COMMUNITIES TAKING THE LEAD

The relevance of social innovation amongst land-based communities in Uganda to improve agriculture and enhance livelihoods

(2x Pictures)

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This research project presents a fieldwork study (executed April – June 2011) in two land-based communities in rural Uganda, under the auspices of the SCI-SLM project:

**Stimulating Community Initiatives in Sustainable Land Management**

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**CIS, VU Amsterdam         MAAIF, The Republic of Uganda**
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“It is not the strongest of the species that survives, nor the most intelligent that survives. It is the one that is the most adaptable to change.”

Charles Darwin (1809-1882)

The people that cooperated in the fieldwork are not merely names in this thesis: they have a face. Some of the most helpful, inspiring, interesting, remarkable, welcoming or friendliest persons I met during the fieldwork period in (rural) Uganda:

(PICTURES>>>> not attached in this version)

A special thank you to the following people in Uganda:

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Balogeya Patrick Tigawalana John Kintu John

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Mbyemire Richard Matsiko John

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SUMMARY

In sub-Saharan Africa (SSA), the natural resource of land plays a crucial role in the everyday lives of its people: SSA is home to more than 750 million people of which two-thirds depend on agriculture to sustain a livelihood. The reduction in the capacity of the land to function – land degradation briefly defined – therefore poses great challenges to the inhabitants (and decision-makers) in this region. In the Republic of Uganda, agriculture is one of the main economic sectors. Moreover, 85% of the population lives in rural areas of which the majority depends on the key livelihood resource of land. The problem of land degradation causes food insecurity, poverty and hampers all kinds of (social, economic) development. Land degradation is also driven by underdevelopment, embedded in a broader social, economic and also political context. Issues of inequality, lack of education, sickness, access to information, lack of ownership, inappropriate policy-making, and so forth are all influencing and part of the context in which land degradation exists.

The ‘farmer innovation approach’ is increasingly acknowledged as a great value for agricultural research and development (ARD), presenting a bottom-up approach to issues of land degradation: by consulting different stakeholders – from farmer to researcher – and creating partnerships, context-specific and efficient solutions to land degradation are developed. This approach came up within the discourse of sustainable land management (SLM), which promotes an integrated approach to problems of land degradation. SLM emphasises that land management should have complementary foci, such as I.) being technologically sound and effective, II.) caring for environmental functions and landscapes, III.) being economically efficient and IV.) making people part of the solution, by using participatory methods. This last point plays an important role in this thesis.

The focus of this research project is on identifying local, innovative solutions to the problem(s) of land degradation in the Republic of Uganda. Under the auspices of project ‘Stimulating Community Initiatives in Sustainable Land Management’ (SCI-SLM), this research aims to specifically address social innovations, as identified in land-based communities, which touch upon issues of land management. SCI-SLM is a partnership project (currently up and running in four African countries: Ghana, Morocco, South Africa and Uganda) which acknowledges and harnesses farmers’ and land-based communities’ capacities to come up with innovative solutions internally (without outside help), and looks to disseminate these initiatives to other
communities, since it is convinced of the value of community-based SLM for further agricultural (and other sorts of) development.

The farmer innovation approach mainly paid attention to technological innovations so far: under SCI-SLM and its forerunner ‘Promoting Farmer Innovation’ (PFI), numerous technological farmer (or community) innovations were identified, and have been disseminated successfully (e.g. through cross-visits and farmer-to-farmer learning) amongst different farmers and communities within various African countries. The farmer innovation methodology has gained ground in this process, and (stimulating locally initiated) SLM is increasingly being mainstreamed in agricultural development agendas. Social innovation has also been identified as a type of farmer or community innovation; evidence of successful social innovations amongst farmers or land-based communities have been documented in the past and its relevance has been discussed. Social innovation was defined within the SCI-SLM framework as: new forms of institutional arrangements to improve agriculture and the environment. However, the exact relevance and characteristics of this type of innovation amongst farmers and land-based communities has not received much attention in the SCI-SLM project. In addition, for technological innovations a criteria test (assessing a technical innovation on its technical effectiveness, economic validity, environmental friendliness and social acceptability), was designed to assess the true merit of a farmer innovation and its potential for dissemination to other farmers or communities. For the social type of innovation, the (farmer innovation) methodological steps have been lagging behind within the SCI-SLM project, and the current criteria test for assessing social innovation is not yet comprehensively developed.

Since there was a demand from SCI-SLM to have a closer look at the potential and relevance of social innovation for improving sustainable land management, this research focuses on identifying and analysing the process of social innovation. By applying a participatory and qualitative research design, two pre-selected communities in Uganda under the ‘SCI-SLM radar’ (preselected by the national SCI-SLM team of Uganda) were visited to find evidence of social innovation and to analyse the true potential of this farmer innovation type for improving agriculture and people’s livelihoods.

In the research project, two research objectives were developed:
1) The primary aim of the research is to define social innovation as a rather new concept as part of farmer innovation methodology in the field of sustainable land management under SCI-SLM auspices; finding evidence for its development in the field and analysing its impacts in two rural land-based communities in Uganda.
II.) The secondary research aim concerns the not yet fully developed SCI-SLM methodology relating to social innovation; how to analyse social innovation in the field is reassessed and refined where necessary and possible. The SCI-SLM criteria for a ‘good’ social innovation must therefore be evaluated on their appropriateness, and adjusted or specified where needed.

The following central research question was developed to address both research objectives:

*What forms of social innovation can be found under ‘Stimulating Community Initiatives in Sustainable Land Management’ (SCI-SLM) Uganda, what are the on-the-ground impacts, and how relevant is its recognition for improved sustainable land management (SLM)?*

Four sub-questions help address the main research question:

1. How can social innovation be conceptualised and consequently be identified in rural Uganda?
2. What are on-the-ground impacts of social innovation within the communities as observed in Uganda?
3. What can we learn from the evidence gathered in rural Uganda regarding the relevance of including social innovation in sustainable land management?
4. How – if at all – should the current SCI-SLM methodology to analyse social innovation be adjusted, refined or completed – with respect to the in-field research and the S-R-I (Sustainable, Replicable and Inclusive) test; are the current SCI-SLM requirements for a ‘good’ social innovation appropriate and sufficient?

The term *social innovation* was conceptualised after a comprehensive literature research, serving as a working definition for identifying social innovation in the field:

*The process of creating or renewing systems of social order and cooperation which govern the behaviour of a set of individuals within a given human community with the aim to improve agriculture and the environment and strengthen livelihoods.*

Additionally, the SCI-SLM mandate requires a social innovation (as part of SLM) to be:

i.) new in local terms;
ii.) developed by the local community/group;
iii.) with no /little help (or money) from outside;
iv.) and preferably, having potential for spread.
In both of the visited communities in Uganda, Banyakabungo grazing land management society in Ntungamo district, and farmer network BANDERA 2000 in Kamuli district, evidence of social innovation (as defined above) was identified during the fieldwork.

“Banyakabungo” is a members-only society which was founded by a small group of local people. The group communally manages and owns a 186 ha. piece of land (collective ownership of the land title) on which their cattle grazes; each member brings in a cow. The members together take care of the cattle, land (grass, garden, trees) and water resources, and live of their produce (subsistence and market) which is shared according to the share the members own. The group secures its 107 members of land ownership and applies a democratic system of governance to make decisions about the land and the group’s assets. This social innovation thus not only improves land husbandry, it also secures the Banyakabungo people of a more sustainable income.

“BANDERA 2000” was founded by a small group of farmers with the motivation to fight poverty and improve the local people’s circumstances by helping them earning an income: the idea was that more can be achieved when the people work together. This ‘cultivators network’ links farmers to farmers by sharing knowledge on farming and offering trainings in the Busoga region (central Uganda) and looks for opportunities to develop enterprises in rural agriculture. The group pays special attention to the situation of orphans, widows and other vulnerable people in the region as well, and has become a well-known association in the area, both for its agricultural and other development aims. BANDERA 2000 celebrated successes and has been disappointed in the past: some enterprises failed, others were successful for some time and brought in money for its members. At the moment, the group is thinking of new initiatives to own communal land (again) and produce fruits for the local market. The number of members went from 5 to 1000 in the past; it currently has 350 paying members, of which more than half is female. The aim of the group is still to support one another and to fight poverty and sickness collectively by improving agricultural practices and the environment.

Concluding from observations and interviews in the two land-based communities, it became clear that the social initiatives they create do not exclusively aim to improve productivity and taking better care of the land (although improving productivity and creating an income is an important, or even most important driver for the social innovation). By working together and involving multiple people to contribute and benefit, the communities both address those social issues that hamper agricultural development as well as social and economic development in their society. In Banyakabungo this is achieved by securing land, thereby tackling the problem of lack
of ownership, and avoid the “tragedy of the commons”. In BANDERA, women’s development and care for the vulnerable members of society is one of the main objectives, aiming at issues of inequality and empowerment. These forms of social innovation touch upon drivers of land degradation that are often forgotten in agriculture and are important to include to achieve actual sustainable land management. Examples of Banyakabungo and BANDERA 2000 prove that there is more to gain from involving these kind of farmer innovations and that they are relevant for improving agriculture and livelihoods, at the same time.

Finally, several recommendations are proposed to the SCI-SLM project, concerning analysing social innovation in-field, and adjusting the currently used SRI criteria test (Sustainability, Replicability, Inclusiveness) to better integrate the concept of social innovation in the farmer innovation methodological framework.

1. To develop the social innovation concept as part of SLM

   • First, it is crucial to develop a clear working definition of social innovation and specifying its crucial role for improving sustainable land management. If a working definition is not agreed on from the start of the programme, it will lead to confusion and discussion; this must be avoided.

   • In addition to the working definition, certain SCI-SLM standards must be met for a social (farmer) innovation to be suitable for this project: listing these alongside the working definition helps to clear up from the beginning whether the social innovation is appropriate for SCI-SLM (standards such as: local development of the initiative and development with little or no help from outside).

   • Subsequently, it is proposed here to develop a new criteria-test to judge whether a social innovation is a ‘good’ social innovation; a subdivision of different aspects important to sustainable land management (i.e. sustainability, economic, social, and a separate SCI-SLM criterion) are included in the SER-FIELD test:
     - (endurance) sustainability
     - (economic) efficiency
     - (SCI-SLM objective) replicability
     - (social) future vision; inclusiveness; empowerment; leadership; democracy

2. In-field research methods

   • A close collaboration between researchers with different backgrounds is encouraged when analysing social innovation in the field: learning from the researcher’s own experiences:
A local extension worker or local university student could cooperate with a (foreign) researcher, each with their own backgrounds but, obviously, with an interest in agriculture and development, to create hybrid knowledge and have new insights;

Preferably, the local student(s) / extension worker(s) speaks the local language of the community so better communication is achieved;

When possible, a local agricultural officer should be involved in the project so he or she is aware of the research and can continue following up on further developments in the innovative community after the researcher(s) leave the region;

After field research, SCI-SLM forms should be used to store the collected data and share the preliminary outcomes with the national SCI-SLM team who should continue stimulating innovativeness and arranging cross-visits with other identified communities under SCI-SLM.

3. Stimulating more community initiatives in Sustainable Land Management

More land-based communities, also in other countries where SCI-SLM is active, should be researched in detail to observe their efforts to collectively improve land management and tackling socio-economic problems at the same time;

In order to upscale the farmer innovation methodology focussing on social innovation, more research on social innovation and its impact on improving SLM is needed, so better insights into social innovation and its relevance can be created and (possibly) additional characteristics of a ‘good’ social innovation can be distilled.
### Abbreviations and Acronyms

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<th>Full Form</th>
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<tbody>
<tr>
<td>AFF</td>
<td>Afro Fresh Foods</td>
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<tr>
<td>AIS</td>
<td>Agricultural Innovations System</td>
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<td>AKIS</td>
<td>Agricultural Knowledge Information Systems</td>
</tr>
<tr>
<td>ARD</td>
<td>Agricultural Research and Development</td>
</tr>
<tr>
<td>BANDERA</td>
<td>Balimi Network for Developing Enterprises in Rural Agriculture</td>
</tr>
<tr>
<td>BK</td>
<td>Banyakabungo Twimukye Co-operative Society</td>
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<tr>
<td>CBD</td>
<td>Convention on Biological Diversity</td>
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<tr>
<td>CIS-VU</td>
<td>Centre for International Cooperation - VU University</td>
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<tr>
<td>CO₂</td>
<td>Carbon dioxide</td>
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<tr>
<td>ERM</td>
<td>Environment and Resource Management</td>
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<td>ERP</td>
<td>Economic Recovery Programme</td>
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<td>FAO</td>
<td>Food and Agriculture Organization</td>
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<td>FFL</td>
<td>Farmer-first-and-last</td>
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<td>GDP</td>
<td>Gross domestic product</td>
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<td>GEF</td>
<td>Global Environment Facility</td>
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<td>GHGs</td>
<td>Greenhouse gases</td>
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<td>GoU</td>
<td>Government of Uganda</td>
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<td>HDI</td>
<td>Human Development Index</td>
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<tr>
<td>IFAD</td>
<td>International Fund for Agricultural Development</td>
</tr>
<tr>
<td>IFPRI</td>
<td>International Food Policy Research Institute</td>
</tr>
<tr>
<td>IHDI</td>
<td>Inequality-adjusted Human Development Index</td>
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<tr>
<td>ISRIC</td>
<td>International Soil Reference and Information Centre</td>
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<tr>
<td>IUCN</td>
<td>International Union for Conservation of Nature</td>
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<tr>
<td>LC</td>
<td>Local council</td>
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<tr>
<td>LD</td>
<td>Land degradation</td>
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<td>LDCs</td>
<td>Least Developed Countries</td>
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<td>LG</td>
<td>Local government</td>
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<tr>
<td>MAAIF</td>
<td>Ministry of Agriculture, Animal Industries and Fisheries (Uganda)</td>
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<tr>
<td>MDGs</td>
<td>Millennium Development Goals</td>
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<tr>
<td>NAADS</td>
<td>National Agricultural Advisory Services (Uganda)</td>
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<td>NARO</td>
<td>National Agricultural Research Organisation (Uganda)</td>
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<tr>
<td>NARS</td>
<td>National Agricultural Research System</td>
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<tr>
<td>NDP</td>
<td>National Development Plan (of Uganda)</td>
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<td>Acronym</td>
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<tr>
<td>NEMA</td>
<td>National Environment Management Authority</td>
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<td>NGO</td>
<td>Non-governmental organisation</td>
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<td>PEAP</td>
<td>Poverty Eradication Action Plan</td>
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<tr>
<td>PLA</td>
<td>Participatory Learning and Action</td>
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<td>PFI</td>
<td>Promoting Farmer Innovation</td>
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<td>PMA</td>
<td>Plan for Modernization of Agriculture</td>
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<tr>
<td>PROLINNOVA</td>
<td>Promoting local innovation in ecologically oriented agriculture and</td>
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<td></td>
<td>natural resource management</td>
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<td>PWDs</td>
<td>People with disabilities</td>
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<td>R&amp;D</td>
<td>Research and development</td>
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<td>SCI-SLM</td>
<td>Stimulating Community Initiatives in Sustainable Land Management</td>
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<td>SIF</td>
<td>Strategic Investment Framework</td>
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<td>SLM</td>
<td>Sustainable Land Management</td>
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<td>SSA</td>
<td>Sub-Saharan Africa</td>
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<td>TOT</td>
<td>Transfer of technology</td>
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<td>UBOS</td>
<td>Uganda Bureau of Statistics</td>
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<tr>
<td>UG</td>
<td>Uganda</td>
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<tr>
<td>UNCCD</td>
<td>United Nations Convention to Combat Desertification</td>
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<td>UNCED</td>
<td>United Nations Conference on Environment and Development</td>
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<tr>
<td>UNCTAD</td>
<td>United Nations Conference on Trade and Development</td>
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<td>UNDESA</td>
<td>United Nations Department of Economic and Social Affairs</td>
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<td>UNDP</td>
<td>United Nations Development Programme</td>
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<td>UNDSD</td>
<td>United Nations Division for Sustainable Development</td>
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<td>UNEP</td>
<td>United Nations Environment Programme</td>
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<td>UNFCCC</td>
<td>United Nations Framework Convention on Climate Change</td>
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<td>UNHCR</td>
<td>United Nations High Commissioner for Refugees</td>
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<td>UNOHRLLLs</td>
<td>UN Office of the High Representative for the Least Developed Countries,</td>
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<td>Landlocked Developing Countries and the Small Island Developing States</td>
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<td>UNWCED</td>
<td>United Nations World Commission on Environment and Development</td>
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<tr>
<td>VU</td>
<td>VU University (Dutch: Vrije Universiteit)</td>
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<td>WOCAT</td>
<td>World Overview of Conservation Approaches and Technologies</td>
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GLOSSARY

This glossary defines the terminology of relevance as they are supposed to be understood in the context of this report.

