

**NATURAL RESOURCES SYSTEMS PROGRAMME
FINAL TECHNICAL REPORT¹**

**R8494: Tracking Social Capital Outcomes and Sustainability of Local
Policies in Natural Resources Management**

Annex C:

**Developing Indicators for Monitoring and Evaluating
Social Capital Outcomes**

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1. INTRODUCTION

Social Capital is an important asset upon which poor people draw in pursuit of their livelihood objectives and improve natural resources management (NRM). As an approach to strengthen Social capital the project uses participatory approaches to formulate byelaws, develop and implement community action plans to enhance adoption of sustainable NRM technologies and Practices to combat land degradation. Various byelaws on NRM were formulated such as controlling soil erosion, tree planting, drinking alcohol, bush burning, controlled grazing and wetland management were formulated. The project strengthened the capacity of policy task forces at village and sub county levels to review, implement and monitor byelaws. Research products were some of the out puts of the project.

The PM&E study was conducted to track the outcomes and potential impacts of social capital; assess the performance of NRM byelaws and community action plans; extent of farmer participation in policy processes; the conditions of sustainability of byelaws and communication gaps. This was done in four pilot communities (Muguli B, Karambo, Kagyera and Habugarama villages) and one non piloting community as a control (Nyinarushengye) in Rubaya Sub County, Kabale district.

A lot of activities have been conducted but not documented. Thus this study will document the process of what has been happening and develop a coherent communication strategy for uptake promotion of the research findings to different target institutions and stake holders.

2. METHODOLOGY

This study was conducted in Rubaya Sub County, Kabale District. Kabale District lies in South West of the Republic of Uganda. It lies between 29° and 45¹ and 30°15¹ East and 1°00¹ and 1°29¹ South. It borders with the district of Kisoro in the west, Rukungiri and Kanungu districts to the North, Ntungamo to the East and the Republic of Rwanda to the South. The district has a total land area of 1,827 km² out of which Arable land is 1,695km², water bodies 48.5km², swamps/wetlands 79.4km² and marginal land of 41.1km². About 75% of the Arable land is owned according to customary laws. It has a population of 461,785 people. Of these, 245,453 are females while 216,332 are males. The district has 96,869 households (KDLG, 2002).

Rubaya Sub County is located close to the Uganda-Rwanda border in the South-western part of Kabale district, and is 40km from Kabale town on the Katuna-Muko road. The sub county borders Bufundi Sub County in the Northwest, Kitumba Sub County in the Northeast and Kamuganguzi Sub County in the East. The sub county has an estimated population of 25,773 people, 30% of which are literate (Population and Housing Census 2002). The population density ranges between 325 to 349 persons per Km² (KDLG 2002). The area is predominately occupied by Bakiga, although there a few other ethnic groups found in the area mainly the Banyarwanda and Bafumbira. Subsistence agriculture is the main occupation of the local population. It is a mountainous, remote and marginal region with very fragile economic ecosystems that are susceptible to soil erosion and landslides, and is experiencing acute environmental degradation.

The study was conducted in four piloting communities (Habugarama, Kagyera, Muguli B and Karambo) and Nyinarushengye agro forestry community as a control for comparison. This community was selected because it was once working with an NGO (CARE-FIP) which later pulled out. Thus, this would enhance generation of the conditions of sustainability in case the project came to an end. Group interviews were conducted with the village PTF, local community, sub county PTF, and local leaders. The sub county PTF constituted of the sub county chief, the secretary of production, LCIII chairman, NAADS coordinator and chairman of farmers' forum and two representatives from the village PTF. The instrument of data collection was a checklist. The group interviews with the different categories of stakeholders generated information on what had been done, the performance of byelaws, performance of PTF, implementation of community action plans, and the impact of PTF on NRM. The After Action Review (AAR) tool was used to establish what was supposed to happen, what happened, what went well and what could have gone well and lessons learnt. The reasons for the different occurrences were stated.

Table 1: Participation in community meetings for indicators development

Village	Sex		Total
	M	F	
Muguli	13	28	41
Karambo	9	7	16
Kagyera	21	17	38
Habugarama	-	-	-
Nyinarushengye	6	9	15
Sub county policy meeting	13	4	17
Total	62	65	127

3. RESULTS

3.1. Participatory selection of byelaws for tracking study.

Through participatory processes, each village selected two byelaws out of the 6-7 formulated which they thought they would be able to implement and monitor. These are presented in the table below.

Village	Byelaw selected	Reason
Muguri	1. soil and water conservation by making trenches 2. Tree planting	- stop soil erosion -Reduces surface run off - can be used as a bench mark/feasible indicator - soil fertility improvement - reduced water loss - provides stakes, timber and animal fodder
Karambo	1. soil and water conservation by making trenches and tree planting 2. controlled grazing	- stop soil erosion -Reduces surface run off - less destruction of crops

		- grass bunds are not destroyed
Kagyera	1. soil and water conservation by making trenches and tree planting 2. controlled grazing	-reduce soil erosion -restore soil fertility - grass bunds are not destroyed - reduce soil erosion

Behavioral changes anticipated in 3-6 months

- Unity and corporation i.e. people working together
- PTF resolving conflicts between those who destroy the trenches
- Local community members go to other villages to teach others.
- The PTF and the local community continue to have meetings with the sub county to see how the PTF will continue working.
- Saving culture to purchase inputs needed for NRM
- Development of community action plans
- Monitor and enforce the 2 byelaws agreed selected

Apparent behavioral changes

- Reduced theft of crop produce
- Improved unity and corporation i.e. people working together (e.g. by sharing tools, meat, grass, and manure).
- Proactive information seeking by people outside and within the community
'...the village is now known. It's always referred to in the district - visitors normally come. Therefore we are proud of that...' said one of the farmers.
- Demand from non community members to buy land
- Reduced conflicts through consensus and negotiation

"...at first those with land and livestock had conflicts but when they formed byelaws, they realized collective action was very important ..." said one of the farmers.

- Those who had not participated in community meetings e.g. when forming PTF are now participating. It is easy for the community leaders and PTF to mobilize members for meeting and they easily attend when called upon.
- Respect of PTF, community monitoring team and fellow members.
- The task force has no side
- When the PTF monitors, those who fail to implement are counseled and advised.
- PTF has at least resolved some conflicts within the village and outside the village.

Involvement in monitoring and evaluation of bye laws

From the community meeting, it was agreed that the PTF (Sub County and village PTFs) and TOT should monitor the byelaws. However, in Kagyera village, a monitoring committee was elected comprising of 3 people to assist the PTF to monitor effectively. The PTF was considered because it was elected and is trusted by the community and more so their performance was regarded as effective. There was a variation in the frequency of monitoring across the 3villages. It was suggested that monitoring be conducted every after 15 days (Muguli), weekly as it

has been done at village level and after 3 months by the policy task force (Karambo) and every season (Kagyera).

The roles and responsibilities of the monitoring team will be:

- Monitoring the implementation of bye laws
- Calling for community meetings
- Make reports
- Community sensitization
- Collect information for the community
- Participate in exchange visits
- Resolve conflicts

Perception on Byelaws

The soil conservation Byelaw has increased land productivity. However, it is laborious and demands a lot in monetary terms (a trench costs 7000/=). The women, poor, old and widows violate the byelaws because they can not afford the costs involved in implementation. Besides this, there is need for continuous sensitization within and other villages to foster effective implementation. Implementation of the bye laws is further hampered by people's negative attitude.

Byelaws impact on NRM.

- Reduced soil erosion thence improved land productivity
- Conflict resolution to some extent through the PTF committee.
- Unity and collective action
- Controlled grazing
- Conflicts among implementers and non implementers
- Information flow through exchange visits.
- Participation of women on leadership committees.

Community action plans

All the pilot communities developed action plans which included the following activities

- Formulating byelaws,
- Having village meetings/workshops.
- Having T.O.Ts.
- Sensitization about byelaws by use of drama.
- Trench making/check dams
- Having Nursery beds and planting trees
- Having Exchange visits
- Having Sub county policy task force meeting.
- Attending Workshops and seminars
- Get tools form AHI and other Partners
- Sensitizing other villages on Nursery beds, after that, make trenches.
- Monitoring and evaluation
- Forming a task force at community and sub county level
- Get support from non participating organizations

Most of these activities were achieved and reasons advanced for the success are:

- Existence of hard working PTF
- Community appreciating their problems
- The communities are united and work collectively
- Existence of AHI that facilitates the program
- Existence of other organizations like NAADS in the communities

Activities which were not realized included: formation of a drama group to perform a play on NRM, poor germination of Alnus due to lack of knowledge. However, communities plan to plant the trees again and plan to have more exchange visits since they were not enough.