Cooperation
Common effort of a group towards a shared goal, gaining mutual benefits.

Community
A group of people who are involved in collective action (having a religion, race, profession, or other particular characteristic in common) in a specific geographical location.

Empowerment
The process of gaining access and developing one’s capacities with a view to participating actively in shaping one’s own life and that of one’s community in economic, social and political terms.

Farmer innovation
The development of systems that are new – in local terms – by farmers using their own creativity.

Gender
The relations between men and women, both perceptual and material. Gender is not determined biologically, as a result of sexual characteristics of either women or men, but is constructed socially.

Institution
A significant practice, establishment or organization in a society or culture.

Land
The terrestrial biologically productive system that comprises soil, vegetation, other biota and the ecological and hydrological processes that operate within the system.

Land degradation
Land degradation is a reduction in the capacity of the land to perform ecosystem functions and services that support society and development.

Livelihood
The capabilities, assets (stores, resources, claims and access) and activities required for a means of living.

Participatory research
A research method in which the researcher works with the group under investigation.

Qualitative research
A form of systematic empirical inquiry into meaning; studying things in their natural settings, attempting to make sense of, or to interpret, phenomena in terms of the meanings people bring to them

Social development
Describes actions that are taken to build positive outcomes and prevent negative social outcomes that can adversely affect a community (social development issues have a very broad range. Included are for instance: poverty, employment, social integration, disability, youth, equality, gender, family, civil society, etc.)
Social innovation (within SLM)  
The process of creating or renewing systems of social order and cooperation which govern the behaviour of a set of individuals within a given human community with the aim to improve agriculture and the environment and strengthen livelihoods.

Social order  
Historically developed ideas, beliefs, and patterns of conduct which evolved in a culture, guiding human conduct and the management of group activities.

Sustainable development  
Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

Sustainable land management  
The use of land resources, including soil, water, animals and plants for the production of goods to meet changing human needs, while simultaneously ensuring the long-term productive potential of these resources and ensuring their environmental functions.

Sustainable livelihood  
A livelihood is sustainable when it can cope with and recover from stresses and shocks, maintain or enhance its capabilities and assets, while not undermining the natural resource base.

Tenure  
The right to hold property (ownership of land, in this context).
CHAPTER 1. INTRODUCTION

In this chapter an introduction to the topic of the research project is given. This is followed by the problem description, the research objectives and the research question. Consequently, the relevance of the research project and its subject will be briefly discussed. In the final paragraph, the outline of the thesis is presented.

1.1 Introduction to the research project

"The environment does not exist as a sphere separate from human actions, ambitions, and needs, and therefore it should not be considered in isolation from human concerns. (...) The environment is where we all live; and development is what we all do in attempting to improve our lot within that abode. The two are inseparable."

Gro Harlem Brundtland, 1987 in “Our Common Future” (UNWCED)

The importance of a people-centred approach to environmental management gained greater recognition after the 1992 United Nations Conference on Environment and Development (UNCED) received criticism by developing countries. According to them, not enough attention was paid to major environmental problems which directly endanger millions of livelihoods globally (SCI-SLM, 2009). Nowadays, the ‘sustainable development’ discourse – as defined in the Brundtland report or “Our Common Future” in 1987 (UNWCED) – reigns supreme (Velasquez et al., 2005), under which the ‘sustainable livelihoods approach’ is gaining in popularity. The sustainable livelihoods theme is “… concerned with local aspects of environmental sustainability and community well-being, in other words with community-based, equitable and sustainable management of natural resources, the generation of local wealth and the empowerment of local communities for their own social and cultural well-being” (IUCN, 2011). Global environmental problems are now increasingly addressed on a local scale, fitting to local circumstances. In developing countries, complex relationships between poverty and the environment need to be addressed in order to see actual sustainable development happen: “integrating economic growth, social development and environmental protection as interdependent and mutually supportive elements of long-term development” (UNDESA, 2002: 1).

In the context of sustainable and community development, this thesis presents a research project about the interdependent link between environmental management and on-the-ground socio-economic progress within land-based (or farmer) communities in Uganda. More precisely, the focus is on the capability of rural communities to internally and cooperatively solve encountered problems related to land degradation: a severe environmental problem that
deprives many people from having a sustainable and secure livelihood because it – literally – erodes their resource base. A livelihood is sustainable when it can “... cope with and recover from stress and shocks, maintain or enhance its capabilities and assets, and provide sustainable livelihood opportunities for the next generation; and which contributes net benefits to other livelihoods at the local and global levels and in the short and long term” (Chambers and Conway, 1991: 6).

‘Sustainable land management’ (SLM) rules the current discourse when it comes to fighting land degradation, prescribing integrated methods to agricultural development and emphasizing the complexity, and context and resource specificity of land degradation issues (WOCAT, 2007). When conceptualised, SLM not only prescribes a technical approach to solving problems of land degradation. It also includes a focus on ecosystems, the affordability and profitability of new land management systems (economic perspective), and taking a people-centred (social) approach. Participation is a keyword when the most important stakeholders (the ones having to live with the immediate consequences of land degradation) are to be part of the solution to problems of land degradation. Indeed, farmers and their needs are an important starting point with respect to land degradation issues and creating suitable solutions (Chambers and Ghildyal, 1985) and researchers are increasingly realising that farmers too carry out their own forms of research. Local knowledge and innovations by and for farmers have been increasingly acknowledged within agricultural and research development, and have proven to be a valuable resource (Reij and Waters-Bayer, 2001; Velasquez et al., 2005; Critchley, 2007).

One involved project with the aim to fight land degradation by working with land-based communities in Africa is SCI-SLM: ‘Stimulating Community Initiatives in Sustainable Land Management’ (SCI-SLM, 2011); SCI-SLM will be explained in detail in section 2.4.3. Under the auspices of this project, which acknowledges and harnesses local farmers’ knowledge for its added value to agricultural and socio-economic development, the research project has been executed. Fieldwork was conducted in two rural communities in Uganda to collect data on-farm, right where the problems and possibly also (sustainable) solutions to land degradation are found. The focus of this thesis is on processes of social innovation as identified within land-based communities which have the potential to contribute to improving land management systems; a subject that so far has been paid relatively little attention to in the more technically-focused sector of agriculture, and project of SCI-SLM in particular.
1.2 Problem description

In sub-Saharan Africa (SSA) the natural resource of land plays a crucial role in the everyday lives of its people. Most economies in this region are agriculturally-based and two-thirds of all Africans depend on agriculture to sustain a livelihood (Nkonya et al., 2008). At the same time, land degradation poses great challenges to the inhabitants and governments of the sub-Saharan African countries. SSA is home to more than 750 million people, and forecasts indicate that this number will grow past one billion before the year 2020 (TerrAfrica, 2007). Taking into account that SSA is among the poorest regions in the world – with approximately one-third of the population living on less than one dollar per day – and their huge dependency on agriculture to feed and maintain themselves (Nkonya et al., 2008), one can imagine the intense severity of this problem for this region. Uganda is one of the countries in SSA where land is pivotal, since much of the country’s economic and social development issues relate to production from land (NDP, 2010).

Development issues in Uganda revolve around two main challenges according to the National Environmental Management Authority (NEMA), namely: “access to key livelihood resources for the poor, and the mutually undermining interaction between poor people and an increasingly degrading environment” (NEMA, 2008: 25). The focus is especially on severe environmental problems of declining soil fertility, deforestation, degradation of rangelands and decreasing fish stocks in Uganda (ibid). Over 85% of Uganda’s population lives in rural areas, of which the majority depends directly on the natural environment for their livelihoods (NDP, 2010). Since 40% of the rural population in Uganda lives in abject poverty (IFAD, 2011), the environmental problem of land degradation determines for a great deal their chances of survival, or at least the extent to which there is money, food or work available (NDP, 2010).

The consequences and also causes of land degradation encompass more than ‘a lack of income’. Being poor also has to do with levels of participation in groups or obtaining a social status, or whether you ‘have a voice’ in society; if your needs and insights are being heard and included in (local to national) decision-making. Vulnerability and lack of access to health, adequate food and drinking water, education, employment and information are also measures of poverty. Amartya Sen introduced the ‘capability-approach’ in this respect, which “sees human life as a set of “doings and beings” – we may call them “functionings” – and it relates the evaluation of the quality of life to the assessment of the capability to function” (Sen, 1989: 43). To be poor is to have no freedom or choice in life and to be deprived from certain capabilites: “Capability reflects a person’s freedom to choose between different ways of living” (ibid: 44), including social and political deprivation. Sen uses Marx’s claim here, to underline that what we need for human
development is “replacing the domination of circumstances and chance over individuals by the domination of individuals over chance and circumstances” (ibid: 44).

Poverty eradication is the main development objective of the Ugandan government (NDP, 2010). It therefore needs to seriously address the problem of land degradation since it is a major consequence as well as a cause for poverty in the country. Declining soil fertility and land productivity aggravate food insecurity and reduce household incomes, and underinvestment in sustainable farming techniques and lack of access to ownership of land is resulting in further land degradation, culminating in a vicious poverty cycle (Nayenga, 2008; Nkonya et al., 2008). A good development is that these interdependent problems are acknowledged in Uganda, and land degradation issues are slowly but surely being mainstreamed into national and local government development plans (NDP, 2010).

Land degradation is also a institutional problem, since bad policy-making in the past has worsened land use in many regions, creating for instance “the tragedy of the commons” by placing restrictions on private land ownership and central planning (Morris, 1995). A big challenge in fighting the consequences of land degradation is to develop appropriate policies, partnerships and programmes in order to undertake action where it is needed and creating solutions that are successful on the long-term. Especially in remote rural areas where small farms are located that are unstable and highly diverse, a different approach from the prevailing top-down, transfer-of-technology is inevitable. During and after the ‘Green Revolution’ in the 1960s, starting in Asia and Latin America as a reaction to problems of hunger and malnutrition, the application of heavy machinery and scientific approaches in the field took over. “The breeding of improved varieties, combined with the expanded use of fertilizers, other chemical inputs, and irrigation, led to dramatic yield increases” (IFPRI, 2002: 2); the enormous growth in agriculture was intended to disperse to other regions as well, using the scientific approach brought forward by the Green Revolution (ibid). Small-scale farmers were also expected to keep up with this trend, without considering if the traditional farming practices that the local farmers used all along were more appropriate in the first place (Jiggins, 1989). It took quite some time until it was recognized that local success needs local knowledge, and that a contextual and situational approach is the way to go.

Even more so in poorer areas where many rural small-holders are located, considering their limited access to resources and local culture brought a shift in thinking about agricultural development in less developed regions, such as sub-Saharan Africa (Chambers and Ghildyal, 1985). Land-user driven and participatory, multidimensional approaches are now overtaking the
old-fashioned and one-sided approaches to improving land husbandry (Critchley, 2010). The participatory approach asks researchers, extension (government) workers and farmers to work together, creating new partnerships, towards developing new solutions (SCI-SLM, 2009). Several global and national projects and SLM programmes have acknowledged the relevance of farmer knowledge and local innovation, wherein mainly technical and tangible innovations were focused on. But another type of innovation has been overlooked until now, focusing on the important social challenges related to land management (pers. comm.: Critchley, February 2011; Muwaya, April 2011).

In addition to considering technical innovations, SCI-SLM implies that it needs to be recognised that farmers go beyond changing the tools and technical methods they work with to improve production from the land. Farmers and farmer communities are (re-)organising themselves and change their patterns of social order to tackle their encountered problems, and increasingly work in cooperation with other farmers. The changing social processes in farmer communities affect not only land management practices but also have broader consequences for community development. It is therefore essential to include these kinds of innovations in agricultural research and development.

In the following section, the goal and central question of the research project will be presented, wherein social innovation within sustainable land management is the focal point. Looking at this small subcomponent of farmer innovation, a rather unnoticed subject is finally touched upon comprehensively, presenting important insights into working towards sustainable, integrated development of farmer communities that are struggling with the problem of land degradation.

1.3 Research goal, objectives and central question

Research goal
The overall research goal is to add value to farmer initiatives in rural Uganda, by acknowledging their efforts to improve their land management and livelihoods, and by involving them in the research so that they will go forward with their efforts, as part of the SCI-SLM project. The results of the fieldwork will hopefully contribute to further development of the SCI-SLM methodology concerning social innovation in sustainable land management. The gathered primary data will be particularly valuable to the Ugandan SCI-SLM team and Ministry of Agriculture, Animal Industries and Fisheries (MAAIF).
Objectives
Alongside the educational aim of the research project (see ERM Manual RP 2010-2011) there are two research objectives:
I.) The primary aim of the research is to define social innovation as a rather new concept as part of farmer innovation methodology in the field of sustainable land management under SCI-SLM auspices; finding evidence for its development in the field and analysing its impacts in two rural land-based communities in Uganda.
II.) The secondary research aim concerns the not yet fully developed SCI-SLM methodology relating to social innovation; how to analyse social innovation in the field is reassessed and refined where necessary and possible. The SCI-SLM criteria for a ‘good’ social innovation must therefore be evaluated on their appropriateness, and adjusted or specified where needed.

Research question
The following central research question applies to the research project:

What forms of social innovation can be found under ‘Stimulating Community Initiatives in Sustainable Land Management’ (SCI-SLM) Uganda, what are the on-the-ground impacts, and how relevant is its recognition for improved sustainable land management (SLM)?

Four sub-questions will be answered to help address the main research question:
1. How can social innovation be conceptualised and consequently be identified in rural Uganda?
2. What are on-the-ground impacts of social innovation within the communities as observed in Uganda?
3. What can we learn from the evidence gathered in rural Uganda regarding the relevance of including social innovation in sustainable land management?
4. How – if at all – should the current SCI-SLM methodology to analyse social innovation be adjusted, refined or completed – with respect to the in-field research and the S-R-I (Sustainable, Replicable and Inclusive) test; are the current SCI-SLM requirements for a ‘good’ social innovation appropriate and sufficient?

1.4 Relevance of the research project
In this research project, agricultural development at the community level plays the leading part. Harnessing community knowledge and local innovativeness is the focal point, referring to the ability of land-based communities to come up with solutions to local problems internally: within the context of this thesis that means fighting the environmental problem of land degradation. Identifying, analysing and stimulating these ‘home-made solutions’ to local environmental
challenges is interesting in the pursuit of attaining different development goals, such as overcoming (rural) poverty, empowering vulnerable members in society, stabilizing livelihoods, improving the environment and management hereof, and mitigating climate change.

The research topic is for a large part demand-driven by the SCI-SLM project. Social innovation as part of sustainable land management has received relatively little attention in formal agricultural research, although the relevance of this topic has been mentioned before and is part of the SCI-SLM objectives. Exploring this in-depth in the field could make a significant contribution for SCI-SLM’s future efforts to look at social innovation amongst communities, filling up the gap of understanding what social innovation actually means for agricultural and other (interconnected) forms of development. In addition, through this research project, which was conducted in Uganda, partnerships have been strengthened once again between CIS-VU (Centre for International Cooperation) and MAAIF Uganda (Ministry of Agriculture, Animal Industries and Fisheries), working together in the project SCI-SLM.

1.5 Outline of the report

This thesis consists of seven chapters, the introduction being the first. In the next chapter, the research context is presented. In addition to providing background information on Uganda, the environmental problem of land degradation will be discussed, as well as current approaches to the problem and how addressing this challenge has been included in Uganda’s national development objectives. In chapter three the theoretical framework is explained, giving a background to the main concept of the research project – social innovation – as well as an overview of the historical development of agricultural research and development (ARD) methods. The fourth chapter presents the methodology that was used during the research in rural Uganda; chapter five presents the findings from this fieldwork. In chapter six, a data analysis and discussion are given, reflecting on the data that was presented so far by answering the research sub-questions. Finally, the seventh chapter draws conclusions, answers the main research question and presents recommendations to SCI-SLM.
CHAPTER 2. RESEARCH CONTEXT

In this chapter, the context of the research project is presented. First, basic background information is provided about Uganda, in which fieldwork has been conducted. After this, socio- and economic factors will be discussed. This is followed by a short political overview of the country, from independence on. Then environmental challenges for Uganda, and land degradation specifically, are covered. Sustainable land management is a worldwide answer to land degradation, and is mainstreamed in the project SCI-SLM (Stimulating Community Initiatives in Sustainable Land Management), under whose auspices the research project is conducted. The SCI-SLM hypothesis, objectives and methods will be discussed here as well. The particular focus of the study is on the rural Ugandan population, their land degradation challenges and interrelated socio-economic issues. These are therefore discussed extensively in this chapter and serve as a contextual background to the findings in the field.

2.1 The Republic of Uganda: “Pearl of Africa”

The Republic of Uganda is a landlocked country in East Africa. The bordering countries are the Democratic Republic of the Congo, South Sudan, Kenya, Tanzania and Rwanda. The relative small country (compared to neighbouring states) is often dubbed the “Pearl of Africa” because of the central location in Africa and its green hills, friendly inhabitants, diversity in landscapes, (tribal) cultures, and biodiversity.

Figure 1. Uganda’s location in Africa

2.1.1 Demographics, geography and climate

Demographics

The total population of Uganda is currently estimated at 32.9 million\(^1\) (UBOS, 2011) and is underpinned by a very high population growth rate of 3.5% per year (CIA, 2011): one of the highest population growth rates in the world. Many different ethnic groups inhabit the country, encompassing a great variety in local languages and cultural habits. English is the official national language though, and is used within the important institutions – schools, courts of law, in newspapers, etc. (ibid). The only major city is the capital Kampala, with approximately 1.6 million inhabitants (UBOS, 2011). The country has several other smaller cities, which are referred to as towns. This being said, only 13% of the total population is urban (World Bank, 2011).

Geography and climate

\(^1\) Current estimations about the population of Uganda are very differentiated according to different sources and range from approximately 32.7 (FAO and World Bank, 2011) – 34.5 million people (CIA World Factbook, FAO Stat., 2011). The Uganda Bureau of Statistics (UBOS) presents high and low variant estimates in their Population Projections report 2003-2017 (see references). In this context the current UBOS data (estimate mid 2011) is used.
Uganda has a total area of approximately 241,038 km², roughly the size of the United Kingdom, of which just over 80% (197,323 km²) consists of land (NDP, 2010). A total of 42% is arable land although just 21% is currently utilized. Most of the arable land is found in the southern part of the country, where the population density is also highest (ibid).

Uganda has an equatorial tropical climate with temperatures ranging from 16 - 31 degrees Celsius, very much depending on the altitude (UBOS, 2011). The highest point is Mount Stanley in the south-western Rwenzori Mountains, reaching an altitude of 5,100 meter with obviously a colder (even snowy) climate than the lower-lying areas. Generally the southern part of Uganda, around Lake Victoria and the River Nile, has more rainfall than the north, where it is semi-arid. Rainfall is well distributed over the country, except in the north-eastern corner.

*Figure 2. Geography of Uganda and neighbouring countries*

The southern region has two rainy seasons, usually around early April and in October. Dry season falls in June and December. In the north, occasional rains occur between April and October. From November to March it is often very dry. Mean annual rainfall near Lake Victoria can exceed 2,100 mm. The mountainous regions of the southeast and southwest receive around 1,500 mm of rainfall yearly. The lowest mean annual rainfall measures in centre and northeast Uganda, about 500 – 1,000 mm per year (Byrnes, 1990; BBC Weather, 2007; UBOS, 2011).

2.1.2 Economy, agriculture and socio-economic factors

*National economy and agriculture*

Uganda’s economy relies heavily on the environment and natural resource base (NEMA, 2008; NDP, 2010). Above all, agriculture is crucial for the country’s economic and social development, contributing to 21% of GDP and accounting for 48% of exports (NEMA, 2008; Nayenga, 2008). It was only recently that the share of agriculture to the GDP declined, from 47.7% in the late 1990s, and 41.6% in the 2000s (NEMA, 2008). Furthermore, the sector employs 73% of the population (NDP, 2010; GEF, 2010). While agriculture increasingly loses shares in GDP compared to other (secondary and tertiary) sectors, agriculture, forestry and fishing remain the most important providers of direct and indirect employment (ibid).

*Agricultural and rural development*

Over 85% of the Ugandan people live in rural areas, of which about 40% live in abject poverty (IFAD, 2011). Most rural people (an estimated 70%) derive their livelihoods from subsistence agriculture (MAAIF, 2008). Rural poverty is therefore a subject that deserves special attention from the Ugandan government and partnering development organizations. In the newest
National Development Plan (2010), the five-year strategic framework for economic development, a strong focus has been put on agricultural and rural development, especially on increased productivity and value addition (GEF, 2010). The Strategic Investment Plan by the Ministry of Agriculture (MAAIF, 2008) notes: “Agricultural growth is identified as a key determinant of the country’s efforts to reduce poverty in the near future, both transforming subsistence farming and commercial agriculture” (ibid: 41).

**Poverty and social development**

Nationally, the proportion of the poor population (living under the national poverty line) reduced from 31.1% in 2006 to 24.5% in 2010\(^2\) (UBOS STAT, 2011). It is estimated that nearly 8.4 million people in the country are poor, and about 7 million are trapped in chronic poverty. Chronically poor households “…are characterized by the presence of vulnerable groups such as widows, orphans, the unemployed, youth, plantation workers, PWDs (people with disabilities), the chronically ill, ethnic minorities and the elderly” (NDP, 2010: 276). This shows that poverty is not only a lack of financial resources; vulnerability, low capabilities and lack of empowerment can also make one (socially) poor (MAAIF, 2007).

**Objectives of social development**

Raising human well-being, empowering people, and strengthening human resource development are crucial to Uganda’s economic and social development, so that human resources will be used at its maximum potential and equity in access to opportunities will grow (NDP, 2010). It is therefore that the government of Uganda has developed specific objectives to improve the situation of the vulnerable\(^3\) members of society and to break the vicious poverty cycle. For this to happen many different drivers of poverty buried deep in society and its various cultures need to be pulled to the surface. Several issues are pointed out in the NDP that specifically constrain current human development targets (see annex 1 for an expanded explanation) such as: lack of education and access to information (ignorance), disease, environmental degradation, unemployment, inequality, violence and gender issues, lack of ownership and access to credit (2010).

Seven objectives are formulated in the National Development Plan in order to improve current constraints to social development. Some of these are elucidated:

1. Promotion of positive cultural values, norms and practices;

\(^{2}\) NB: It must be kept in mind that there are significant regional disparities in poverty levels. Mainly the central region of Uganda curtails the country’s average poverty rate. Poverty is highest and human development indicators are lowest in the north due to the nature and duration of conflict in this region.

\(^{3}\) Vulnerability refers to the risk of falling into poverty and perpetually living in a condition of impoverishment (NDP, 2010: 275)
2. Expanding social protection measures to reduce vulnerability and enhance the productivity of the human resource;
3. Promoting gender equality and women empowerment by ensuring equitable access to opportunities (...);

The Uganda NDP 2010 emphasizes the Local Governments’ (LG) important role to mobilise communities and enhancing empowerment. Strategies (and extensive intervention descriptions) are designed alongside these objectives for LG to work with.

**Human Development Index**

Despite Uganda’s increasing rank on the Human Development Index (HDI – see definition in the box below) since the late 1990s, it has not been able yet to move out of the list of ‘Least Developed Countries’ (LDCs) in the world, thereby belonging to the “poorest and weakest segment” of the international community (UNOHRLLS, 2011). Although Uganda has been above sub-Saharan Africa’s (SSA) average HDI since 1995, it still represents one of the 33 African countries on the United Nations LDCs list (a total of 48 countries), finding itself way below the world’s average Human development standards (UNDP, 2011a). The inequality-adjusted HDI (IHDI)\(^4\) shows that SSA has the highest level of inequality in the world; people in this region suffer the largest losses due to inequality in all three dimensions (health, education, income) of the HDI, according to the UNDP (2011a).

**Box 1. Definition of the Human Development Index**

*Human Development Index*: a composite index measuring average achievement in three basic dimensions of human development – a long and healthy life, knowledge and a decent standard of living. (UNDP, 2011b).

2.2 Uganda’s political development: 1962 - present

After independence from Britain in 1962, The Republic of Uganda has gone through various stages of turmoil and development. From relative political stability in the first post-independent decade, to economic mismanagement and rough civil conflicts up to the late 1980s, wherein several gruesome military coups took place leaving behind huge debts, torn apart families and villages, and tremendous political instability. In 1987 the Economic Recovery Programme (ERP)

\(^4\) The IHDI takes into account not only the average achievements of a country on health, education and income, but also how those achievements are distributed among its citizens by “discounting” each dimension’s average value according to its level of inequality.
was announced by the Government under the lead of Y. Museveni, who is still the current president of Uganda (NDP, 2010: 10; U.S. Dept. of State, 2011). After the ERP launch, GDP grew at an average annual rate of 6.5% into the mid nineties, restoring macroeconomic stability (NDP, 2010).

The last two decades have seen structural reform in Uganda, bringing economic progress and political liberalization. In the process, several Millennium Development Goals (MDGs) were pursued, such as fighting extreme poverty (achieving to half the 56% poverty rate recorded in 1992/93), stimulating gender equality and creating environmental sustainability (UBOS Stat, 2011).

Despite this recent progress, the Republic still has a long way to go and continues to struggle with many great social, economic, and environmental issues. The issues at hand seem to be highly interdependent and the government recognises this. The 1997 Poverty Eradication Action Plan (PEAP) and last year’s follow-up the National Development Plan (NDP) describe development strategies for the coming years, and include different aspects of sustainable development (from political to environmental issues, and how to balance the different objectives). The NDP vision is: “A transformed Ugandan society from a peasant to a modern and prosperous country within 30 years” (2010).

The World Bank (2011) notes that in 1997, Uganda was the first country to prepare a comprehensive participatory national development strategy. The current NDP has broadened its scope since that time, “...from poverty reduction to structural transformation for growth and increased living standards” (ibid). Through increasing decentralized administration, sub-national development must be delivered, bringing services closer to the people and involving communities in decision-making and planning processes of their areas, creating locally and context-specific, needed change (NDP, 2010: 360).

2.3 Environmental challenges

This part of the research context will solely focus on environmental challenges in Uganda and land degradation in particular. In section 2.4, reactions to these challenges are described in the

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5 For a full overview of the MDGs and the current status of Uganda, the latest UNDP “MDGs Report for Uganda 2010” is available online (see references).

6 Defined: “Development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (WCED, 1987). The achievement of sustainable development requires the integration of its economic, environmental and social components (UN DSD, 2011).
form of land management approaches and current policies and programmes having to do with fighting land degradation, in Uganda.

2.3.1 Introduction to environmental challenges in Uganda

Uganda’s (sustainable) development goes hand in hand with managing its environmental resources (NEMA, 2008). The natural environment (see definition in box 2, below) contributes to the productivity of many sectors in Uganda, especially agriculture, industry and fisheries, and is capable to reduce public costs of providing certain services, such as those related to disease. Moreover, the majority of the people in Uganda directly depend on the environment to make a living, especially those living in remote, rural areas. Natural resources are therefore vital to Uganda and need to be exploited sustainably in order to keep up with external pressures like population growth, economic activities and the effects of climate change (NDP, 2010; NEMA, 2008).

Rapid deterioration of the quantity and quality of Uganda’s natural resources and biodiversity is definitely apparent these days (NDP, 2010). Major challenges include environmental degradation through habitat conversion, pollution, proliferation of invasive species and managing the impact of discovered oil and gas. Environmental management cuts across all sectors, and requires participation of various actors with different interests. This again presents challenges in Uganda’s development targets. (NDP, 2010: 311). Land degradation through soil erosion and loss of soil fertility is particularly one major environmental problem in Uganda, as will be clarified in the upcoming paragraphs.

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<th>Box 2. Defining ‘the environment’</th>
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<tr>
<td><strong>Natural environment</strong> (narrow definition; ‘nature’): the physical environment: air, water, land, and all the biota that grows and live therein.</td>
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<tr>
<td><strong>Environment</strong> (broad definition; the relationship with society is mentioned): the physical, non-living and living, surrounding of a society with which it has a reciprocal relationship.</td>
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(Boersema and Reijnders, 2010)

2.3.2 Land as a resource

The resource of land is the most important asset to Uganda and its people (MAAIF, 2007; GEF, 2010), given its contribution to the economy and since so many Ugandans directly depend on it to secure their livelihoods. Since this research project focuses on the ecosystem of land, and the practice of sustainable land management (SLM) in particular, here we will have a closer look at
the problem of land degradation. First the environmental issue will be explained in general, followed by an extensive discussion about land degradation and its consequences for Uganda’s development, her people, and policy-making.

2.3.3 Land degradation

Impacts, causes and the scope of land degradation

The environmental concern of land degradation (LD) “...has triggered large-scale population movements, disrupted economic development prospects, aggravated regional conflicts and instability, and threatened the lives and livelihoods of people living under its shadow” (GEF, 2003: 1). LD is said to be one of the most important environmental problems challenging the notion of sustainable development worldwide (Mudita, 1999; Gisladottir and Stocking, 2005).

Often-mentioned underlying causes of LD are poverty, land shortage and the growing population (FAO, 1995). Indeed, the link between (very) dry areas of land and the poorest of the poor inhabiting exactly these regions (Gisladottir and Stocking, 2005) makes LD a major topic within (United Nations’) international conferences, national development strategies, and local governments’ agendas. Above all, land degradation is a very serious problem for over two billion people worldwide, who depend directly on natural resources for their survival (Gisladottir and Stocking, 2005). It is in this context that land degradation must be understood.