3.2. Community Indicators for assessing performance and sustainability of Policy Task Force (PTF)

In the four villages, project monitoring and evaluation was conducted to assess effectiveness of the PTF in byelaw implementation. From the community meeting, it was indicated that the PTF was effective and the following were the measures of effectiveness.

The elected committee

- Has been calling meetings.
- Monitor the implementation of byelaws e.g. trench construction
- Call people to make Nursery beds.
- Keep and distribute tools
- Distribute tree seedlings
- Receiving visitors
- Working closely with AHI staff.
- Represent community at the sub county

Performance of the PTF was enhanced by

- Willingness of the community to participate
- Availability of resources from participating organizations
- Participation of the community in byelaw formulation
- Involvement of local leaders
- Formation of associations like Kagyera Task Force Association to contribute funds to buy tools and tree seeds
- Exchange visits

How the PTF can be more effective

- When farmers continue to put byelaws in practice
- Linking the PTF to the sub county, district and other participating NGOs for support
- Equip PTF with conflict management and leadership skills
- Involvement of local government leaders in byelaw implementation
- Continuous sensitization of the communities on byelaw implementation
- periodic community meetings

Sustainability

- More tools to be bought
- Lobbying and advocacy (linkage to other organizations e.g. NAADS, ECOTRUST and KULIKA)

- Farmers groups have saved money, lend it to community members to generate profits which can sustain community activities.
- Linkage to market to sell produce, make savings and purchase tools for NRM
- Acquiring a seed bank
- Developing new action plans
- Capacity building in conflict management and leadership skills
- Period meetings and exchange visits to other communities with similar byelaws
- Recognition of PTF by the sub county so that the activities are incorporated in the sub county and district work plans and budgets

“...Local leaders, parish chiefs, sub county chief and local council should be involved. This will make it more sustainable. Payment of 10,000/= was passed at sub county - as byelaw for those not making trenches, but this has never been implemented, if the sub county council and leadership are involved then it would work - need for training PTF local leaders to show them the loop holes, and the local community...” said by one of the community leaders

Indicators of PTF performance were as follows:

- When they call meetings at village level and sub county
- When Byelaws are put into practice and implemented at their plots- Exemplary
- Attend meetings at the sub county and participate in exchange visits
- If they resolve conflicts.
- If they go to other villages to teach others
- If they are cooperative and continue convincing and not harassing.
- Identify gaps in the byelaws
- Develop community action plans
- Make periodic reports and feedback

Perception of community on PTF

Although farmers have implemented byelaws, they believe that those who are not implementing are favoured by the PTF. The PTF is willing to work without pay. However, those who do not implement think that the PTF is given money to carry out their activities.

What has been the impact of PTF?

- Bye laws are obeyed
- Consensus building incase of conflicts
- Neighboring communities are also practicing soil conservation measures
- Bridged the gap between community level and sub county level
- Trenches are constructed with live barrier system in place.
- There are community Nursery beds and tools
- Improved knowledge on soil conservation e.g. some farmers are being consulted by those out side the village and those within the village. Other villages (Kacerere and Kibuga) came to get trees to go and plant in their villages.
- Farmers attend meetings

What the PTF has failed to accomplish

- There is still a failure in having all people work together. The health bodied, poor, sick, widows are supposed to work together to construct trenches but the young who are health bodied refuse deliberately
- Implementation of the bye laws at the same time due to societal complexity. It also not easy to implement all bye laws because it needs time and resources which the PTF may not be able to get immediately.

“...Neighbours from other villages still do not put byelaws in practice. In Buramba, one member destroyed a trench which was constructed in his plot. We went to the village where he stays to collect him and the local leader there did not support us...” stated by one of the participants.

This indicates that there is lack of corporation between leaders from neighbouring communities

- Failed to separate politics from community bye law implementation

Participation by gender

The program has sensitized the community on gender and changed there attitudes for instance, women and men work together on nurseries, constructing trenches, attend community meetings and participate in sensitizing communities as well as exchange visits. There is equal treatment of both men and women in decision making and the PTF committee is composed of men and women. Due to the value attached to the land by women, they come up with issues to concerning natural resource management and consult men on how to address them. Not all male farmers work together with their wives implying that there is need for more training in gender

Most of the community activities were conducted by women because:

- Men migrated
- Men are always working on waragi and drinking
- Women are always in the garden.

Information gaps

- Information on accessing inputs and resources e.g. agricultural inputs and tools
- Market information on the prices of produce, cost of inputs and where to sell the produce
- Need more information on natural resource management byelaws.
- Information on citizenship, qualities of a good citizen, roles and responsibilities of a citizen, living with one another in harmony
- Constitution of the government byelaws and policies related Information
- Gender related information and Domestic Issues.
- Conflict management
- Tree planting and management
- Leadership skills.

Information on byelaws

- Lobbing and advocacy
- Experiences from other communities e.g. how to manage natural resources how other people have been doing it.
- More community sensitization of community on byelaws

Approaches used to share information

There are various approaches used to share information in the communities. Some of the approaches mentioned included:

- Farmer to farmer
- Community meetings
- Church
- Exchange visits
- PTF meetings
- Local council meetings
- Demonstration
- Radio services
- Through letters and posters
- House to house communication
- Workshops

What do they need to share Information effectively?

- Radio programmes by farmers representatives to talk about what they have been doing
- Community notice boards
- Call community meetings for reminders
- People's willingness to share information with others
- Avoid adulteration of information
- Having community libraries with translated literature (Rukiiga)
- Regular exchange visits
- More sensitization
- Regular community meetings
- More demonstrations
- Capacity building of TOTs
- Good relationships among community members

How will you address these?

- Making community action plans
- Lobbying and advocacy
- Linkage with the Sub County and District
- Work with the local leaders

Community expectations in 3-6 months

In the next 3-6 months the three communities expected to do the following

- Continue with the current activities
- Continue to implement the byelaws
- Linking the policy task force to the sub county
- Continued sensitization of the local community on NRM
- Continued monitoring of NRM activities by PTF
- Open up filled up trenches
- Save trees for future seed multiplication
- Make more nursery bed tree seedlings
- More training in NRM will be sought
- Attend more workshops and exchange visits
- Grow more vegetables in addition to trees
- More sensitization to be given to local leaders on byelaws
- Organize regular meetings at village level

- Increase agricultural production through improving soil fertility
- Make savings to purchase more tools for NRM
- Scaling up and out of NRM activities within and neighboring communities

Within this period, the communities further expected the policy task forces to

- Continue monitoring the implementation of the soil conservation byelaw
- Scaling out to other communities in order form other village committees.
- Continued lobbying and advocacy
- Sensitizing communities on saving culture to sustain NRM implementation activities
- Continued conflict resolution
- Develop new community action plans
- Be sensitized on byelaws and implementation

Local Indicators of performance

- Community willingness to plant trees and get seeds on their own.
- Community continuous willingness to attend meetings
- When the PTF monitors the implementation of the byelaws
- Trees and grassed planted along the trenches
- Increased number of trenches
- Reduced soil erosion
- Records of meeting attendance
- Reduced conflicts on NRM
- Neighbouring communities seeking information on NRM
- Neighbouring communities implementing NRM activities
- Number of members within and outside the pilot communities consulting the PTF on NRM
- Records showing the number of community members being implicated
- Increased productivity
- More farmers involved in implementing byelaws
- Increased community savings to invest in NRM activities
- Reports from PTF to show progress on NRM

Project participation and performance indicators

Project indicators of participation

- Types of participation
- Nature of participation
- Extent of participation
- Motivation and expectations from participation
- Who participates
- Scale of participation
- Number of farmers participating in various policy meetings, task forces and community NRM activities

3.4. Comparison between project indicators and community indicators

At the concept note stage, we identified the following indicators for tracking participation, performance and sustainability of the project.