Land degradation cannot be fought against or treated separately from its economic, social and political circumstances (Gisladottir and Stocking, 2005). The problem is a local to global problem, and must be treated as such, while paying attention to “...controlling the drivers of change – including those not directly related to land degradation” (ibid: 104).

Land degradation defined

Now that the scope and major impacts of the problem is clarified, it is important to understand what land degradation exactly means. Below, a definition of land degradation is given. This definition from the Millennium Ecosystem Assessment puts an emphasis on the link between ecosystems, their functioning, and human well-being (MEA, 2005):

“Land degradation is a reduction in the capacity of the land to perform ecosystem functions and services that support society and development”

Land degradation can refer to many different processes, and can either be human-induced or instigated by natural processes. Here, we focus on the first, since production from land has intensified immensely with the globally growing population and widespread agricultural
practices. The last few centuries, we have been increasingly removing natural vegetation, applying poor soil and water management practices, frequently using heavy machinery, deforesting, enabling overgrazing, and so on (Magunda et al., 2010; FAO, 2011a). Although this has brought more production from land and economic growth, it simultaneously has been characterized by unsustainable development and practices, with degradation as the consequence.

Desertification and climate change

Desertification is a ‘special’ category of land degradation receiving the needed international attention, and is defined as: “... The degradation of land in arid, semi-arid and dry sub-humid areas. It is caused primarily by human activities and climatic variations. Desertification does not refer to the expansion of existing deserts. It occurs because dryland ecosystems, which cover over one third of the world’s land area, are extremely vulnerable to over-exploitation and inappropriate land use” (UNCCD, 2011). The United Nations Convention to Combat Desertification (UNCCD), with 191 joined governments, has been formulated to focus primarily on combating land degradation in inhabited drylands around the world (UNCCD, 2011). The convention also works as “... a multilateral soil framework for adaptation, mitigation and resilience in combating the challenge/effects of climate change” (see box 3 below for a short explanation of the link between climate change and LD) (ibid).

Land versus soil

Finally, it must be noted that land defines more than just soil. Since soil and land are often used interchangeably, the definition of land is clarified. ‘Land’ serves as an umbrella term, where soil, vegetation and biota are part of a broader system. Land is defined here as “the terrestrial biologically productive system that comprises soil, vegetation, other biota and the ecological and hydrological processes that operate within the system” (UNCCD, 1994: 5).

Box 3. Land degradation and climate change

Land degradation plays a major role in the well known ‘climate change arena’. Mitigating GHG emissions is crucial to reduce the effects of climate change and the predicted global warming (ISRIC, 2011). According to ISRIC - World Soil Information, 25 - 30% of the current annual emissions of CO₂ into the atmosphere is the result of land use change (2011). Since soil and vegetation have the ability to sequester and store carbon dioxide, methane and other
greenhouse gasses (ibid), human-induced land degradation is likely to speed up the loss of biodiversity and resilience, making degraded areas even more prone to the effects of climate change. (ISRIC, 2011)

It must be clear by now what the scope of the problem of land degradation is, and what crucial role it plays in global sustainable development. In the next section, the environmental concern of LD in Uganda will be explored.

2.3.4 Land degradation in Uganda

“Agriculture is at the core of the livelihoods of most rural households in Uganda. It is a major engine for overall economic growth and possibly the single most important pathway out of poverty in the rural space”

Bayite-Kasule, IFPRI Uganda 2009: 1

Uganda’s soils were once among the most fertile in the tropics (NEMA, 2006/07). Unfortunately, things have changed. Of all Sub-Saharan African nations, Uganda has some of the most severe soil nutrient depletion in Africa (Nkonya et al., 2008; NDP, 2010). The MAAIF Development Strategy and Investment Plan (2008: 37) reports that “… 36 percent of Uganda is affected by severe land degradation and 10 percent by very severe land degradation”, following recent studies. FAO (2011) and GLASOD sources (FAO AGL, 2005) confirm these statistics. Figure (3) below, shows different environmental constraints in Uganda, in which the pink category indicates ‘severe and very severe land degradation’.

The regionality of land degradation in Uganda

Certain areas in Uganda have been identified to bear the greatest impacts of land degradation (NEMA, 2010). In some districts of Uganda even 90% of the land is affected by some form of land degradation (Olson and Berry May, 2003). Among these regions are the highland areas (Pender et al. 2003), and the so-called “cattle corridor” or the drylands (MAAIF, 2007). Especially this last mentioned region covers a large part of the country (about 84,000 km²) (Olson and Berry May, 2003; Kakuru et al. 2004).

The Uganda Ministry of Agriculture (Animal, Industry and Fisheries), shortly MAAIF, identified two more land degradation hotspots where soil erosion and infertility are highest, and
emphasized the four areas in their latest Strategic Investment Framework (MAAIF SIF) and NDP:

- The Dry Lands / The Cattle Corridor (see figure below);
- The Highlands – Eastern and South-western Highlands;
- Eastern and Northern Uganda;
- Lake Victoria Crescent Region (Muwaya, 2011).

**Figure 4. The cattle corridor in Uganda: coloured pink (Muwaya, 2011)**

Types, Causes and Consequences of Land Degradation in Uganda

The major human-induced types of land degradation in Uganda in terms of priority include soil erosion, soil nutrient depletion, and habitat loss (Banadda, 2010; IFPRI, 2008; NDP, 2010) and rates of erosion seem to be increasing (Pender et al., 2003; NDP, 2010). Direct causes for land degradation include overgrazing, deforestation, inappropriate farming systems, land and tree tenure and bush burning (Kakuru et al., 2004), and are frequently driven or worsened by poverty and external market forces, population pressure, and land fragmentation (MAAIF, 2007). Pender et al. note: “most major crops have been stagnant or declining since the early 1990s” (2003: 990). Farmers’ yields are going down, while more mouths need to be fed.

Poor nutrient management is one of the biggest problems, looking at the rates at which soil nutrients are depleted: “The average annual rate of total soil fertility depletion is 70 kilograms of nitrogen, phosphorus, and potassium per hectare”: these are among the highest in SSA (NDP, 2010: 205). Uganda uses way below average amounts of fertilizer (even among the lowest fertilizer use in the world) to keep up with cultivation practices (Nkonya, 2002; NDP, 2010). This is primarily so because of the high price of fertilizer which is not affordable for many small-scale farmers.

Costs of environmental degradation are estimated as 17% of Uganda’s yearly Gross Domestic Product, primarily due to soil erosion (MAAIF, 2007; Magunda et al., 2010). For small-scale subsistence farmers – occupying over one-third of Uganda and growing – land degradation means low productivity thus higher food insecurity and increased vulnerability. Land is a “key strategic resource” for Uganda (Pender et al., 2003), and obviously must be protected in order for the country and its people to develop and climb out of poverty.

In short, land degradation is serious for Uganda. So what can be done to address it? In the remainder of this chapter, reactions and answers to land degradation in Uganda will be presented.
2.4 Fighting land degradation in Uganda

In Uganda many programmes, policies and plans have been designed from the 1990s onwards, with agriculture and its development as a focal point to attain overall prosperity. In this section, first an introduction to (agricultural-related) development programmes in Uganda is given, after which a summary will be presented of several agricultural development programmes and initiatives in the country.

*Agricultural development programmes in Uganda from late 90s – present*

Since the realisation of the Poverty Eradication Action Plan (PEAP) in 1997, with the Plan for Modernization of Agriculture (PMA) serving as an important part of that, agricultural development has continued to be a crucial subject within Poverty Reduction Strategies and overall sustainable development objectives in Uganda. The government of Uganda (GoU) has increasingly invested in public agricultural research and development (ARD) from 2005 onwards, although primarily, investments have gone up as a result of donor and development bank funding from 1995 on (IFPRI, 2011). Research capacity at the higher education institution Makerere University also grew in recent years, and MAAIF has been partnering up with different development organizations and participating in programmes to mainstream sustainable land management (SLM) and strengthen ARD (IFPRI, 2011; MAAIF, 2008).

In the 2010 NDP, agriculture is recognized as one of the focal points. Towards the present, Ugandan national poverty reduction strategies and action plans have been increasingly involving underlying drivers of land degradation. It has been acknowledged that agricultural development objectives cannot be treated isolated from other development objectives, such as poverty eradication but also (political) empowerment of vulnerable communities and individuals, health and gender issues, and the global climate change concern.

An endless list of programmes, stakeholders and partnerships can be created, which all have something to do with either developing agriculture, economic growth, or both combined with other development goals. The United Nations development programmes (UNCCD, UNHCR UNEP, UNDP, FAO), the Global Environment Facility and World Bank are involved, as well as TerrAfrica (more details follow later in this chapter) and other African coalitions. On the next page, table 1 presents some of the most distinct initiatives and plans by the GoU are summarized to get an idea how agricultural-related policy-making makes part of national development objectives.
| Government of Uganda (GoU) initiatives / bodies |

*Table 1. Overview of several (non-)governmental initiatives and development plans linked to agricultural development in Uganda*
<table>
<thead>
<tr>
<th>Ministry of Agriculture, Animal Industry and Fisheries (MAAIF): is to support, promote and guide the production of crops; livestock and fish, in order to ensure improved quality and increased quantity of agricultural produce and products for local consumption, food security and export.</th>
<th>The National Agricultural Research Organisation (NARO) – since 2005 – is the apex body for guidance and coordination of all agricultural research activities in the national agricultural research system in Uganda. The objective of NARO is for the coordination and oversight of all aspects of agricultural research in Uganda (NARO, 2011).</th>
<th>The National Agricultural Advisory Services (NAADS) – since 2002 – a programme put in place to increase the efficiency and effectiveness of agricultural extension service. A semi-autonomous body serving to develop a demand driven, farmer-led agricultural service delivery system targeting the poor subsistence farmers, with emphasis to women, youth and people with disabilities. Goal is to enhance rural livelihoods by increasing agricultural productivity and profitability in a sustainable manner. Supervised by MAAIF (NAADS, 2011).</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>National Development Plans</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poverty Eradication Action Plan (PEAP) – since 1997 up until now – 4 main goals: creating a framework for economic growth and structural transformation; ensuring good governance and security; directly increasing the ability of poor to raise incomes; and directly increasing the quality of life of the poor (IMF, 2011).</td>
<td>Plan for Modernization of Agriculture (PMA) – part of PEAP – since 1997 – a framework for eradicating poverty through multi-sectional interventions enabling the people to improve their livelihoods in a sustainable manner. Modernizing agriculture will contribute to increasing incomes of the poor by raising farm productivity, increasing the share of agricultural production that is marketed, and creating on-farm and off-farm employment. Main target beneficiaries are the subsistence farmers who constitute the majority of the poor in rural areas (PMA, 2011).</td>
<td>National Development Plan (NDP) – since 2010 – updated version of PEAP. The plan stipulates the Country’s medium term strategic direction, development priorities and implementation strategies. It details Uganda’s current development status, challenges and opportunities. In line with the National Vision Framework, six (6) five-year NDPs will be implemented of which this is the first. The theme of this NDP is “Growth, Employment and Socio-Economic Transformation for Prosperity.” To transfer the Ugandan society from a peasant to a modern and prosperous country within 30 years.</td>
</tr>
</tbody>
</table>
To conclude, it can be said that advancements are visible in Uganda, although challenges remain. Land degradation has not yet received the desired attention in the development agenda of Uganda, according to the SLM Investment Framework of MAAIF (Muganda et al., 2010). Even though at national level LD has been pointed out as a problem and insisting that steps need to be taken, this does not mean that action plans are actually (fully) implemented at lower levels of government. Besides, agricultural research and development is still very much “... dependent on donor and development bank funding, the role of the non-profit and private sectors is small, and income from the commercialization of research is limited” (IFPRI, 2011). Nevertheless, aforementioned progress in ARD and supporting sustainable land management (SLM) programmes, coalitions and government policies show that land degradation is treated as a serious problem in the country, which undoubtedly needs to be counteracted.

Scaling up and supporting of sustainable land management (SLM) has been mentioned many times in the former paragraph, making part of strategies to improve agriculture and fight land degradation. In the next paragraph, SLM will be explained in more detail, after which the SCI-SLM partnership project will be introduced.

### 2.4.1 Sustainable land management

“... It is indeed the capacity of agricultural systems to respond to change, i.e. the capacity to remain flexible, that will ensure sustainable systems. Static agricultural systems, like the dinosaurs, are not sustainable systems”

Dumanski et al. 1998: 1

**A new and improved approach**

With the 1992 Earth Summit, a new and integrated approach to the problem of land degradation was brought up, emphasizing action to promote sustainable development at the community level (UNCCD, 2011; Hurni, 2000). The term sustainable land management (SLM) was coined, although efforts to reduce land degradation were not new, obviously. It was from that time on that globally, SLM emerged “... as a follow-up to the global discussion on ‘sustainable development’ initiated by the Brundtland Commission” (Hurni, 2000: 84). Subsequently, a framework to evaluate SLM developed, including its concepts and methodologies. Literature on sustainable development and agricultural development could not mention land degradation anymore without also mentioning the opposite, which offers a solution to the problem: sustainable land management.
**SLM defined**

Simply said, SLM means: looking after the land to improve and maintain its ecosystem functions (SCI-SLM, 2009: 6). TerrAfrica proposes the following definition of SLM (in: Magunda et al., 2010):

> “Adoption of land systems that, through appropriate management practices, enables land users to maximize the economic and social benefits from land while maintaining or enhancing the ecological support functions of the land resources”.

WOCAT (2007) provides a slightly more extensive definition but touches upon the same points as TerrAfrica, including its social, economic and environmental aspects:

> “SLM is the use of land resources, including soil, water, animals and plants for the production of goods to meet changing human needs, while simultaneously ensuring the long-term productive potential of these resources and ensuring their environmental functions”.

In order to reach sustainable agriculture, sustainable land management has been defined on the basis of certain performance indicators (Dumanski et al., 1998). In this discussion, it is noted “Agriculture that is truly sustainable will not be business as usual” (ibid, 1998:1). Instead, SLM asks for change, while creating a different attitude towards agricultural development by combining “… technologies, policies and activities aimed at integrating socio-economic principles with environmental concerns so as to simultaneously:

- maintain or enhance productivity/services;
- reduce the level of production risk;
- protect the potential of natural resources and prevent degradation of soil and water quality;
- be economically viable;
- be socially acceptable” (Dumanski et al, 1998: 5).

Current definitions of SLM agree on this point, while realizing that land degradation is locally differentiated and very context specific, making locally specific mechanisms and procedures necessary and successful (Koning and Smaling, 2005). But although regions and countries encounter distinctive and locally specific issues, agricultural policies have been very similar, learning from history (FAO, 2009). The comprehension that there is no “one-size-fits-all” approach to land degradation, is truly recognized by the SLM approach. Albeit, maybe needless
to say, local success-stories of sustainable land management practices are (able to be) dispersed and up-scaled, when contextual the particular method fits in a different environment or policy frame as well (SCI-SLM, 2009).

**SLM’s multidisciplinarity**

SCI-SLM’s inception report (2009: 6) notes that SLM can be conceptualised as having various complementary focuses, reconfirming that the concept of SLM is highly multi-disciplinary, and important in different sectors:

- **Technical focus** (e.g., imitating forest floor conditions)
- **Ecosystem focus** (caring for land and landscapes- not just soil)
- **Economic focus** (should be affordable and profitable)
- **Sociological focus** (participation; people part of solution and deriving benefits).

SLM includes capacity building and enhancing rural livelihoods, hence often mentioned as one of the important mechanisms to fight rural poverty in the world (The IBRD / World Bank, 2008). On top of this, SLM has the potential for mitigating the effects of climate change, thereby stimulating location and global action to improve farming systems even more, as is illustrated in the following scheme:

*Figure 5. SLM can be part of the solution to climate change (Critchley, 2010)*

### 2.4.2 Sustainable land management and Uganda

For Uganda, SLM is a “key entry point” for improving land resource resilience and productivity (Magunda et al., 2010). According to the latest SLM-SIF presentation (ibid), sustainable land management strategies and practices will ensure increased and long-term productivity, maintain
ecosystem functions, and enable farmers and communities to become more resilient to climate change (ibid). SLM is believed to contribute to attaining MDGs in Uganda, most importantly the ones directly linked to land degradation: (i). The target of halving the proportion of people who suffer from hunger (between 1990 – 2015), and (ii.) Integrating the principle of sustainable development into country policies and programs and reverse the loss of environmental resources (ibid).

Ultimately, Uganda’s SLM framework revolves around mainstreaming SLM into the agricultural development strategy and investment plan (DSIP) of MAAIF, and mainstreamed into the National Development Plan (years 2011 to 2015). Long-term objectives mentioned in the 2010 presentation of Uganda’s SLM Strategic Investment Framework (SIF) (Muganda et al.) are:

i. To scale up targeted pro-poor on-the-ground investments in SLM;
ii. Mainstream SLM in development frameworks and strategies at all levels;
iii. Improve governance for land management decision making, and
iv. Improve mutual learning across stakeholders.

Several sectors are involved, such as the land, trade, water and environment, energy and agriculture sector. Each will perform its sector roles and carry their responsibilities; at least that is the plan. Not only government institutions will be involved in the goal to mainstream SLM practices in the national development of Uganda. NGOs, community-based organisations, as well as the private sector will be included. Targets have been set, and projects are evolving as we speak.

One of the many projects and partnerships in Uganda mentioned in the TerrAfrica’s first regional workshop (Muwaya, 2011) is the regional ‘Stimulating Community Initiatives in Sustainable Land Management’, (highlighted in the overview below: point 5), which is in consonance with objectives of Uganda’s SLM Strategic Investment Framework. In the final section (3.4.3) of this chapter, the project SCI-SLM will be clarified.

TerrAfrica needs a brief explanation here since it is an important partnership platform in Africa, which specifically aims to create the enabling environment for scaling up and mainstreaming SLM (its technologies, approaches, and the implementation of institutional, policy and budget reforms) at the country level. African governments, multilateral organizations, donor governments, civil society organizations and scientific organizations work together in this partnership, providing a collective vehicle for addressing bottlenecks, resulting in unlocking and increasing efficiency of financial and non-financial resources, to create an enabling environment.
for mainstreaming and financing effective nationally-driven SLM strategies.

Table 2. On-going and Pipeline Projects and Partnerships (Muwaya, 2011)

<table>
<thead>
<tr>
<th>Name</th>
<th>Addition</th>
<th>Implemented by</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. ATAS – Agricultural Technology and Advisory Services Project</strong></td>
<td>SLM activities supported in NARO, NAADS and the UNCCD Focal Point</td>
<td>World Bank and GEF</td>
</tr>
<tr>
<td><strong>2. Mainstreaming SLM activities in 6 Cattle Corridor districts of Uganda</strong></td>
<td>Mainstreaming SLM activities in 6 Cattle Corridor districts of Uganda</td>
<td>UNDP / NORWAY</td>
</tr>
<tr>
<td><strong>3. Enabling environment for SLM in the Cattle Corridor districts</strong></td>
<td>Enabling environment for SLM in the Cattle Corridor districts</td>
<td>UNDP / GEF</td>
</tr>
<tr>
<td><strong>4. Transboundary Agr-Ecosystem Management Programme for the Kagera River Basin</strong></td>
<td>Transboundary Agr-Ecosystem Management Programme for the Kagera River Basin</td>
<td>GEF / FAO</td>
</tr>
<tr>
<td><strong>5. SCI-SLM: Stimulating Community Initiatives in Sustainable Land Management</strong></td>
<td>Regional project Stimulating Community Initiatives in SLM</td>
<td>GoU</td>
</tr>
<tr>
<td><strong>6. GEF 5 Pipeline projects under star (Synergy SLM and Climate Change)</strong></td>
<td>- Sustainable charcoalproduction - Sustainable management of Uganda’s Eastern and SW Highlands Ecosystem</td>
<td>GEF / UNDP</td>
</tr>
<tr>
<td><strong>7. Conservation Agriculture</strong></td>
<td>Conservation Agriculture</td>
<td>COMESA / Norway</td>
</tr>
<tr>
<td><strong>8. Development of World Bank Project on Environment and Natural resources Management</strong></td>
<td></td>
<td>World Bank</td>
</tr>
</tbody>
</table>

in: TerrAfrica first regional workshop, Kagera Tamp. by S. Muwaya (2011)

2.4.3 Stimulating Community Initiatives in Sustainable Land Management (SCI-SLM)

This research project was conducted under the auspices of the SCI-SLM project: ‘Stimulating Community Initiatives in Sustainable Land Management’. The project is up and running in four countries in Africa: Ghana, Morocco, South Africa and Uganda; they represent four regions of Africa, and include Anglo- and Francophone countries. SCI-SLM had first been conceived in 2002, and was finally approved in 2009 by the Global Environment Facility (GEF)\(^7\) for funding. SCI-SLM is projected to run until August 2013 (SCI-SLM, 2009). ‘Stimulating Community Initiatives in SLM’ is a project linked to the wider GEF agenda of sustainable land management, through the Land Degradation Focal Area. SCI-SLM does not only promote partnership, the project itself is a partnership as well. The following three agencies are involved in SCI-SLM:

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\(^7\) An independent financial organization since 1991, the GEF provides grants to developing countries and countries with economies in transition for projects related to biodiversity, climate change, international waters, land degradation, the ozone layer, and persistent organic pollutants (the six GEF focal areas) The GEF is the financial mechanism for the four Multilateral Environment Conventions, among which the UNFCCC, CBD and UNCCD (UNEP, 2011).
• United Nations Environment Programme\(^8\) (UNEP / GEF) as overall implementing agency;
• The University of KwaZulu Natal as the overall coordinating agency, and
• The Centre for International Cooperation (CIS) of the VU University Amsterdam as the technical backstopping agency.

**Promoting Farmer Innovation**

SCI-SLM builds on the success of PFI (Promoting Farmer Innovation (in Rainfed Agriculture)), which was developed by the UNDP office to Combat Desertification and Drought in the context of implementing the Convention to Combat Desertification. (SCI-SLM, 2009). The goal of PFI was “... to harness the energies, ideas and rich experiences of innovative farmers for improving rainfed agriculture” in Kenya, Uganda and Tanzania (Reij and Waters-Bayer, 2001: 7). Significant achievements with individual farmer innovators were documented during this three-year programme, and have been disseminated to other farmers (SCI-SLM, 2009: 14). The components of the farmer innovation approach and participatory methodology utilised in PFI and in the SCI-SLM project form an important part of the initiatives, and will be explained later on in the thesis (chapter 4. Methodology).

**Community initiatives: valuing indigenous knowledge and innovations**

Communities are sometimes found to have their own solutions to forthcoming problems of land degradation, and these local solutions, here termed ‘initiatives’ or ‘innovations’ (see box below for definitions), are what SCI-SLM is looking for. The project acknowledges and harnesses land-based communities’ indigenous knowledge and their capacity to come up with solutions internally and also looks to disseminate these initiatives, since it is convinced of the value of community-based SLM for further development at the national level. Much experience in the field, visiting farmers and discussing with them what has changed since their innovations, has proven that local community innovations succeed where formal research recommendations have often failed (CIS-VU, 2011), making it even more important to include local initiatives, which have the benefit that they are already designed to their specific context; including culture, available resources, geography and climate, etc.

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\(^8\) UNEP is an Implementing Agency of the GEF. It is the only GEF Agency whose core business is the environment (UNEP, 2011).
Box 4. Defining community initiatives

- **Innovation**: an initiative/innovation (basically synonymous) was defined as “being new in local terms, developed by a local community with little/no help or money from outside”. It can be a technical and/or a social initiative having potential to spread (SCI-SLM, 2009).
- **Community**: a group with a common interest and (in the case of SCI-SLM) the initiative is the “entry point” to identification of the community (ibid).
- **Community-based SLM**: SLM initiatives or innovations brought about by or within a (farmer) group or community.

**SCI-SLM programme development**

SCI-SLM’s overall programme does not differ much from its predecessor PFI. The “Programme Development Processes” have broadly remained the same (see figure 6 below for the Programme Development Process): “Capacity building is the foundation and the processes move “upwards” towards the ultimate goal of institutionalization” (SCI-SLM, 2009: 12). However, there is a crucial difference which should be taken into account when we talk about the “field activities” (see: chapter 4 Methodology).

![Figure 6. SCI-SLM Programme Development Process (SCI-SLM, 2009)](image_url)

Where PFI mainly characterised individual innovations and innovators, the SCI-SLM focus is on community initiatives. Community initiatives that fall under SCI-SLM mandate are defined by the following characteristics:

- New in local terms
• Developed by a local community/or group
• Developed with little or no help/or money from outside
• Technically and/or socially innovative 9 (see below)
• Potential to spread (SCI-SLM, 2009).

A good social innovation?
Since the secondary objective of the thesis is to re-evaluate the current SCI-SLM methodology relating to social innovation – which is still rather undeveloped – the S-R-I test will be briefly elucidated here since it will be referred to in the two final chapters of the thesis. In order to test whether a social innovation is a ‘good’ social innovation, according to SCI-SLM standards, the particular requirements are (Critchley, 2007: 23):

• Sustainable: can this innovation endure?
• Inclusive: is the social innovation elitist or open to all?
• Replicable: is there potential for spread?

SCI-SLM: adding value
SCI-SLM has been devised to add value to community initiatives - through creating research partnerships and establishing communication flowlines (i.e. enabling cross-visits between innovative farmer communities) of successful initiatives to encourage and to learn other communities about local solutions to problems of land degradation. At a higher level (see also SCI-SLM “Programme Development Process” figure above), SCI-SLM seeks to institutionalise the concept and mechanisms of their approach in the relevant government ministries and amongst other organisations (SCI-SLM, 2011).

SCI-SLM hypothesis and objectives
Spontaneous innovations are the central point of SCI-SLM; initiatives that came from the ground because communities or certain key people within a (farmer-) group saw the need, themselves. The hypothesis of SCI-SLM is that: “Spontaneous community initiatives in sustainable land management (SLM) can be a valuable weapon against the serious and interconnected problems of land degradation and poverty – and climate change - in dryland areas of Africa” (SCI-SLM, 2009: 14). Finally, the SCI-SLM objectives (1st environmental, 2nd developmental objective) are:
1. to refine ways of stimulating the further improvement and spread of community-based SLM

9 Technical SLM innovations must be passing the ‘TEES’-test: being technical effective, economically valid, environmentally friendly, and socially acceptable and are tangible. For social innovation, the ‘SRI’-test has been developed: sustainable, replicable, and inclusive (SCI-SLM, 2009). Social innovations are changing institutions or organizational structures.
initiatives to achieve local and global benefits, while simultaneously developing a methodology to upscale and institutionally embed SCI-SLM approaches at local and regional level in four pilot countries in Africa; and

2. to upscale SLM and reduce impacts of land degradation on ecosystem function and services (SCI-SLM, 2009: 14-15).

**SCI-SLM in the field: working with local communities**

In order to work with communities and identifying their (community) initiatives of SLM, a participatory approach has been set out to use within the project. According to the inception report of SCI-SLM, the practical guide “Working with Farmer Innovators” (Critchley, 2007) serves as a directory in this respect. The project asks for a reassessment of how different players connected in the SLM field – researchers, extension (workers), farmers – should work (together) to stimulate community initiatives. A shift agricultural development methods or paradigm is to be observed in this matter. More about the fieldwork approach of ‘how to work with farmer/community initiatives in SLM’ and its importance for this research project, will be presented in the methodology chapter.

**2.4.4 SCI-SLM progress in Uganda**

In Uganda, SCI-SLM was implemented unofficially around 2004 – with UNEP/GEF money meant to facilitate preparatory missions (Spanjaard, 2005). From 2007 on, SCI-SLM progressed under Government of Uganda funding, without awaiting official grants from the GEF (SCI-SLM, 2009). The national lead agency of SCI-SLM in Uganda is the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) but is also supported by non-governmental organisations (NGOs) and other institutions, such as universities and development organisations (SCI-SLM, 2009). Since Uganda was involved in the PFI project (1997 to 2001) and in the second phase of the Indigenous Soil and Water Conservation (ISWC) research programme, the notion of ‘farmer innovation’ was not new to the country; in fact, the methodology to include ‘farmer innovation’ had already been incorporated in GoU policy documents (pers. comm.: W. Critchley, April 2011).

At the start of SCI-SLM, certain ‘action regions’ were identified, such as the “cattle corridor” and several rangelands in the southwest (MAAIF, 2008). Cross-visits have been set up since then, and have been successful in disseminating local knowledge. Government workers, researchers and several students visited different communities to identify innovativeness within SLM (SCI-SLM, 2010; pers. comm.: W. Critchley, April 2011). The GoU is also increasingly involving universities, farmers, NARO, and NGOs in the process of identifying innovative communities, in order to create a broader network to search for initiatives, and spreading the word on SCI-SLM methods
Former Environment and Resource Management (ERM) research projects in Uganda

A number of ERM and other Master’s students have been going ‘into the field’ in Uganda under the projects SCI-SLM or PROLINNOVA before, both acknowledging the strength of bottom-up approaches to agricultural and livelihood development, and enhancing farmers’ capabilities. All research projects added information to the ‘farmer innovation database’, and touched upon different important subjects for SCI-SLM’s (or PROLINNOVA’s) evolution and give an insight into Uganda’s agricultural development challenges. An overview of several former students’ research projects in Uganda is presented in table (3) below. As can be concluded from the overview, many different effects or impacts of acknowledging farmer innovation have been studied in the field, mainly through participatory methods. This has been valuable not only for the Government of Uganda and their steps towards mainstreaming SLM and embracing farmer innovations, but also for the programmes under which they have been performed.

10 PROLINNOVA (until 2010): PROmoting Local INNOVAtion in ecologically oriented agriculture and Natural Resource Management. The focus is on indigenous knowledge and enhancing capacities of farmers to adjust to change – to develop their own site-appropriate systems and institutions of resource management so as to gain food security, sustain their livelihoods and safeguard the environment.