While not anticipating local indicators for tracking social capital outcomes, some of the indicators below will be relevant:

Performance areas	Possible indicators
Participation	<ul style="list-style-type: none"> • Types of participation (Using Pretty's classification from passive participation to self-mobilisation) • Nature of participation (roles and responsibilities) • Extent of participation (frequency) • Motivation and expectations for participation • Who participates? (gender, wealth, location, position) • Scale of participation (plot, farm, household, watershed, community) • Number of farmers participating in various policy meetings, task forces, and community NRM activities
Performance	<ul style="list-style-type: none"> ▪ Number of meetings of task forces, and policy meetings at community levels ▪ Number of action plans developed by communities ▪ Level of compliance of the byelaws ▪ Number of conflicts reported to the task forces ▪ Perceptions of the effectiveness of byelaws and taskforces by community members ▪ Leadership skills of task force members ▪ Extent of collective action in NRM
Sustainability	<ul style="list-style-type: none"> ▪ Ability to take independent action and decisions ▪ Ability to analyse and explain issues and problems Level of awareness and knowledge of byelaws ▪ Decision making ability and skills ▪ Local commitment and willingness to continue ▪ Linkages with other R&D organisations ▪ resources mobilisation ▪ Number of new activities initiated by farmers ▪ New problems identified and solved ▪ Group self reliance: independent action taken by groups or farmers ▪ Degree and mechanisms of technology/information exchange ▪ Sense of collective will and solidarity ▪ Sense of ownership and responsibility ▪ Degree of dependency to RD agencies
Outcomes and Potential Impacts	<ul style="list-style-type: none"> ▪ Farmers' perceptions of benefits vs costs ▪ Farmers' perceptions of changes in land degradation ▪ Evidence of positive change in NRM ▪ Perceptions of costs and benefits by different group ▪ Potential adoption of NRM technologies ▪ Changes in farmers' practices ▪ Extent of demand of NRM technologies ▪ Increase in production (yields) and productivity ▪ Levels of satisfaction and farmers' expectations ▪ Change in NRM policy formulation ▪ Extent of land degradation (Soil erosion measures) ▪ Erosion control ▪ Land quality ▪ Effectiveness and performance of NRM technologies (technical and local indicators)

These indicators were then compared to community indicators to identify those that were common, specific and similar.

Performance area	Project indicators	Local indicators
Participation	<ul style="list-style-type: none"> • Types of participation • Nature of participation • Extent of participation • Motivation and expectations from participation • Who participates • Scale of participation • Number of farmers participating in various policy meetings, task forces and community NRM activities 	<ul style="list-style-type: none"> • Community continuous willingness to attend meetings • Records of meeting attendance • More farmers involved in implementing byelaws
Performance	<ul style="list-style-type: none"> • Number of meetings of task forces and policy meetings and community meetings at community levels • Number of action plans developed by communities • Level of compliance of the byelaws • Number of conflicts reported to the task forces • Perception of effectiveness of byelaws and task forces by community members • Leadership skills of task force members • Extent of collective action in NRM 	<ul style="list-style-type: none"> • When the PTF monitors the implementation of the byelaws • Trees and grassed planted along the trenches • Increased number of trenches • Reduced soil erosion • Reduced conflicts on NRM • Neighbouring communities seeking information on NRM • Number of members within and outside the pilot communities consulting the PTF on NRM • Records showing the number of community members being implicated • Reports from PTF to show progress on NRM
Sustainability	<ul style="list-style-type: none"> • Ability to take independent actions and decisions • Ability to analyze and explain issues and problem • Evidence of positive change in NRM • Perception of costs and benefits by different groups • Potential adoption of NRM technologies • Changes in farmers practices • Extent of demand of NRM technologies • Increase in production (yields) and productivity 	<ul style="list-style-type: none"> • Community willingness to plant trees and get seeds on their own • Neighbouring communities implementing NRM activities • Increased productivity • Increased community savings to invest in NRM activities

	<ul style="list-style-type: none"> • Level of satisfaction and farmers' expectations • Change in NRM policy formulation • Extent of land degradation (soil erosion measures) • Erosion control • Land quality • Effectiveness and performance of NRM technologies 	
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Table of common and diverging indicators

Performance area	Common indicators	Specific project indicators	Specific local indicators
Participation	<ul style="list-style-type: none"> • Nature of participation • Extent of participation • Who participates • Scale of participation • Number of farmers participating in various policy meetings, task forces and community NRM activities 	<ul style="list-style-type: none"> • Types of participation • Motivation and expectations from participation 	
Performance	<ul style="list-style-type: none"> • Level of compliance of the byelaws • Number of conflicts reported to the task forces • Perception of effectiveness of byelaws and task forces by community members • Extent of collective action in NRM 	<ul style="list-style-type: none"> • Number of meetings of task forces and policy meetings and community meetings at community levels • Number of action plans developed by communities • Leadership skills of task force members 	<ul style="list-style-type: none"> • When the PTF monitors the implementation of the byelaws • Neighbouring communities seeking information on NRM • Number of members within and outside the pilot communities consulting the PTF on NRM <p>Reports from PTF to show progress on NRM</p>
Sustainability	<ul style="list-style-type: none"> • Evidence of 	<ul style="list-style-type: none"> • Ability to take 	

	positive change in NRM <ul style="list-style-type: none"> • Potential adoption of NRM technologies • Changes in farmers practices • Increase in production (yields) and productivity • Effectiveness and performance of NRM technologies 	independent actions and decisions <ul style="list-style-type: none"> • Ability to analyze and explain issues and problem • Perception of costs and benefits by different groups • Extent of demand of NRM technologies Level of satisfaction and farmers' expectations • Change in NRM policy formulation • Extent of land degradation (soil erosion measures) • Erosion control • Land quality 	
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3.3. PROCESS MONITPRING AND DOCUMENTATION

These household and key informant interviews were enriched with **focus group discussions** with the village and sub-county policy task forces (PTF). The focus group discussion sessions were organized to facilitate a collective process of reflection and analysis of the performance outcomes, and sustainability of the PTF from the perspectives of its members. To facilitate this process, we used the **After Action Review (AAR)** tool, a participatory tool for facilitating collective learning by talking, thinking, sharing and capturing the lessons learned about a completed activity before they are forgotten (CIDA 2002). AAR has the advantage of creating a climate of confidence as it focuses on constructive feedback, and explicitly recognizes positive contributions. AAR was facilitated using the following six questions: (i) What was supposed to happen? Why? (ii) What actually happened? Why? (iii) What is the difference? Why? (iv) What went well? Why? (v) What could have gone better? Why? and (vi) What lessons can we learn?

These basic AAR questions were further specified to include a number of issues including: (i) what is the purpose and the motivating factors of policy taskforces? (ii) who is included, participating, what is the profile of members); (iii) what is the task force about (function, scope, ownership, management, themes) ?; (iv) how did the policy task force develop over time (lifecycle); and (v) what do government and community institutions and individuals gain from the policy task force? These questions provided the opportunity to evaluate what works, how and why, but also to induce a process of collective learning and sharing empirical examples and experiences with the policy task forces and byelaws, and to examine

the critical factors that may have contributed to successes or difficulties in their effectiveness and performance. Follow up sessions were organized to identify strategies for dealing with challenges and obstacles to successful implementation and sustainability using the '*Peer Assist*' tool. This tool is an aid to collective problem solving between colleagues based on their experience and analysis. Selected members of village task forces with an important challenge were facilitated to present their situation for analysis, giving necessary details and stimulating constructive discussion and analysis of different strategies for coping with such obstacles.

We illustrate the types of results with four case studies.

3.3.1. Case study 1: Nyinarushengye Agro forestry group

This group is composed of 16 members (6 females and 10 males). Over a period of time, membership reduced from 25 to 15 due to migration and expectations of quick returns by some members. Initially, the group was working with AFRICARE on Agro forestry, which was later replaced by CARE -FIP which phased out after one year. While working with the two organizations, the group was involved in:

- Tree planting and construction of trenches to reduce run off
- Irish potato growing for multiplication

The group is registered under NAADS and had a committee of 9 members (chairman, vice chairman, secretary, vice secretary, treasurer, and 4 committee members) whose role was to call meetings for trainings. The committee was still active and the group has continued to multiply Irish potato. Under PMA the group received Irish potatoes which were planted.

Group Action plan.

The group had an action plan which was developed by all group members. The action plan included activities like

- Planting agro forestry trees
- Planting Irish potatoes
- Training on agronomic and post harvest handling practices
- Seed potato multiplication
- Group savings
- Exchange visits
- Monitoring and evaluation of group activities

All the above plans were going on except tree planting which has not been successful due to lack of seeds and seedlings.

SUB COUNTY POLICY MEETING

It is composed of 15 members including the, Chairman LC III, 3 parish chiefs, chairman sub county farmers' forum, Secretary for Production, sub county NAADS coordinator, 2 VPTF representatives from each of the four piloting villages and ex official including sub county chief, NGOs representatives and AHI staff .