11 Derived from former ERM/master students’ theses, all supervised by Dr. W. Critchley (CIS-VU).
Table 3. Overview of former (ERM) Master Students performing a research project in Uganda under SCI-SLM or PROLINNOVA

<table>
<thead>
<tr>
<th>Year of publication</th>
<th>Student name</th>
<th>Programme</th>
<th>Title of thesis / Research focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>Guido Spanjaard</td>
<td>SCI-SLM</td>
<td>Identification of community initiatives in sustainable land management: participatory community research in Southwest in Uganda</td>
</tr>
<tr>
<td>2006</td>
<td>Melanie Vaessen</td>
<td>SCI-SLM</td>
<td>Research on Rwoho environmental conservation and protection association (RECPA). Does RECPA fit in with the SCI-SLM objectives?</td>
</tr>
<tr>
<td>2006</td>
<td>Mariya Deren (ERM)</td>
<td>SCI-SLM</td>
<td>Local adaptation strategies (climate change) to land degradation: case study of Rwoho, Uganda</td>
</tr>
</tbody>
</table>
| 2008                | Kim Hagen (ERM) | PROLINNOVA | From Degradation to Innovation  
The effect of support and funding on promoting local innovation in Kikandwa Environmental Association, Uganda |
| 2008                | Angela Tejada (ERM) | SCI-SLM   | United we stand? – Tree planting by a Community Based Organization (A case Study from Rwoho, Uganda)  
About the effect of support and funding in relation to stimulation of improvements in, and/or up-scaling of social innovation in Rwoho RECPA |
| 2009                | Helen Kranstauber (ERM) | PROLINNOVA / SCI-SLM | Ecological agriculture in Uganda and the contribution of farmer innovation.  
To what extent is ecoagriculture being practised by farmers? And what is the effectiveness of the LISF in promoting ecoagriculture through farmer innovation? |
| 2009                | Zsofia Bossanyi (ERM) | PROLINNOVA / SCI-SLM | Gender and participatory innovation development in Uganda. |

\(^{12}\) Details on research focus depended on available information.
CHAPTER 3. THEORETICAL FRAMEWORK

In this chapter a literature review is presented on the theoretical concepts used in this research project. The theoretical framework consists of two sections. In the first section, the focus will be on the theory behind participatory methodology and the rise of the ‘innovation systems concept’ within agricultural research and development (ARD). ARD has gone through major changes over the last decades and what followed was a substantial amount of scientific literature describing the evolving approaches. The approach used in the SCI-SLM project and this research is bottom-up and participatory; a result of decennia of methodological development in which fieldwork has played an increasingly important role. Where the methodology chapter (4) will elaborate on the field study methods and its details, here the historical timeline of ARD approaches, up until current trends, is discussed.

The second section discusses the concept and relevance of farmer innovation and social innovation within sustainable land management in particular. In section 3.2 the working definition of social innovation will also be presented to create a common understanding of this term, being the focal point of the research project.

3.1 Agricultural research and development

“\textit{The reversal of learning requires that scientists start by systematically learning from farmers, with transfer of technology from farmer to scientist as a basic and continuous process. The reversal in location requires that R and D take place on-farm and with-farmer, with research stations and laboratories in a referral and consultancy role.}”

Chambers and Ghildyal, 1985 : 22

3.1.1 Agricultural research and development: paradigm changes

Particularly from the 1980s onwards, significant changes have been made in agricultural research and development (ARD) (Thrupp, 1989; Rivera and Sulaiman, 2010). These changes can be characterised in certain paradigm-shifts, a way of thinking about or approaching issues at hand. From the ‘top-down’ approach used until the 1970s, now the language of participatory methodology is widely spoken within ARD and public and private sectors concerned with agricultural development (FARA, 2006; UNCTAD, 2010). In the table below, an overview is

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13 The theory presented in section 2.1 is derived from a paper written by E. van de Ven (2011), titled “Knowledge talks, Wisdom listens: towards an ‘innovation systems’ paradigm within agricultural research and development in sub-Saharan Africa”. The paper was written during the course ‘Sustainable Land Management’ (given by W. Critchley), partly as a preparation for this research project.
presented of the evolution of approaches (with corresponding methodologies and objectives) of agricultural research since 1900 until the present (UNCTAD, 2010: 66).

Table 4. Evolution of approaches to agricultural research (UNCTAD, 2010)

<table>
<thead>
<tr>
<th>Period</th>
<th>Methodology</th>
<th>Objective</th>
<th>Result</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1900–1970</td>
<td>Researchers conducted on-station experiments and passed on technology recommendations to extension departments, and thence to farmers.</td>
<td>To produce technologies for farmers.</td>
<td>Worked well for large-scale commercial agriculture, but not for smallholder farmers.</td>
<td>The technologies passed on did not address the specific needs and circumstances of smallholder farmers.</td>
</tr>
<tr>
<td>1970–1990</td>
<td>Emphasis shifted from the research station to farmers' fields. Experiments were conducted mostly on smallholder terms.</td>
<td>To produce more relevant technologies with higher adoption rates.</td>
<td>Relevant problems that farmers faced were identified.</td>
<td>Researchers still control the R&amp;D process.</td>
</tr>
<tr>
<td>1990–present</td>
<td>Farmers and other stakeholders involved at all stages of research.</td>
<td>Problem identification, planning and design of experiments and dissemination.</td>
<td>Farmers acquire a sense of ownership.</td>
<td>Improved dissemination of technologies.</td>
</tr>
</tbody>
</table>

Around the 1970s an important shift was made by acknowledging that local or ‘indigenous’ knowledge is valuable in agricultural research and development. From that time, more attention was also paid to local (smallholder) farmers’ challenges and the specific circumstances they find themselves in. From the 1990s onwards, participatory projects gave increasingly more attention to local knowledge, in combination with conventional Western science (Thrupp, 1989: 13-14). Early discussions of local knowledge by Western scientists were loaded with derogatory views, characterizing poor farmers’ traditions and practices as ‘backward’, inferior and were said to be based on myths or ignorance (Chambers and Ghildyal, 1985: 6; Thrupp, 1989: 14). Western scientists would assume that native peoples are ignorant, and were eager to replace the ‘inefficient’ local methods by new foreign ‘efficient’ technologies (ibid). This was the general view during the colonial times in Africa, up until the late 1970s. Nowadays, these views are close to extinction recognizing that “… rural people in many developing countries have a rich understanding of their resources and often are adept at experimenting and adapting to changes over time” (Thrupp, 1989: 13).

3.1.2 Farmer-first-and-last

Not only in scientific terms but within development organisations, governmental and non-governmental institutions as well, the so-called “top-down” or “transfer of technology” (TOT) model has been largely criticised. Although the model has brought certain improvements – since from TOT, feedbacks were received to improve ARD – it has largely been disappointing. Particularly for resource poor and smallholder farmers, a move away from the TOT approach has brought great changes. Chambers and Ghildyal (1985) write in this respect about the farmer-first-and-last (FFL) model, which entails a fundamental reversal of learning and location in
agricultural development. Instead of working on research stations, in the FFL model on-farm research is proposed. With FFL, learning does not start with scientists and their perceptions and priorities, but it starts with resource poor farmer (RPF) families, their resources, needs and problems (ibid: 13), and this is also exactly where the farming systems research ends: with the farmers. These ‘farmer-friendly’ approaches became more popular towards the 1990s, and after the ‘Farmer First workshop’ held in the United Kingdom in 1987, a marker had been set down for farmer participation in ARD (Critchley, 2010: 1).

3.1.3 Linking people: development of the agricultural innovation system

Not only the farmer has been increasingly recognized since then, but linking local people and their abilities (skills and knowledge) to other actors in the agricultural arena gained ground as well, from grassroots to national and international organizations. Over roughly the three periods 1960s- end 1980s, 1990s-2000s the 2000s-now, another development in frameworks can be distinguished, in the light of knowledge use and innovation in the agricultural sector (see table 2).

Table 5. The main characteristics of the three main frameworks used in promoting and investing knowledge in agriculture sector (Rajalahti, 2009)

<table>
<thead>
<tr>
<th>Defining feature</th>
<th>NARS</th>
<th>AKIS</th>
<th>AIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actors</td>
<td>Research organizations</td>
<td>Farmer, research, extension and education</td>
<td>Wide spectrum of actors</td>
</tr>
<tr>
<td>Outcome</td>
<td>Technology invention and technology transfer</td>
<td>Technology adoption and innovation</td>
<td>Different types of innovation</td>
</tr>
<tr>
<td>Organizing principle</td>
<td>Using science to create new technologies</td>
<td>Accessing agricultural knowledge</td>
<td>New uses of knowledge for social and economic change</td>
</tr>
<tr>
<td>Mechanism for innovation</td>
<td>Technology transfers</td>
<td>Knowledge and information exchanges</td>
<td>Interaction and innovation among stakeholders</td>
</tr>
<tr>
<td>Role of policy</td>
<td>Resource allocation, priority setting</td>
<td>Linking research, extension and education</td>
<td>Enabling innovation</td>
</tr>
<tr>
<td>Nature of capacity strengthening</td>
<td>Strengthening infrastructure and human resources</td>
<td>Strengthening communication between actors in rural areas</td>
<td>Strengthening interactions between all actors; creating an enabling environment</td>
</tr>
</tbody>
</table>

NARS: National Agricultural Research System; AKIS: Agricultural Knowledge Information Systems; AIS: Agricultural Innovations System

The ‘national agricultural research systems’ (NARS) concept guided the linear model, as used throughout the 1980s and before. This model was “… used to argue for the need to strengthen national agricultural research systems” and “… investments focused on strengthening research supply by providing infrastructure, capacity, management, and policy support at the national level” (Rajalahti, 2009: unnumbered). In the later 1980s and since the 1990s, the ‘agricultural
knowledge information systems’ (AKIS) concept emerged, which brought the TOT partly to an end. It was recognized that information does not have to be ‘pipelined’ in one direction, and communication and linkage mechanisms between stakeholders were strengthened to extend agricultural knowledge between different actors.

The currently predominate concept of ‘agricultural innovations systems’ (AIS) developed in the early 2000s. AIS guides the approach to planning knowledge production and use. The concept not only builds on the NARS and AKIS concepts, “… but goes beyond this to take notice of the additional features needed for actors to collaborate and respond to needs (such as professional skills, incentives for partnerships, better knowledge flow, etc.) and the wider enabling factors that must be put into place for actors to innovate” (Rajalahti, 2009: no page). Since the acknowledgement that an innovation process does not have to start with research but that an innovation system is multidirectional, and opens opportunities for developing feedback loops (thereby enhancing competence building, learning and adaptation) (World Bank, 2007: 14), the approach to ARD has been ‘creolized’ since AIS, so to say. In this new context, different stakeholders come together, and all speak different (technical/developmental) ‘languages’. The skill here is to work from the bottom-up, and start where the real problems are apparent: on-farm and as perceived by the farmers. To communicate this to higher levels of governance is not an easy job but at least this is recognized with AIS: that is an important first step.

With the emergence of the AIS concept, innovation and knowledge have been more and more recognized for their value in ARD. The ‘innovation system’ concept has appreciated not only technical, concrete innovations in agriculture, but ecological, socio-economic, political and institutional innovations on local and higher levels have been important as well. These last two are particularly important for enabling the innovation process: “Policy should thus focus on creating enabling conditions for the spontaneous emergence of such [collaborative, innovative] networks rather than on blueprint designs” (Daane, 2010: 77).

**Changing roles for researchers and farmers**

Participatory research and extension play an important role in the current agricultural development process by including the local people and their needs, since they are the ones that are directly affected. In this view, local people are part of the solution and not an obstacle to it (Wongtschowski et al., 2010). Changing roles in the agricultural/SLM development process can be observed, from the TOT model, towards interactive, participatory methodology (1990s onwards) wherein relevant local stakeholders and their ideas and knowledge are included (see figure 1 below) (SCI-SLM, 2009: 10). The evolving roles of the researcher, extension agent and
farmer and the communication flows are depicted in the figure below.

(R = researchers, E = extensionists, F = farmers)

*Figure 7. Changing roles of players in the agricultural / SLM development process (SCI-SLM, 2009)*

**Concluding**

The introduction of more on-farm research methods brought with it an appreciation of local knowledge, knowledge that has been there and evolved since the time agriculture began. The Agriculture Innovation Systems approach (as explained above) emphasizes that different actors in the agricultural arena need to learn from each other and work together so knowledge will be hybridised, enabling an environment of innovativeness. Currently in the agricultural sector ‘sustainable land management’ (SLM) is the most often used term to refer to the “new approach” of which participatory (on-farm) research and extension, and a focus on small-scale agriculture as the ‘engine of growth’ are part. Sustainable land management does not only include (sustainable) technologies to improve agriculture, but also takes into account “…policies and activities aimed at integrating socio-economic principles with environmental concerns” (FAO, 1993: chapter 1, unnumbered). Productivity, security, protection (of land and its ecosystem services), economic viability and social acceptability are the five objectives of SLM. Local innovations often fit well into the objectives of SLM, since they are designed within local circumstances and by the people affected, with little available resources at hand. The growing acknowledgement and meaning of local innovations in sustainable land management will be discussed into more detail in the following section.

3.2 Theory regarding the concept of farmer innovation

In this second section of the theoretical framework, the discussion addresses what innovation in sustainable land management actually means. Farmer innovations can be technical or social, as we will see in this section. The latter has effectively been “running behind” since the prevailing focus of conventional agricultural research was on the technical aspects of land management. This thesis concentrates on social innovation and its role in land-based communities’ development. Before discussing the concept of social innovation, first the terms innovation and farmer innovation are briefly introduced.
3.2.1 Innovation
Innovations are crucial to development and are as old as mankind itself, learning from our history. Creativity has been the *sine qua non* in this process. Innovations and the underlying creative mind have proved to be essential to the global community and its survival. Moreover, where there are few (financial or material) resources, people and their creative thinking have showed to be a great resource. A personal experience on a market in Kampala, capital of Uganda, serves as a small example that even the simplest innovations can secure one man’s income, demonstrating the link between innovativeness and poverty (figure 8).

*Figure 8. A technical innovation: sharpening knives on the market, using an old bike*

Innovation implies the creation or generation of new ideas, products or methods (Oxford, 2011) but also involves “... the application of existing ideas in new ways or to new fields” (Torjman and Leviten-Reid, 2003: 4). Innovation is often conceptualized as a process of solving problems and is enhanced through i.) social exchange and ii.) on-going learning, searching and exploring (Torjman and Leviten-Reid, 2003). As we learned from the previous section of this chapter, innovation processes have been crucial to the agricultural research and development sector; changing the way we look at research systems and how it enhances on-the-ground development. Innovation in the agricultural field is defined below by some of its major characteristics.

3.2.2 Agricultural innovation
Adapted from the World Bank’s 2007 publication ‘Enhancing Agricultural Innovation’ (executive summary: p. xvii), some major characteristics of innovation in the agricultural field are listed, and apply to the theoretical context of this research project:

- Innovation is the application of knowledge of all types to achieve desired social and economic [and environmental] outcomes.
- Often innovation combines technical, organizational, and other sorts of changes.
- Innovation is the process by which organizations [i.e. communities / group] master and implement the design and production of goods and services that are new to them, irrespective of whether they are new to their competitors, their country, or the world.
- Innovation comprises radical and many small improvements and continuous process of upgrading.
- Innovation can be triggered in many ways.

In addition to this, Critchley (2007) illustrates that innovation in agriculture has not just one source. Different institutes, organisations and people can bring about agricultural innovation (see figure below).
Local farmers’ innovations are at the core of this study, and in the following section we will have a closer look at the meaning of ‘farmer innovation’.

3.2.3 Farmer Innovation

Farmer (or local) innovation is “the development of systems that are new – in local terms – by farmers using their own creativity” (Critchley, 2007: 13). The terms used in this definition are clarified below (ibid):

- **systems**: technical products or processes, or social innovation (involving new institutional arrangements);
- **new**: within the last 25 years;
- **local**: needs agreement (left quite loose here);
- **farmers**: including crop and livestock farmers (rural and urban), fisherfolk – groups and individuals.

The SCI-SLM project which was introduced in section 2.4.3, presents additional requirements for a community innovation:

- Developed with little or no help/or money from outside;
- Potential to spread (SCI-SLM, 2009).

In this project the requirements refer to community, rather than farmer initiatives (innovation and initiative are used interchangeably). This has been explained before as well, since the project of SCI-SLM looks at farmer communities, rather than individual innovators, reaching out to more people.

The two former definitions taken together, forms the definition of farmer innovation in the context of this study, where the SCI-SLM requirements are part of:

The development of systems that are new in local terms, developed by a farmer/community using their own creativity and with little or no help (financial/knowledge/materials) from outside, which have the potential to spread.

From former programmes that recognized the added value of farmer innovation, it is learned that local knowledge definitely brings positive developments but should not be seen as the
ultimate answer to land degradation problems. The implication of what Critchley (2007) writes is that farmer innovation is not a silver bullet solution and that it has its limitations. He also suggests that innovation means renewal, which is a neutral term: things do not necessarily get better. Therefore in the field, innovations must be carefully selected on appropriateness, asking: does this enhance sustainable land management (ibid)? Farmers or communities must of course also be willing to share their innovation(s), if they are appropriate for dissemination in the first place. Intellectual property rights and ‘ownership’ must be taken into account as well: are we stealing or sharing? Recognising, respecting and rewarding innovators and innovative communities is therefore crucial as well as assisting them to develop further and linking them with other actors in the agricultural arena (Critchley, 2007; pers.comm: Muwaya, 07-04-2011).

Technical and other types of innovation
So far, mainly technical innovations have been identified amongst farmer innovators and have been documented within several programmes, such as PROLINNOVA and PFI (UNDP, 2001: 8). Since agricultural research engages mainly in technical aspects of land management, this type of farmer innovation has been on the foreground. Examples of technical farmer innovations are various, encompassing: development of organic pesticides, water harvesting systems, recycling of materials, etc. (Critchley, 2007).

To be distinguished from technical innovation, there is ‘social innovation’ or ‘community innovation’ (used interchangeably). This sort of innovation has been less on the foreground within agricultural research, since it is not something that can be observed with the naked eye directly. It is intangible, unlike a technical innovation. One needs to spend more time in the field to be able and observe patterns of social organisation, and notice the ‘invisible glue’ that keeps people together in a group, to work on collectively encountered challenges. Although this sort of innovation has been documented less in the past (compared to technical innovation), it has been identified as a relevant part of farmer innovation, through fieldwork research (Critchley, 2007). Within the SCI-SLM project, these two kinds of innovation of equal importance and are both looked for amongst farmer communities.

3.2.4 Social innovation

Social innovation in contemporary society
Social innovation is not a new concept. It is actually a ‘hot’ term these days, especially in the public and business sector but also in the scientific and non-profit arena (Edgington, 2011). People have always been trying to change for the better, coming up with new ideas. This is done in small communities but also in big, formal organisations. Social innovation can be seen as a
process wherein the purpose is to solve social problems (Mulgan, 2007). Mulgan mentions: “Very
diverse fields are becoming interested in social innovation. They include the fields of:

- Social entrepreneurship
- Design
- Technology
- Public policy
- Cities and urban development
- Social movements
- Community Development” (2007: 6)

Social innovation has become a true buzzword in all kinds of sectors, although the meaning of it
depends strongly on the field of work. Generally, social innovation is about changing institutions,
approaches, or systems in order to change the status quo; creating a new way forward
(Edgington, 2011). Nowadays, social innovation is often mentioned in the same breath as
sustainable development. Especially in the business sector, commitment to the ‘social good’ or
including corporate social responsibility in the organisation’s standards is obtained by processes
of social innovation. Since in this thesis we are discussing topics such as rural development and
land management, the definition of social innovation is naturally adjusted to this context.

Innovative communities
In the book “Innovative Communities”, Velasquez et al. (2005) demonstrates the importance of
looking at the community level to trace back today’s environmental problems. The community’s
lifestyles, choices, values and behaviour are important, because these determine the way in
which a group of people addresses environmental, political, or social issues. The creation of a
sustainable society cannot be achieved without active involvement at the local community level,
according to Agenda 21 (Earth Summit 1992), and these authors (Velasquez et al., 2005).
Innovation and change is therefore crucial. Velasquez et al. define an innovative community as:
“a group of people who are able to bring about change and innovation in order to establish a
sustainable society. They are willing to take unconventional approaches, often making (...) changes in people’s attitudes, perceptions, mindsets, roles and behaviour, as well as developing
new ethoses, cultures, institutions and governance structures” (2005: 5).

Social innovation, social processes and resource management
The approach in agricultural research and development wherein social or institutional
reorganisation amongst farmer communities is included in describing the aspects of sustainable
land management, as is aimed at within SCI-SLM, is still underdeveloped (pers. comm. W.
Critchley, February 2011). The recognition, acknowledgement and articulation of social (farmer) innovation in the (more technical) sector of agriculture is therefore a subject that must become more self-evident in land management and research hereof. Topics such as collective action, social learning processes and community involvement or co-management and their relevance have been included in environmental management since it became integral to a wide range of community, professional and government activities, starting 50 years ago (Keen et al., 2005). Various social and also political and economic aspects have been discussed in the agricultural (research and development) arena, and their relevance has been put on the map: from land tenure to gender issues, conflict resolution, farmer cooperation, collective action, marketing, and so forth: agricultural research and development, with an emphasis on developments in developing countries, has certainly been discussed in non-technical terms as well in (scientific) literature. Many of these non-technical aspects of land management, as observed will be part of what is here termed social innovation.

So, what is certainly not new, like farmer innovation in general, are the social processes that are identified within land-based communities and termed as social innovation (see definition below); these have even been there since agriculture began developing (pers. comm.: Critchley and Muwaya, April 2011): people have always been adjusting to new circumstances, surely when their survival was at stake. These processes have been described in former research on natural resource management, and have proven to be pivotal for fighting environmental degradation and building a sustainable society; sustainable land management is therefore no exception and takes into account the social changes that affect environmental management. Within this research context, all forms of (spontaneously/ or locally created) reorganisation efforts within land-based communities fall under ‘social innovation’ (when conforming with the working definition used here and SCI-SLM standards for a farmer innovation).

In Critchley’s practical guide “Working with Farmer Innovators” (2007), social innovation is mentioned as part of farmer innovation in SLM that must not be forgotten – which has been the case in former projects or programmes – when looking for innovation amongst farmers or farmer communities. Social innovation is defined in this booklet as “new forms of institutional arrangements to improve agriculture and the environment” and is often characterised “... by common interest groups, led by a small group (sometimes just an individual) with charisma and magnetic qualities that attract people to act together” (ibid: 7).

**Defining social innovation as part of sustainable land management (under SCI-SLM)**
In the context of this research, the **definition of social innovation** has been adjusted and elaborated, serving as the working definition during the fieldwork:

*The process of creating or renewing systems of social order and cooperation which govern the behaviour of a set of individuals within a given human community with the aim to improve agriculture and the environment and strengthen livelihoods.*

Wherein the following terms are specified:

**Systems of social order** Historically developed ideas, beliefs, and patterns of conduct which evolved in a culture, guiding human conduct and the management of group activities.

**Cooperation** Common effort of a group towards a shared goal, gaining mutual benefits.

**Human community** “A group of people who are involved in collective action in a specific geographical location” (Velasquez et al. 2005: 3). What links them is their sharing of common local environmental issues and collective action towards solving these issues.

**Livelihood** Comprises the capabilities, assets (stores, resources, claims and access) and activities required for a means of living (Chambers and Conway, 1991).

One could say that social innovation (as defined in this context) comes down to (re-)organising people in a group, making collective rules and appointing the group members particular functions, with the goal to improve something or solve a problem, or multiple problems simultaneously.

Within this definition, the requirements of SCI-SLM are not included but should be taken into account when looking for a ‘good’ (= sustainable) social innovation in sustainable land management. Repeated here, the innovation must be:

i.) new in local terms;

ii.) developed by the local community/group;

iii.) with no /little help (or money) from outside;

iv.) and preferably, having potential for spread.
Social innovation in sustainable land management often is accomplished through the formation of farmer groups, or people that informally support each other and share things (from materials to knowledge). In these formal or informal farmer groups, people exchange information about their knowledge on land management, they can work on collectively-owned land and share the benefits, or multiple goals are pursued in the group that include, next to environmental objectives, also developmental or economic goals such as creating women’s (self-help) groups or setting up a farming enterprise.

Velasquez et al. (2005: 47) add that the attributes of an innovative environment ultimately come down to a few features:
- taking measured risks,
- widespread leadership,
- a sense of going somewhere,
- having the strength to go beyond the political cycle,
- and crucially, being strategically principled and tactically flexible, as well as recognizing the resources that come from a community’s history and talents.

Use of local capital

Since we are discussing poor, rural communities in this study who have limited access to financial and material resources, it is valuable to think about the use of other capital which the communities make use of to create a socially innovative environment. Capital is the “...stock” of assets that a community considers to be valuable, which can be drawn upon in the form of “revenue” to sustain and enhance life (Velasquez et al., 2005: 55). Different forms of capital such as the following are relevant and commonly utilised to instigate innovation amongst communities:

Table 6. Different forms of capital (adapted from Velasquez et al., 2005: 55)

<table>
<thead>
<tr>
<th>Capital Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creative capital</td>
<td>The capacity to identify, nurture, attract, mobilize and sustain talent, ideas and potential.</td>
</tr>
<tr>
<td>Environmental/natural capital</td>
<td>The built and natural landscape and the ecological diversity of an area.</td>
</tr>
<tr>
<td>Intellectual capital</td>
<td>The ideas and innovative potential of a community.</td>
</tr>
<tr>
<td>Cultural capital</td>
<td>The heritage, memories, creative activities, dreams and aspirations of a place.</td>
</tr>
<tr>
<td>Human capital</td>
<td>Whose currency is talent, imagination, intelligence and the skills and special knowledge of their people.</td>
</tr>
</tbody>
</table>
Social capital

The complex web of relationships between the organizations, communities and interest groups that make up civil society and whose currency is trust, reciprocity, connectedness and networks.

Theory about social innovation in the field of agricultural research and development, or any (environmental) sustainable development field, is still very much in progress. This is why there is not a lot of theoretical literature available yet on this subject. Part of the research objective is to contribute to the evolving methods used in the field, to identify and analyse the added value of social innovation in sustainable land management. Social innovation is part of the development discourse of project SCI-SLM, and with this research project it is endeavoured to refine this theory, and contribute to the discourse.

Figure 10. SCI-SLM; social innovation as part of sustainable land management

Sustainable land management meets social innovation

The intersection of social innovation within sustainable land management (SLM), is where SCI-SLM is active (amongst other things). By including social innovation in SLM, the value and power of local community’s cooperative, spontaneous solutions to land degradation and its impacts on livelihood development is included, which has often been overlooked in ARD. An important part of social innovation is empowerment of the people and community development, in this case related to problems (and finding solutions to) problems with land management. Next to social problems, social innovation can have multiple objectives, including economic, environmental but also technical-related subjects. In groups, solutions to commonly encountered problems are shared and people have the ability to support each another. Therefore, social innovation can empower people, or give them a voice, thereby enhancing community livelihoods.
CHAPTER 4. METHODOLOGY

“Experience shows: if scientists cannot recognise the initiatives of resource-poor farmers, if they cannot appreciate the knowledge and reasoning behind the farmers’ informal R&D efforts, if they cannot understand the social settings and motivations of the innovators, then they cannot be effective in engaging in R&D partnerships with rural communities to alleviate poverty, increase food security and seek sustainable development”.

Bayer and Bayer, 2005: 1

This chapter presents an overview of the methodological steps undertaken in the research project. For the purpose of the study, qualitative research was designed in which participatory methodology plays a main role. The components of the methodology are the initial research design, preparatory (literature) studies, the work plan design, an operationalisation framework, fieldwork arrangements and conducting the fieldwork, and finally analysing the data. Concluding this chapter, a reflection is given on the research design and fieldwork, discussing some constraints and limitations.

4.1 Research design

The research project took shape in January 2011. The research location, the project under whose auspices it would be conducted and the exact research topic were discussed between the supervisor and the (student) researcher, and adjusted to the needs of the SCI-SLM project, and interests and skills of the student. The aim of the research was to gain insight into the concept of ‘social innovation’ within sustainable land management amongst Ugandan (innovative) land-based communities, to observe evidence of its existence, evaluating the form it takes and whether it has an on-the-ground impact. The reason this subject was chosen was because it fitted the researcher’s background and wish to execute an in-field research. Moreover, there was the need by SCI-SLM for more information, coming from the field, on this particular topic. So, demand and supply met and a research idea was born.

The provisional research question (in March 2011) following this aim was “Is there evidence of social innovation within land management in Uganda; what form does it take and what are its impacts?” This research question was refined during the fieldwork and analysis/reflection process; the final central question of the research is presented in chapter one (see section 1.3). The methodology of this study was mainly determined by the SCI-SLM project’s field activities steps, which prescribes the use of participatory (farmer innovation) methodology (Critchley, 2007), in which the researcher’s habitual anthropological (qualitative) research methods could
be fitted in. These two methods promptly interweaved, and are discussed in more detail in section 4.4.

4.2 Preparatory (literature) study and planning

The preparation phase consisted of the steps taken before entering the field in Uganda, on April 10th, 2011. It partly consisted of literature research on theory about ‘innovation systems’ in agricultural research and development, about developments around agricultural policy-making in Uganda (consulting scientific and governmental documents), participatory methodology, and learning more about the SCI-SLM project, its methods and higher aims. The results of this preparatory research are presented in chapters 2 and 3 (respectively, context and theory).

Since the research was going to be conducted in collaboration with Ugandans, it was useful to get familiarized with the country’s ‘facts’ and the cultural traits, recent developments and its history. Historical and cultural characteristics are important, in order to be aware of the general norms and values, and to better understand the local circumstances. The natural background was important in this respect as well, doing pre-research on what severe environmental problems are and how they are approached so far, who are involved and why is chosen for the sorts of management currently in use. Many of the answers to questions of this kind are answered in chapter 2. This sort of information was again gathered from scientific articles, governmental reports, non-governmental (development) organisations, and consulting databases from institutions like the United Nations and the World Bank.

Since little information was available about the local circumstances before meeting with the communities, it was difficult to fully prepare and knowing the situation you were getting yourself into, whilst staying with the local communities. To get a better idea, former ERM students’ theses were advised to read (Hagen, 2008; Kranstauber, 2009) and getting in touch with them personally to find out what to expect in rural Uganda, how they went about doing things in the field, and to ask for advice (do’s and don’ts).

Consequently, a work plan was composed to prepare the set up of the research project, presenting the what, where and how’s. In this plan, background information, a provisional timeline of the research project (see annex 2), and research goals, methods and questions were summarised, also serving to inform the (local) supervisors and coordinator of the research project about the research project’s details.
During the preparation phase, contacts in Uganda were made – mainly with MAAIF (Ministry of Agriculture, Animal Industries and Fisheries) – through e-mail communication. Before going ‘up country’ (to visit the communities), these contacts were personally met in Kampala to discuss the research objectives and action plans, together with other involved (governmental) parties. Access to the local communities was made possible and made easier through the Ugandan (MAAIF) contacts; without their support and the introduction to the communities, trust and cooperation would have been much more difficult to achieve.

4.3 Operationalisation framework

On the next page, an operationalisation scheme is presented, framing the research project processes. There are four phases in the research project (RP), namely 1.) background; 2.) preparation; 3.) fieldwork, and 4.) analysis.