Activities carried out in the past 3 years

- Held meetings and workshop at the sub county organized by AHI

- Attended meetings with sub county local council to pass the communities NRM byelaws
- Monitored what the communities and the village policy taskforce were doing
- Participated in inter village exchange visits
- Received tree seedlings from Lake Bunyonyi Integrated company and distributed them to communities
- Assigned roles and responsibilities to village representatives on the SPTF
- Requested the sub county council to pass byelaws, which were approved and implemented at sub county level
- Given feed back to the communities, VPTF and the sub county council
- integrated community NRM activities in the NAADS program and other partners' programs in the sub county

Byelaws

The group had byelaws which were formed when the group was starting. These included:

- Any member who does not come to cultivate with the group be fined.
- Every member should be well behaved/disciplined.
- Every member should teach/ train others within and outside the group.
- No one should abscond from group activities without giving prior notice
- NRM byelaw: If you cultivate your land, you must establish a trench "Fanya Chin" to control water and reduce soil erosion and to reduce on the spread of diseases.

What was happening at the time of the study: Better off or worse off

The group was better off because:

- Group practiced what they were trained
- Group members cooperate and continued to have meetings
- Shared Irish potatoes for seed multiplication
- The committee monitored the planting and distribution of Irish potato among the community members
- Communal soil conservation through trench construction and making nursery beds
- Collective action in solving problems in the community.

There was a positive change in terms of livelihood by the time CARE-FIP phased out from the community. Nonetheless, the community continued experiencing challenges like:

- Continued land degradation due to high labor demand and lack of tools
- Lack of agro forestry seeds
- Pests and diseases especially in Irish potato

As regards NRM, there was no progress because:

- The tree seedlings dried.
- The trenches were refilled by runoff.
- Sensitization was directed to the group and not the entire community
- Demonstration was first attended by the group and not whole community

- Byelaws are being implemented by the group but not the entire community which has affected group members in relation to soil conservation among
- Lack of funds to purchase inputs

There were behavioural changes ever since the group started and some of them included

- Discipline among group members e.g. avoiding to release confidential group information to non members
- Unity and collective action
- Members like the group.
- Sharing of group benefits e.g. Irish potato
- Learnt to keep group affairs that may disintegrate the group
- Willingness to share non classified information with non group members

Gender participation

- Both men and women participate in group activities such as meetings, agricultural activities. In case a group member is not in position to participate, s/he sends a representative e.g. son or daughter or any other household representatives.
“...rules have impact otherwise the group would have fallen. If they fine you today, tomorrow you come early. If you don’t come for group work you pay 1000 as fine...” one member commented

Conditions for sustainability

- Committed and dedicated members on the committee
- The committee was elected and respected by the group members
- Held Regular meetings (weekly basis)
- Team work among group members
- Members are in the same community and not scattered thus easy to mobilize
- Lobbying and advocacy
- Group saving to sustain group activities
- Strengthening the NRM byelaws
- Continuous monitoring and evaluation of group activities
- Scaling out activities e.g accepted NRM technologies
- Have defined Roles and responsibilities (constitution)

Expectations in the next 3-6 months

In the next 3-6 months, the group expected to carry out the following activities:

- PTF to monitor group activities during exchange visits
- Identify gaps experienced during the implementation of the byelaws and address them in the sub county meetings
- PTF to acquire tree seedlings and distribute them to the community through farmers groups
- Continue liaising with the local government for support
- PTF hold regular meetings and give feed back to the sub county council about the progress of the community activities
- Continue to hold meetings at village level
- Training in leadership and management skills
- To develop community action plans

- Continue sensitizing the community about byelaw implementation
- Continue collaborating with the S/C and other participating organizations
- Scale up and out activities by working with sub county

By this insight, the PTF feels that land degradation will be reduced to sustain the communities' resources and hence improved livelihoods

Local Indicators of performance evaluation

- Existence of an SPTF work plan
- Sub county policy taskforce members attending meetings
- Sub county local council passing and implementing similar byelaws in other villages.
- Number of community members complying with the byelaw implementation
- Reports from the VPTF and the SPTF
- Continuous monitoring of community activities
- Integration of community activities into the sub county action plan
- When Chairman LC III continue calling meetings to give reports to SPTF and sub county council.

Two most important byelaws

1. Soil and water conservation byelaw through trench making and planting live barriers like trees and grasses
2. Controlled grazing - no body is supposed to graze his/her animals on someone else's field

Reasons for selection of the byelaws were:

- Increase in number of trenches reduces soil erosion
- According to the reports, the two byelaws had created more impact on community natural resources
- These are the same byelaws that have actually been passed by the sub county
- Most of the complaints that come at the sub county are related to soil and water conservation and animals that destroy crops
- There is a possibility of the NAADS Programme availing the community with some NRM inputs through the sub county

Behavioral changes

- Farmers have appreciated the byelaws and are implementing them. Those who violate the byelaws are penalized
- There is negotiation between parties before one grazes his/her animals on someone else's land
- Unity and cooperation between farmers and policy task force
- Known each other from the villages through sharing the problems and experiences.
- Consultation of the SPTF by the sub county council, NGO's and local leaders like the LC V councilors

Involvement in monitoring and evaluation

The meeting revealed that the SPTF should take up the responsibility of monitoring and evaluating the byelaw implementation since it was aware of the groups involved in NRM and was in position to solicit funds from the district to

support their activities. They suggested that monitoring should be done after every season (3 months before the planting season).

To make the SPTF more effective and sustainable, the following need to be met

- Capacity building of the SPTF through trainings workshops in issues like lobbying and advocacy
- More sensitization about the government laws and relate them to community byelaws.
- Market information and linkages for agricultural produce
- Writing periodic reports
- Holding regular meetings
- SPTF members be exemplary
- Strength the partnership with the local leaders and sub county
- Team spirit

Indicators of sustainable community implementation of the byelaws

- Continuous monitoring by the SPTF members
- Active participation of the VPTF, sub county leadership and community in byelaw implementation.
- Participation of the community members in monitoring of the byelaw
- Reduction in soil erosion
- Team work

Perceptions of community members on SPTF

- Community members complying with the byelaws, feel we are effective
- Link the community to the local government as well as other communities
- The SPTF has the feeling of the co-ownership in byelaw implementation
- Non compliant community members feel the SPTF are paid
- SPTF members are exemplary in implementing the byelaws

Perception of community members on Byelaws

- Compliant community members express the positive impact realized eg soil erosion reduction and increased collective action
- The community feel the sense of ownership because they participated in the byelaw formulation

Constraints faced by SPTF

Lack of resources to facilitate SPTF activities like meetings, transport etc

Strategies for sustainability

- Resource mobilization from other supporting organizations like NAADS
- Develop SPTF action plans
- Mobilization of resources through formation of an association at the sub county level
- Have our own lunch packed

PTF action Plan

The PTF had an action plan that had the following:

- Monitoring the four villages and reporting
- Periodic meetings at the Sub County
- Periodic exchange visits

Participation by Gender

It was felt that there was collective participation in the meetings among the PTF members to share experiences and making decisions. However, it was observed that women representation on SPTF committee was low. This had an implication on gender

Constraints in implementing the byelaws

From the discussion with SPTF, there were some constraints as regards to implementation of the byelaws and these included:

- The aged who may not afford to make trenches
- Land fragmentation that leads to leads to compliance by non community member where the byelaws are implemented
- Poverty among the community members leading to low implementation of byelaws like construction
- Interference by politicians in byelaw implementation derail NRM activities

Ways of improving effectiveness of the byelaws

Through discussion with the SPTF members it was observed that byelaws could be made more effective through:

- Continuous sensitization
- Capacity building of the SPTF in community mobilization
- Lobbying and advocacy in other organization in support of byelaw implementation

Communication gaps with SPTF

There were some communication gaps realized through group discussion with the SPTF members. These were:

- Information dissemination channels over a large area
- Sensitization on community byelaws
- Market information for agricultural produce
- Literature in local languages
- Information on crop pests and diseases

Present ways of information dissemination

- Farmer to farmer communication
- Through meetings, workshops and seminars
- Through churches and public places
- Through letters
- Through exchange visits

How to improve information dissemination

- Develop a video coverage on byelaw implementation activities

Recommendations

The project (byelaw Implementation process) created some impacts in the three communities through tangible and behavioral changes. Where these byelaws were implemented on NRM activities, it was observed that soil erosion and surface runoff reduced and hence improving the soil quality and crop yields. Nonetheless, there were some constraints in byelaw implementation in all the communities. Hopefully, recommendations below could be used to address the loop holes observed.

- Hold sub county stakeholders' workshop to give feed back on the PM&E report and seek for solutions for areas that need interventions
- Capacity building of the PTF on the needed skills in order to improve in byelaw implementation
- Develop action plans at both village and sub county levels for easy lobbying of resources to implement byelaw activities
- Development of video coverage by AHI and its participating partners on byelaw implementation in the communities for easy scaling out of NRM activities in other communities
- Development of market information system for agricultural produce in order to improve household incomes
- Sensitization of the PTF and entire communities on legal issues and conflict resolution
- Enhance radio Programs and exchange visits for PTF and community representatives to enhance scaling out NRM activities
- Feedback of the analyzed information like soil analysis to community for proper management of the environment
- Establishment of the community library with the relevant information to be linked to the Telecenter.
- Periodic follow up to assess the level byelaw implementation
- Mentoring of the training of trainers for sustainability purposes.

3.3.2. Case study 2:

Ms SATURDAY MERCY of Muguli B Village is a PTF member (secretary) is currently a member of 3 groups,

- 1.- Bayore Kweterana group for farming, Contributing and lending out money to group members and Helping the members who have lost their household members ones. She is the only one in this group The other one who was in this group got married?
- 2.- Muguli B Tugwanise Obworo. For farming-Africare facilitated its start it. Any body is free to join even if it is from one family.
- 3- Bataka Kwezika group. For helping some one who has lost a person, giving timber, for helping sick people, transporting them to the hospital.

Working in a group to dig trenches or plant trees.

People don't come together to dig trenches, every one is supposed to dig on his or her own field except when they are **just trenches** and they cooperate together.

- Every one participates. It's a law but at first they first could refuse but now they do it willingly due to increased awareness and the positive out comes that have come out

Community assessment.

-People are now aware of the benefits of participating and working together especially attending meetings because they learn from one another but previously we used not to join others in meetings and work collectively.

-People co-operate willingly on the implementation of these bye-laws.

-They never contribute money as a whole village but only in organized groups.

These days contribution is at village level not group level.

However farmers are not willing to give out money. Which shows that most people are poor?

-The spirit of helping others especially the poor has not changed Instead its worsening .They do not help any how. Only to close friends or relatives who are very needy.

-The extent of breaking norms: These days people do not break norms and bye-laws because they fear being imprisoned and at the same time some have realized and have seen the benefits resulting form these bylaws to their soil.

-Women now speak in public but 3 years ago they were shy, not aware. They also consider their views unlike before.

-All women participate and Every one has a responsibility regarding mgt of natural resources.

-Men now respect and consider women, they consider women wherever they are in a meeting unlike before and this is attributed to increased awareness that Women are also equal to men.

Awareness of the policies and byelaws.

People are aware of the bye law and incase you do not comply they imprison you. Sensitization of byelaws was done by leaders we chose in our village and AHL on natural resources management and was mainly for the whole village. While AFRICARE and CIAT called people but only those willing remained.

Assessment of different bye laws.

The assessment of different bye laws on performance is very good. They are working well, people are obeying, the benefits are good, people are very happy they have now managed their land very well.

People will not get encouraged to continue obeying and implementing the byes law in case AHI doesn't continue with them. If the PTF or the LCs becomes irresponsible and in case people violate the laws then they will not be able to continue. In addition it's very tiresome because today you dig a trench tomorrow you find it is filled because of soil erosion or rain.

Bye laws violated -reasons.

Some women do not make trenches because they do not have energy, its done by men and at the same time some Poor women do not have money to give some one to dig the trenches.

Sometimes people do not look after the tress because they are busy doing other things which provides returns in shorter period like brewing beer and growing Irish Compared to trees which take long period.

Some others are lazy. It is rare however for most people to find that they are violating the byelaws because they fear fines.

Positive changes on peoples lives.

The Policy task force at fight used to fight with Community Members to Obey byelaws. And We could at least put in force people to work or obey the bye laws but because they have now realized some benefits people are now Implementing Willingly.

Problems faced in enforcement these bye laws.

The available tools to use to implement the bye-laws e g pangas, spades, hoes are not enough for the whole community. They share them in groups and whenever one member gets it, Its not easy to give to the other member also to use before finishing.

There are some areas which are Uncultivable and therefore some community Members cannot afford to work-put trenches where they are not growing crops. because they don't see the reason why.

.What was supposed to happen.

We were supposed to contribute money for those who are unable to work on their own plots simply because are sick or do not have power or are Old.

From the beginning we were supposed to help each other even in trench making in his or her own field.

We were supposed to practice what we were discussing in meeting but few put in practice all this.

However some People were willing to co-operate. The PTF members were not harassing the communities and could first advise whoever violated and then if anybody persisted could be brought to LCs to be fined and again go and follow the byelaw.

In this village the heavy involvement of rich people in byelaw implementation encouraged almost everybody to get interested like Habarwasha. So the poor were like "since the rich have done it why not us."

We were also visiting each other to see what was happening in other villages and these visits involved the sub-county chiefs and LCs

At least where we had reached and what we were doing so far everything went well because they had seen problems with their land for example houses which were taken by soil erosion.

-The stubborn ones were also willing to co-operate. EXCEPT lack of trainings and radio programmes by farmers to discuss what we have been doing in Muguli Village.

Maximizing compliance with the bye laws

In order to maximize compliance with the byelaws Mercy said it's important to be very patient with the people because byelaw implementation is expensive in terms of time, behaviour and money.

More sensitization also is much needed.

What happened?

- Money was given to people through the committee we formed with the whole village called the PTF to buy tools.

-Formed a sub-county task force at sub-county comprising of local leaders.

-Communities were taught how to look after their land by digging trenches and planting trees.

-The PTF and those who were trained could go to sensitise and teach other people about these bye laws.

-Increased co-operation among community members, LCs and PTF which has brought about development. When people complied with the bye laws with a good heart every one has come up.

What needs to be done next time for improvement

- Extend (AHI) more years to be working with the people .
- Continuous sensitization about byelaws and their importance.
- Conduct more visits
- To keep on visiting farmers
-

Evidence for empowerment and Gender dynamics

- People now work on their own without strong supervision from AHI, PTF, and LG

- There are now fewer conflicts in homes compared with the previous years although at a higher rate at village level.

Sustainability of program objectives

They will be weak but continue because they will not be getting more visitors from outside. Most of these visitors have been coming through AHI and CIAT. May be if the sub-county continue linking us to these visitors.

People will not be encouraged if they do not get someone to correct them whenever they make a mistake.-Need somebody to keep on facilitating and working with the Policy taskforce.

Recourses for sustainability

There is no money available to continue the work of the Programme. At first AHI used to give some, Stationery, funds for lunch and the PTF members would also contribute but now days we always attend meetings for a short time because no lunch form the policy task force. They have no money. AHI could also facilitate workshops. Communities are poor. May be if NAADS could be willing to do this.

No resources because some of the tools broke so without further funding they will not be able to continue. They are expensive and people are poor.

Observation;

Saturday mercy is Secretary PTF member Muguli Village. She is a dedicated farmer and PTF member. She knows much about the bye-laws and she is implementing them.

Story.

Saturday Mercy is a PTF member in Muguli B village. While I was interviewing her and probing more she had the following to narrate.

You see previously we used to be hit by soil erosion. It was so severe and worse to the extent that one old woman who was my neighbor died when it rained so heavily and her house collapsed. The following day she was found dead in the valley. Another house in this valley collapsed but fortunately no one died in this one....You see we had a problem before the AHI and CIAT came in. Nowadays I see people have developed a spirit of co-operation unlike before .We hold meetings about the bye laws. Also these days when some one is sick people are very quick to help .Every one is supposed to carry the person to the hospital.

You know what I have seen in the past years is great AHI has done a great job because of these bye laws we can now get reasonable yields from gardens. Women are now liberated they struggle to give out their views and even they are consulted this has been brought about by Holding regular meetings on bye laws which has increased women's confidence to speak in Public. has brought this, and gained more confidence.

If these people (AHI) continue visiting us we would get more encouraged to continue doing the work.

3.3.3. Case study 3:

TUMUSIIME BONNY from Muguli B Village is a member of Bakyara kwetungura group which started with contributing money to buy cups and whenever there was famine we would sell and share the money. There are 20 members, 2 men and 18 women. She is also a member of Kwebeisaho group which is comprised of 14 women and it contributes money, lend it and get interest and later share the interest or buy hoes. The group is also Involved in -contributing money, Co-funding money to NAADS and exposing its Members to Attending seminars at sub-county related to NRM.

Bonny says that she has joined other fellow farmers in the village and other villages to work collectively, When contributing money to buy household items and for the fellow farmers, Co-funding to NAADs, Attending workshops with other farmer on NRM by NAADS, CEED. and Making Nursery bed of trees and sharing of trees.

Attending workshops. The number of people who attended varied. At times they Could call the chairmen ,vice chairman, treasurer and other times call the executive and other members.

In Twebeiseho, members of the group are the beneficiaries because when they contribute money and lend it ,get interest and share it. Even some group members benefit because they borrow that money and use it for School fees for their children.

Co-funding to NAADS.

-As members of the group members we got 160kgs of Irish potatoes and 1 sheep
- Attending workshops.- we the participants-group benefited lunch, 500 transport, information on agriculture and they also talked about byelaws.

Farmer's participation in groups

Peoples participation in tree planting and managing tree Nurseries is high as people are heavily involved because they want their soils to retain fertility.

Visiting other farmers

Bonny has ever participated to visiting other farmers in Kachwekaro and ICRAF Kabale when she was still a member of the group under Africare she saw different tree species“ Omuzerifum” She also saw people first putting soil in polyethylene paper and cook it to Kill pests before putting in the tree seedling.

Assessment of the community

1. Participation in community Activities: This is decreasing because if you start when you are 30 and you find you are remaining 20 this shows that there is a decline. This is because most of the people in other areas feel they should participate individually because of (selfishness). These think they are benefiting others more especially if one is rich and the other is poor.
2. Cooperation among people is increasing because people who are near each other eat together, Share or collect fire from one another .people don't beat each other on the way for nothing
3. extent of financial contributions has increased because when you move in other village, you hear people almost everybody saying now to day is to go to a financial group. Another also says lam going to a financial contribution

group. This shows that this has improved. Secondly because of the benefits derived like interest and sharing of what they buy from the money shared, most people are now joining financial contributions.

4. The spirit of helping others especially the poor; - *never happens because I have never seen it. "for example I have bought sorghum grass to thatch my house but I have failed to get somebody to assist me thatch it" "You names is mind your problems of you are poor"*
5. Women confidence to speak in public has improved because we have been attending seminars and going for public meetings to represent our fellow women. This is where we have gained confidence. *"If you go to represent your group at Sub county you have to talk about it."*
6. Men's respect and consideration of women has also improved we are now respected. *When we were sharing trees men were given equal trees as Men. At least each member men and women got about 100 trees.*
7. *Bonny is aware of soil and Water Conservation byelaw and if any body does not do it, the hoe is taken away from him while planting or her and he is brought to the community covet together with the PTF committee and be fined.*

Awareness of the policies and bye laws

She is also aware of the controlled grazing byelaw .She said this was *"Mostly a problem in our village by people from Rwanda. But later the Rwandese also made a byelaw and put somebody at the boarder to get any animal that leaves or enters Rwanda or Uganda.*

Bonny is also aware of the tree planting byelaw. She knows that trees like calliandra and Grivellia should be planted and If anybody fails then is fined.

The bye-laws were formulated in 2002 by the community, the PTF the environment committee in our village .

Even the CIAT, AHI gave us what to use like spades, forks.

Bonny always attends meetings where byelaws are being discussed. We normally meet at village level. Bonny is a member of the monitoring committee to move in the village and see who has and who has not made the trench.

Assessment of different bye laws.

-Bye-law performance is high we were t the sub-county meeting and they said (LCIII and sub-county chief that nobody is allowed/should Cultivate fields without a trench because if people don't look after the soil it will all be eroded.

-Soil erosion bye law is effective because they have the sub-county and village PTF committees, have put there fines; many people are now following it and making trenches.

-Compliance is high because those who don't comply are called by the environment committee (PTF and be advised .

-Benefits derived are high because in the past years, where there were no trenches, production was low but these days production has increased where there are trenches.. We also got tools like spades; folks to assist us make the trenches.

-Participation of community is not so high but at least increasing. The committee is encouraging all people to participate.

Bye laws violated	Reason for violate
1) soil conservation by making trench	<ul style="list-style-type: none"> - At least in this village, most of the people are implement except the old and those who just refuse deliberately. - Secondly there are those who hire land and then they fail to establish a trench. - Those with had land that is far from the village. - Those people outside the village but own land within the village and who don't use it also violate the bye-law.
2) Tree planting	<p>Trees at least were given to all people in the village although some dried.</p> <p>The only problem that leads to violation of tree planting is lack of tree seeds and those people who fear their trees to be grazed on.</p>
3) Controlled grazing.	<p>The government had to put this bye-law in place but later failed. It hasn't been enforced.</p> <ul style="list-style-type: none"> - The committee is not monitoring those who graze freely - Others want pasture for their animals.

Measures taken

Those who violate the soil conservation if he/she does not establish a trench, even if he has 10 workers, all the hoes are taken by the monitoring committee and be brought in the village community court and lose a days work in addition to being fined.

Positive changes in peoples lives.

People in the community now meet together and discuss issues like making trenches

Unity of local leaders PTF and community in implement bye-laws e.g. when judging or Advising those violating, all these are there.

Encouraged collective Action. Almost all community members have been working together on nursery beds and distributed trees to the whole village equally.

There is committees which assist the whole community to implement the bye-law.

This monitors and advises. So far its doing well

Problems in enforcing the bye laws.

There are certain areas in the plots which are hard and have a lot of stones, therefore making trenches needs a lot of labor and money which the poor can't afford

It also very difficult for a woman to make a trench. Trench making needs more of men than women.

Inadequate meetings. We normally hold meetings when people are planting and such seasons are not favorable for meetings.

Maximizing compliance to bye laws.

According to Bonny, in this village there is some degree of compliance because the committee is hardworking and everybody is a participant. But the few who violate still need more.

- Sensitization about the benefits of bye-laws and their implementation
- Continue to have local community meetings at village level.
- Strengthen farmer Advice so that if one implements and the other doesn't, then advise each other so that there is collective implementation

Continuity in implementing the byelaws

Yes. They have at least had some increased harvest. They will continue. They are putting in more effort.

Reasons.

We have not yet planted enough trees on the trenches, to provide timber

- We have so far seen the benefits like increased soil fertility and reduction in soil erosion.
- We already have a committee of environment which will continue to assist us implement the bye-laws
- We already have tools from CIAT and AHI though we need to replace the worn out ones.

NRM.

Bonny says she began experiencing collapsing in her gardens since 2000, 2001, 2003, but in 2004 it reduced because of the trenches she made in her plots.

She has planted trees in the past 3 years near the homestead owned 100 trees. She got the trees from the Nursery bed of AHI-CIAT.

OBSERVATION.

- Bonny is well conversant with the bye law activities
- Wealth rank 3 (ref: to wealth rank in other
- She is a widow with nobody to assist
- Grass thatched house
- When it rained we were sitting inside the house and rain was falling on us.
- She said there is less spirit of helping each other especially poor otherwise the community would have come and assisted her to thatch. However she has already brought sorghum grass to thatch and she said it requires her to pay 5000/= which she doesn't have.
- Bonny has a problem with wind when she thatches her house because there are no trees planted near her home.

COMMENT

- Tools given to them are not enough, are distributed between 3 families
- At times it takes a lot of days without the accessing the tools.

Reasons for weak enforcement of bye-laws in Muguli.

- The bye- laws were made in the four villages, it has been very low to implement them because those people from other villages are not heavily involved when they have land in the piloting villages. When you

report them to their villages, their LC's don't do anything and when reported in our LC's "just buy them alcohol"

Changes that have so far Occurred

In 2002, there was erosion; there was low production, and after learning how to look after soil, somebody who used to produce 100kg now produce 300kg.

Sorghum would be stunted where there were no trenches fields were poor but after some knowledge on soil and water contention though use of trenches when you look at the sorghum you find it has grown long.

- In this village (Muguli) you would find the whole valley filled with water and soil fun the hills but these days you don't get water
- You also see a lot of grass (vegetation) growing in the place where the soil and water conservation measures are , which are ploughed back to the land to add fertility
- Increased Cooperation -people now work together. Almost every person has and knows about a trench.

Negative changes so far.

- Conflicts between those who implement and those who don't implement. There is a monitoring committee which has to ensure that those who violate are fined and make sure they do what others do. But this has encouraged conflict among few people that they are being forced
- Problems of the old women and women who have no children and yet have land. This becomes had for them to make trenches.
- Another problem brought about the bye-law is hatred
- *At times when you hire or rent to somebody and tell him to make a trench on your land because of the bye- law he refuses ,because making a trench is 7000/= and what you want to harvest their can't give you 7000/= . Secondary they say (poor farmers who hire) "How do use my energy to work on this land when I have paid him my money. Why don't I use the Energy to do another thing to benefit me"*
- Its not easy for people to work together but because of poverty people have no land *"my observation would be that if all people could accept and work together make trenches and plant trees at the top of the hill whose land sides originates their NRs would be convened production increased and poverty allocated hence unreality farmers livelihoods. said by Bonny*

Observation

I. think the idea of reporting those violating bye laws to the LCs is not working, the reason being that the LCs are nearing the period of election, so they want votes.

1. Need for a training of PTF and local leaders in managing conflicts is a necessity at this stage.

Positive impact

Indicators on NRM

More trees are being planted and cutting of young trees restricted.

Another positive change they have realized is that now community farmers demand more for the tools and seeds. At first were using AHI-tools but when Africare came to our village under ERI project, we talked to them and they added us more tools.

So every member at least has a tool, store and or can borrow them from the committee and treasurer(PTF).

It is the work of the PTF to monitor the use of these tools. If you borrow and you use it, after sometimes you report it again to your group and borrow it again.

Changes so far

Reduced soil erosion previously it used to be a very terrible problem and in this village we have over 300 trenches.

We used to plant in lines and whenever it would rain, rains could rode the soils and seed but this no longer happens because of trenches

Cooperation between members of the community. We normally hold meetings to discuss bye-laws and whoever does not follow is warned by the policy task force.

3.3.3. Case 3:

Mr. FRED BTARABEHO belongs to Ryakarimira Savings and Credit Group. They keep their money and after ,is lent out to carry out different activities. This group composes of 200 members and there are very many women around 92

-He is also a member of Bahingi - Barisa Kurinda eitaka group was put in place to conserve the soil and every member contributed 1,000=

Members meet every 30th day of the month and the 1,000= which was contributed is lent out to people and on the 30th day profits are brought back. They usually meet in Ryakarimira.

He is also a member of Uganda National Seed Potato Association(UNSPA); these are seed multipliers groups. They get seeds in research, give it to farmers who plant it and grow more potatoes.

He Worked with other farmers in formulating and Implementing byelaws and still is and will continue.

Any farmer who digs his/her field without first making a trench should be fined.

- No one should graze in one's land without permission, there should be a fine.
- Bush burning was also controlled. All these bye-laws were agreed upon by the village Council farmers, taken to the LC II and LC III who accepted them and gave us a go ahead.

When NAADS came, we were divided up in groups; we learnt modern farming like growing Irish potatoes. Because Fred performed very well ahead of other farmers, he was chosen as the Chairman and a trainer for example I went to Kihira to train, then to Rwanyena and all the fascilitation was done by CARE FIP but using skills form AHI

In Rwanyana, I was operating in Rwakatabura to Nyinasuzu, muluka of Mugandu for two seasons. From the CARE FIP fazed out and now he is dealing with NARO and AFRICARE training in Kancwekano. Farmers benefited a lot because they were well trained, they got seeds and even took the produce and farmers could take the money after the sale.

Besides, Fred has on individual basis participated in growing wheat with his family members and many people in the village have copied him. In 2004 in April Fred harvested 8 sacks of wheat.

Fred got a good seeds from researchers from Karengyere which he planted and yielded a lot. He had applied Fertilizer.

This wheat was basically for sale to pay school fees for his children and build houses. His wives benefited a lot because they are able to get whatever they want. He has 3 wives. Fred also planted beans and sold them and got money for school fees. These beans were planted on ½ an acre.

Making trenches and planting trees.

Fred hires labour to make trenches and several problems are encountered in making trenches for example;Trenches are costly

- As the Chairman he gets opposition from the old people who cannot afford making trenches.

- In planting trees, Fred has faced several problems like people plant trees in the middle of the field which disturb other farmers

He also said that he also faced problems In managing the nurseries which Included:-

Drought, Inadequate watering cans ,Means of carrying manure to the bed, Inadequate funding and Insufficient seed.

Fred said in this village Some Women cannot afford making trenches because they have small babies and naturally they are weak, so Fred hires only men to make his trenches.

On tree planting, Fred uses 25 women to plant trees because women are ever engaged in digging and ask little money compared to men. Are easily exploited

Benefits from trees.

Fred expects a lot of benefits form planting trees, like;

- Use in building
- Fire wood
- Use of climbing beans
- Restoration of soil fertility

People's participation in bye law implementation is high because they have realized the benefits like increased production.

A lot of sensitization on tree planting which includes fertility aimed at increased production. These species are calliandra for goats feed, grevallia for timber, alunus for timber and paculla. These seedlings are got from either shops or Africare and put in Nursery beds.

Fred visited Kyatobe area in Bubare Sub County, were he learnt how to plant trees. They had planted Calliandra, Alunus, Grevallia and Avocadoes and these trees were planted on trenches and this controlled soil erosion. The avocadoe trees were planted in the homestead.

He also learnt how to make trenches. In Kagyera trenches are measured in 2x 2.5 fts depth and length respectively.

He also visited Kancwekano research center and learnt how one can plant trees and crops at the same time and all do well.

Community assessment.

-Cooperation is high to those who are Interested in development and low to those not Interested .But at least In Kagyera its gaining,work together ,share,respect each other and when we began the group to contribute money many people welcomed which shows that cooperation is Improving.

-The spirit of helping is has not Improved as expected especially the poor because all people are poor and the only assistance is through sensitization. However we have begun a group to generate money for that.

-The extent breaking of norms and bye laws is decreasing because people fear punishments like fines e.g. 10,000= is charged in grazing in ones land and 5,000= failure to make a trench .In addition there is a lot sensitization moving on by the members of the policy taskforce.

-Women have all the confidence to talk in public and they are even elected to the committee out of the 9 people on a committee 4 are women. Women confidence has Improved.

-Women participation in community activity is has also Improved because they are the ones engaged in digging so they benefit more than men. Men's participation is minimal because they spend their time in bars and today men are forced to work in trench making.

-Men give respect and consideration to women which came from the NRM Government.

Reasons for improvement.

Because all people are development oriented it was seen that unity and working together bring development.

People's awareness of the bye laws

Fred said he is aware of the byelaws and heavily participated in formulation and Implementation .He also said all People are aware of the bye-laws because they are the ones who formulated them and they know that they exist. These bye-laws were formulated at village council level both men and women participated and women were active especially because they are the ones concerned with digging. In addition Women were many in enforcing the bye-laws because there are many widows. Many men have more than one wife. They are the ones who are more targeted.

Assessment of the bye laws.

-Performance of the bye-laws is very high because soil has gained its fertility and many other benefits have been seen like increased production and fire wood and In case AHI goes the bye-laws will continue because of the benefits we have seen. A group in the village has already been established where all members contribute 5,000=shillings which help in running activities incase AHI pulls out. The group is called **Kagyera Biika oguze Group**.

Women have benefited from the bye-laws because their soil has gained fertility and now production has increased. They are now able to buy themselves clothes and maintain them selves. No longer rely more on their husband. Secondly they are also on committees attend meetings, go to visit other farmers and learn more new things. For example whenever AHI organizes field exchange visits even women are selected in community meetings to go .*Although there is one time one woman went to visit in Bubale and they delayed and came late when she came the husband quarreled with the wife and stopped her form Participating. Which is selfishness? Suppose he was the one who delayed? Because I was also there we saw a lot of things and very Interesting.*

Problems faced in enforcing the bye laws.

- People with animals became resistant because they have nowhere to graze animals.
- Inadequate and lack of capital especially by the old and the weak.
- Lack of cooperation and creation of hatred and quarrels.
- Little support forms the Sub county leadership.

Problems faced by women in implementing the bye laws.

Women to some extent liked the bye-law implementation because it eased their work but being a weak sex this work of trench making should be solely for men.

Lack of enough funding to help people especially widows and old

Reason for continuity in bye laws implementation.

- There are some benefits realized so far.
- The community is willing.
- There is strong policy task force.
- Have began contributing money to buy tools and seed.
- Some other willing organizations to assist like Lake Bunyonyi Integrated Company.

What was to be happen?

Development oriented based on soil conservation by way of;

- Organizing community meetings
- Making byelaws, sensitize and Implement
 - Trench making and tree planting
 - Controlled bush burning
 - Controlled grazing
 - Terracing the land
 - Planting trees and grass on trenches.
 - Exchange visits.
 - Monitoring
 - Having workshops

What happened

The bye laws like trench making , controlled bush burning ,controlled grazing and tree planting were put in place so that failure to do the above, punishments are administered. In collaboration and assistance from AHI the above were able to be achieved.

Meetings were held every 30th day of the month at village level and others could be organized to review the progress with AHI staff and this included the whole village.

A committee was formed of 9 people who attended regular meetings and they were 4 women and 5 men in a committee. exchange visits and workshops were made. Monitoring of the activities was done and very many others. Generally all happened although not 100% but happened.

We also formed a committee at subcounty which Includes the subcounty chief ,LC3 and other gorvenment leaders like the NAADS Coordinator.

What went well? Trench making,-Controlled bush burning, encouraging Controlled grazing and Tree planting

- Having Exchange visits, We bought tools to use in making trenches. Meetings went well because we would meet 2 times in a month with AHI staff and 2 times alone as a community .Stationery was provided and lunch and even other visitors would come to see what we are doing. We even went to teach and learn form others.

Reason

There was mutual understanding in carrying out the above activities and these were the activities we decided to do ourselves. Nobody forced us.

People heavily participated in the above activities.

The committee was cooperative and worked with the local council chairman.

Support and follow up form AHI

What should be done next?

- Help us Plant and get more trees because they controls soil erosion, in future we get fire wood, sticks for climbing beans.
 - Sensitization is needed for people to know what to do.
 - Provide tools to farmers like wheelbarrow to transport manure
 - Getting a loan to help the poor dig there trenches or link us to who can give farmers loans.
- Involve the subcounty more. It keeps quiet. They only talk in meetings but don't Implement.

Evidence of “Empowerment” and gender dynamics.

- Women today join meetings and can ask questions. Women also actively participated in bye laws implementation e. g they are 4 women on the policy task force committee. They ask question and men respect them.
- There is ownernership and control of land by community members because there is no grazing in ones land without permission.

Sustainability of the program.

Many groups have been set up which generate money to run the community activities.

- There is also seed bank, This is a group where they grow beans, sell them and get money for running activities e g we have 7 sacks of beans if sold money will be there for the activities
- .
- Women also have a group where they contribute 200= and buy beans during the dry season distribute them for planting and generate money to run their activities in case AHI goes. All these can help to ensure that the activities continue. We can buy tree seeds, stationery for meetings etc.The problem is facilitating the process. The PTF has not had that capacity of that mobilization. *There is need for PTF training in resource mobilization and case handling.*

STORY

In the pat we used to dig and harvest poorly, then AHI taught us modern farming. This AHI was headed by a white man. We planted Irish which did not do well but they continued to train us. Running water was taking away soil and they trained us how to make trenches. I was trained in modern farming and was taken to Kapchorwa.

I am the chairman of the policy task force of this of Kagyera and was elected by the whole village because am hard working and trust worthy. After being elected as chairman sat together with committee members of 9 people and the whole village and we made bye laws but very few people came .We organized another meetings was called and the first meeting s proposed bye laws were read out to farmers who now came in big numbers. Some farmers could not readily accept the bye laws and could not follow them until punishments were put in place. Today bye laws are followed and in case of violation, a fine is charged according to bye law broken.

I have been funded by AHI to pay exchange visits to other areas e g I once went to Kapchorwa to see how they carry out these farming activities and conserve their

soils.. Thanks to AHI which gave us tools and seeds, like spade and tree seedlings, which has enabled us to improve on our food production. In case AHI goes, we people in Kagyera village we are able to continue doing our activities and we can even buy more our selves because we are contributing money lending it out with Interest. said by Fred.

Observations

Fred as the member of the policy task force is much knowledgeable and well informed about the bye laws but because he heads many groups and projects he tends to mix up issues.

3.4. CONCLUSION

A radical critique regards the term social capital as a catch-all phrase, potentially including all social variables in whatever context and having the capacity “to mean more or less anything”, and therefore not analytically useful (Ben Fine, 2002). Therefore, in the context of this “tracking” study, and given its time dimension, we focused on three aspects of livelihood: social capital (trust, cooperation, participation and networking), human capital (skills and knowledge) and natural capital (soil erosion control, tree planning and animal husbandry).

The first step was therefore to facilitate a **participatory analysis and selection** of important byelaws that needed tracking. This involved a community analysis of the strengths, weaknesses, opportunities, and threats of different byelaws to prioritize the most important for the communities. Three byelaws, the soil erosion, tree planning and controlled grazing byelaws were selected out of the six byelaws developed by the different communities. The second step was to identify indicators for tracking changes, and establish a community-based process for tracking and analyzing changes and outcomes of the different byelaws and policy taskforces. Community indicators were then compared with, and enriched by indicators developed by field staff and other stakeholders. The indicators concerned participation, performance and sustainability of byelaws and policy task forces.

A first step was to identify a set of community indicators for assessing the outcomes of social capital. It was important to establish a community-based participatory monitoring and evaluation system, a process that involve community members and local stakeholders to identify and agree on indicators and process of tracking change, and for reflective feedback. Focus group discussion sessions were conducted in the four pilot communities to introduce the “tracking” study, to identify indicators, agree on a process for collecting information and feedback, and assign responsibilities to some community members to facilitate the process. Table 2 below shows the types of indicators identified by the communities as useful for tracking change in the three key areas of participation, performance and sustainability.

Table 2: Community-based indicators for tracking social capital outcomes

Performance areas	Outcomes and Indicators
Participation	<ul style="list-style-type: none"> • Continuous attendance to meetings and community activities • Number of farmers participating in various policy meetings, task forces and community NRM activities • Number of women participating in meetings • Number of meetings conducted by the task forces • More farmers involved in implementing byelaws • Extent of participation in decision-making • Change in motivation and expectations from participation • Extent of women’s participation in making decisions

Performance	<ul style="list-style-type: none"> • Number of meetings of task forces and policy meetings and community meetings at community levels • Level of compliance of the byelaws • Perception of effectiveness of byelaws and task forces by community members • Skills and knowledge level • Exchange visits hosted or conducted • Extent of collective action in NRM • Trees and grasses planted along the trenches • Increased number of trenches • Reduced soil erosion • Reduced conflicts • Budget allocation for activities • Neighbouring communities seeking information and visiting • Extent of demand of NRM technologies • Level of satisfaction and farmers' expectations • Number of nursery beds • Linking with other organisations
Sustainability	<ul style="list-style-type: none"> • New action plans developed • Ability to take independent actions and decisions • Ability to analyze and explain issues and problem • Evidence of positive change in NRM • Potential adoption of NRM technologies • Community willingness to plant trees and get seeds on their own • New activities initiated • Increased community savings to invest in NRM activities • Number of meetings of task forces and policy meetings and community meetings at community levels • Knowledge and leadership skills of task force members

These indicators for measuring social capital can also be considered as social outcomes of social capital, and therefore were used in tracking social capital outcomes. Based on these indicators, an interview checklist was developed and used with all the 16 households that participated in the **case studies** during the intervention phase (Martin et al., 2004). These case studies were designed to look comparatively at households in contrasting circumstances to explore the reasons for differences in livelihood patterns between richer and poorer households and how these related to natural resource management practices. The case studies were intended to increase understanding of how social capital is activated in the pursuit of livelihoods, particularly how access to (or exclusion from) social capital can assist or impede access to other forms of capital and hence influence livelihood choices and outcomes. The case studies covered households across a range of wealth and status, including the poorest. It was also hoped that these case studies could illuminate any negative dimensions of social capital, such as excessive burden of obligations to family, kin and friends within informal social capital networks or perceptions of corruption or exclusion.

The World Bank Social capital project has led to the development of an “Integrated Questionnaire for the Measurement of Social Capital. Six dimensions are considered: groups and networks; trust and solidarity; collective action and cooperation; information and communication; social cohesion and inclusion; empowerment and political action (Grootaert et al., 2004). Narayan and Cassidy (2001), identified criteria or indicators for measuring social capital. These include group characteristics such as financial contributions, frequency of participation in activities and extent of participation in decision-making, heterogeneity of membership; prevalence of norms of trust, helpfulness, fairness; closeness of everyday social interaction. Criteria also include community characteristics, - neighbourly connections, the extent of voluntary work on community activities and sanctions for non participation; the extent of trust among different groups within family, neighbourhood and leadership roles both inside and outside village; a sense of pride and identity; the extent of communication.

The sustainable livelihood framework (Carney, 1998; DFID) also provides a useful framework for assessing the outcomes of social capital. Social capital is one of the five capital assets in the pentagon of the livelihoods framework. (Carney, 1998). In this formulation social capital is considered to be the social resources upon which people draw in pursuit of their livelihood objectives. These include networks and relations of connectedness, both vertical and horizontal, that increase people’s trust and ability to work together and expand their access to wider institutions such as political or civic bodies. It includes membership of more formalised groups and relationships of trust, reciprocity and exchange that facilitate co-operation, reduce transaction costs and may provide the basis for informal safety nets amongst the poor (DFID Sustainable Livelihoods Guidance Sheets, section 2.3.2). As one of the assets that people use to improve their livelihoods and achieve better livelihood outcomes, we can hypothesize that strengthening social capital will translate into improvements in some of the five capital assets (social, human, natural, financial and physical). Mature social capital can also be instrumental in influencing policies, structures and institutions and in helping poor people and communities to cope with shocks and vulnerability.