4.3.1 Research phases: connecting the dots

The operationalisation framework clarifies the place of each step within the overall research project. The first two phases were described already in the foregoing sections 4.1 and 4.2, serving as the ‘preamble’ to the fieldwork. The ‘results’ under phase 2 (preparation), refer to the literature and institutional review and have been presented in the chapters 2.) Theory and 3.) Research context. After the preparation, the fieldwork (3) and analysis (4) phase follow, of which the components will be explained into detail in the upcoming sections 4.4, 4.5 and 4.6.

The theoretical framework presented in this thesis (see chapter 2) co-guided the concepts used in the fieldwork. The theoretical framework fits in the operationalisation framework since 1.) it provided a first (working) definition of ‘social innovation’ (in preparation phase), and 2.) gave an insight into participatory and qualitative research methods and its main components (fieldwork and analysis phase). Scientific theory was consulted to find what this kind of research consists of, and to which points should be paid particular attention, in order to conduct a valid and reliable research and limiting bias. About this last point, more can be read in the chapter’s last section 4.6 (reflection).
Operationalisation of the Research Project

**Student (researcher) Background**
- BA study: organisational anthropology (social sciences)
- Research methods: qualitative (anthropological)
- Interests: environmental management and (social, sustainable) development

**SCI-SLM Project**
- Encountered via W. Critchley (1st supervisor)
- Research methods: bottom-up approach, participatory
- Interests: farmer innovation, agricultural and sustainable development (balancing economic, social and environmental objectives)

>> Topic of interest for the RP: social innovation within sustainable land management

**Feedback**

**Formulating workplan and research question(s)**

+ Literature + institutional documents study
+ Making contacts in Uganda; financial and housing arrangements, meet with Ugandan SCI-SLM stakeholders

+ Developing relevant interview questions and ‘tactics’

**Results**

Literature and institutional review (see context and theoretical framework):
- SCI-SLM and methods (and role of social innovation)
- ARD progress in Uganda
- Participatory methodology
- Theory on (farmer/social) innovation

Workplan:
- Background information to RP
- Research (sub)question(s)
- Research aims, methodology description, timeline

**Central question: Is there evidence of social innovation within land management? Form? Impacts?**

**Fieldwork steps**
1. Meet community leaders/introduction & make agenda together (with local contact)
2. Find accommodation, appropriate meetings points and people for interviews
3. Fieldwork: observation, find focus group, prepare and do interviews, group get-togethers, fieldwalks, informal talks, attending group meetings, documenting information (see section 4.4)
4. Say goodbye, show gratitude to the visited community.

Throughout all fieldwork steps: **being adaptive & flexible; expecting to adjust certain things, and refining the research design / question**

**Categorise relevant topics + writing thesis**
1. SRI test
   - Sustainable
   - Replicable
   - Inclusive
2. Additional requirements to test social innovation (to find in the field)
   - Progressiveness ... vision ...
   - Empowerment (a voice?) + ...

**Data**
- Community 1
- Community 2

**Reflection**
Is this evidence of a ‘good’ social innovation in SLM?
- Validity?
- Limitations to research?
4.3.2 SCI-SLM fieldwork activities

As part of the fieldwork preparation, the ‘SCI-SLM field activities’ were explained to the researcher by the SCI-SLM technical backstopping team leader, Dr. Critchley. These fieldwork steps are designed by this before-mentioned team (CIS-VU). The framework sets out the basic approach the SCI-SLM project has adopted since its inception, in order to identify, document and eventually disseminate community innovations. The SCI-SLM “field activities” are depicted in figure (11) below.

Figure 11. SCI-SLM field activities (SCI-SLM, 2009)

The ‘SCI-SLM field activities scheme’ served as an initial fieldwork approach in this research project, introducing the steps how to go about selecting distinctive features of social innovation. The gathered information was documented in the SCI-SLM Characterisation forms (A, B and C), for SCI-SLM administration purposes on the community visits. The forms’ lay-out (filled in for the two visited communities) are included in annex 3, and are mentioned in the diagram above as parts of step 3 (form A) and 4 (form B and C). With the help of the district’s agricultural officers these characterisation forms were filled out and afterwards shared with the Uganda national coordinator of SCI-SLM (Mr. Muwaya).

Since in previous field activities the emphasis had been mainly on technical innovations, during preparation the SCI-SLM field activities scheme was adjusted to this research project, adding on the ‘social side’ of community innovation (see the adjustments in red, in the diagram above). More about the ‘evolving’ aspect of the SCI-SLM fieldwork methods, will be discussed in section 6.2.

4.4 Fieldwork

The research is for the largest part based on evidence from the field, where primary data was collected. Two farmer groups were visited for the purpose of this research project. From 11 until 27 April, the first community was visited. This group of farmers call themselves ‘Banyakabungo Twimukye Co-operative Society’, and is located in southern Uganda. In short they are referred to as Banyakabungo (BK). The second fieldtrip was made to the east of the country, from May 7 – 18, where group Balimi Network for Developing Enterprises in Rural Agriculture), in short ‘BANDERA’, is located. The fieldwork was done together with fellow ERM student Olaf Piers. Both of us carried out research under SCI-SLM guidance, and collected our data from the same research samples. We each looked at other aspects of rural, agricultural development. His focus was on farmer-to-farmer learning and analysing the communication media used amongst rural,
innovative small-scale farmers, and the particular role of the mobile phone and radio in the diffusion of local innovations in sustainable land management. Olaf and I collected differentiated sets of data from the research samples, since we each had our own topic of interest. This allowed us to write two different and individual reports.

4.4.1 The study sites
The primary data was collected in two different farmer communities, located in two geographically dispersed regions in Uganda (see figure 12). Each farmer group (or community), their activities and the contextual setting was different. But what they had in common was their presumed innovative character and that they are both within the reach of the “cattle corridor”, or drylands, a crucial land degradation area in Uganda (indicated by the pink area in the figure on the right). Preliminary information about the (innovative) activities in the selected communities was documented in the past under SCI-SLM. More communities have been identified under the project as being ‘innovative’ within Uganda. More information about the SCI-SLM selection process is presented below in box 5.

Figure 12. Location of the two study sites in Uganda

Box 5. SCI-SLM ‘Hunting Analogy’: selecting innovative communities
Mr. Lwakuba, the former SCI-SLM national coordinator (he is now followed-up by Mr. Muwaya) was interviewed in Kampala (May 5th, 2011) about the selection procedures of SCI-SLM. He explained that the selection objectives of SCI-SLM are 1.) to target innovativeness, be it technical or social and 2.) to target communities, not individual farmers. The term he used to explain the selection procedure was ‘the hunting analogy’. The geographical focus of the project is the drylands of Uganda. This is the general ‘hunting ground’. Within this area, ‘innovativeness’ (as defined by SCI-SLM) amongst farmer communities is searched for with the help of an informal network, such as district agricultural and local extension officers. The communities that seem to be innovative at first sight then go through another selection process, this mechanism can be visualised as a funnel: the presumably innovative communities are more closely examined and the ones that are truly innovative, meeting certain SCI-SLM requirements and definitions (see section SCI-SLM, 2.4.3) will be selected and worked with.

Although the two communities show conformities in their innovative character and location in the drylands, their challenges relating to land management are quite different. The first visited community ‘Banyakabungo’ is located in the south-western Ntungamo district, not far from the border with Rwanda and Tanzania. The group of farmers united in Banyakabungo Co-operative
Society manage their cattle on a collectively owned stretch of land. This land, 186 hectares in total, is found in a hilly landscape, where the problem of overgrazing, and consequently a decline in the carrying capacity of the land (and therefore low productivity) is quite common (MAAIF 2007). The area is well known for its rangelands, where cattle grazes up into the higher-lying parts of the hills (pers. comm.: S. Muwaya, 10-04-2011). The study site is located in the ‘Ankole sub-region’, named after the Ankole (long horned) cow that is indigenous to the country (Petersen et al., 2003). Ntungamo district lies in a region where rainfall averages about 900 mm per year (UBOS, 2002; UBOS Stat., 2011). When the research was carried out, it was rain season (April - March), and the environment therefore looked quite green. Swamp land bordered the Banyakabungo land, where trees are grown and space is made for a shamba (cultivated plot).

The second visited group, BANDERA 2000, is found in central-east Kamuli district, not far from the source of the river Nile. At the time of the visit, BANDERA 2000 no longer owned a piece of land as a group anymore but the members chose to support each other nevertheless, while working on their individual plots. The group members grew many different things on their land, from coffee to mangoes. Growing fruits was once the focus of the group, so the members could collectively sell their products on the market. At the time of the research, no specific crop was really standing out, and preferred crops differed highly among the members. Most of the farmers would cultivate mainly for subsistence and partly for commercial purposes but this also differentiated from farmer to farmer, depending on how much land or capital they owned. Rainfall is scarcer in this region of Uganda, compared to the situation in the first community in the southwest. Furthermore, the temperature is on average a bit higher here, and the land has a slightly hilly topography. At the time of the research, rain season was just ending. For the full community characteristics see chapter five. The dissimilarities in topographical and climatic features and farming systems of the two communities allowed for the research to look at the concept of ‘innovativeness’ amongst farmer communities with different challenges related to land management, making the project more diverse and interesting.

Important for the research project was that both groups were willing to host student researchers of SCI-SLM for a longer period of time, and to cooperate in the fieldwork; to interact about the community’s challenges and solutions relating to land management. Both Banyakabungo and BANDERA 2000 could offer the researchers a nearby accommodation during the fieldwork that made close interaction possible. The aspect of community cooperation was crucial since without the interest of the community in participating in this kind of research, no successful research could have been conducted.
4.4.2 Research samples

In order to decide on the research sample\textsuperscript{14} and size and who it would or should consist of, first some start-up time was needed to observe the environment and see what kind of organisational structure or hierarchy existed in the group. Since the research topic of social innovation implies looking at the social order of the community, the roles and functions of the group members needed to be analysed, asking: who is important in the group and who makes the decisions? By the time of introduction to both communities, the leaders or prominent people (often the seniors) of the group were talked to. They communicated with us about the community’s activities and they were the first persons through which we got acquainted with the study site.

During the first days of the fieldwork and getting to know the people better, a circle of people built up around us with whom we worked the most. From there it was decided who could be approached in the group (and is open to sharing information), and how many people could be talked to, or visited within the available time span. This was dependent on the extent to which people wanted to co-operate and make time for us, and was highly differentiated between the first and second research study site. Some people were keener than others to talk to the researchers, and it turned out that it was highly dependent on the group members you initially get to know, how the circle of participants in the research (from who you collect data) expands (more on this issue can be read in section 4.6).

Within both communities a core of leaders was established, and are brought together in – and are supported by – an executive committee. The leaders were often also the instigators of change, or have been part of the group since the assumed innovation. Mainly these ‘community innovators’ and their supporting committee turned out to be the first targets of data collection. Through the group leaders, other group members were put forward to come and meet with us, or they would approach us by themselves after hearing about our presence.

The table below presents a list of research participants in both communities: these only count the people that have been interviewed (some multiple times), and are officially recorded (the whole interview is noted down). There is a differentiation in what they mean to the group: are they 1. (seen as) a leader or part of the executive committee; 2. are they ‘normal’ group members, or 3. other (non-group member): can be an agricultural officer, extension worker or local government person, which is in some way connected to or working together with the particular community. The obvious differentiation in participants between group 1 and 2 can be explained and is discussed in more detail in section 4.6. I endeavoured to speak with a variety of

\textsuperscript{14} Research sample: a group of people (a part of the total group population) representing the whole study entity.
group members (quality chosen over quantity), and having multiple conversations with some key informants, which were often leader figures in the group. This approach was chosen because this way there was more trust between the interviewee in the student researcher, and deeper conversations could develop. It was strongly attempted to include as many women as men of different age classes in the research, in order to represent their different perspectives. Unfortunately, owing to the culturally determined household systems and embedded daily routines (and other constraints, see section 4.6), this sometimes proved to be a burdensome task.

Table 7. The participants in the research project

<table>
<thead>
<tr>
<th>Study site</th>
<th>BANYAKABUNGO</th>
<th>BANDERA 2000</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Women</td>
<td>Men</td>
</tr>
<tr>
<td>Leaders/Executive Committee members</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Group members</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>1</td>
<td>6</td>
</tr>
</tbody>
</table>
4.4.3 Qualitative and participatory research

Doing research while standing close to the topic and the people concerned is at the core of qualitative research and a sine qua non of participatory research methods. It aims to systematically understand people’s real, everyday experiences and challenges observed in their natural setting. These applied research methods will be elaborated on in this section. Furthermore, the features and tools of the fieldwork methodology are discussed.

Qualitative Research

Qualitative research has its origin in the social, and particularly anthropological scientific corner. This type of scientific research seeks to “... understand a given research problem or topic from the perspectives of the local population it involves. Qualitative research is especially effective in obtaining culturally specific information (“the intangible factors”) about the values, opinions, behaviours, and social contexts of particular populations” (Mack et al.: FHI, 2005: 1). The kind of approach that qualitative research offers, has been spreading and growing in use throughout multiple scientific disciplines, from business to biology, and has definitely settled in the environmental sciences. It has proved to contribute to finding answers to complex, society-embedded questions, and providing a holistic understanding. With the main features of qualitative research in mind, the participatory in-field tools were applied in this study. Some of these features are summarized below.

Table 8. Features of qualitative research (adapted from Rossman and Rallis, 2003)

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. It takes place in the real, natural world</td>
<td>No artificial settings. Qualitative researchers go to the people.</td>
</tr>
<tr>
<td>2. Uses multiple methods, primary techniques</td>
<td>Interview, observation, gathering documents. Interactive, ‘everydayness’,</td>
</tr>
<tr>
<td></td>
<td>humanistic. Data is produced in words and images rather than numbers.</td>
</tr>
<tr>
<td>3. Focus on context: context is integral to</td>
<td>Describing a particular social process. Value the ‘messiness’ of the lived</td>
</tr>
<tr>
<td></td>
<td>world.</td>
</tr>
<tr>
<td>4. The researcher systematically reflects on</td>
<td>How the researcher affects the ongoing flow of everyday life. Acknowledge</td>
</tr>
<tr>
<td></td>
<td>that the research subject is affected by the researcher’s presence.</td>
</tr>
<tr>
<td>5. Being sensitive to personal biography</td>
<td>The researcher is biased by its frames of the mind.</td>
</tr>
<tr>
<td></td>
<td>(perception).</td>
</tr>
<tr>
<td>6. Complex reasoning, inductive logic:</td>
<td>From the particular to more general statements to theory. Using a flexible</td>
</tr>
<tr>
<td></td>
<td>framework that focuses and shapes the in-field actions.</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
7. It is a multifaceted and iterative research: describing a holistic view of the social world.
   - Moving back and forth between the parts and the whole.

8. Fundamentally interpretive character (learning through the lens of the researcher)
   - Focus on description, analysis, and interpretation; no laboratory control

9. There is no a priori framework (and no formal hypotheses) about the social world.
   - Learn what constitutes important questions from the participants themselves.

10. Adaptation.
    - What makes sense for the setting, the participants, and the researcher’s growing knowledge about the topic?

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**Participatory research methods**

Research methods, which emphasize local participation, are motivated by pragmatism and concerns of equity, according to Cornwall and Jewkes (1995). It is said to commonly form a central part of community development and various other development sectors, these days (ibid). Indeed, participatory research offers more in many ways: the fieldwork processes for instance include collaboration, mutual education and is based on a mutually respectful partnership between researchers and communities. The results flowing out of participatory research often both have local applicability and are transferable to other communities, which is another benefit.

Different types of participatory methodologies and tools developed over time within agricultural research and development. During the evolution of these methodologies, local knowledge and innovation has been acknowledged increasingly as a valuable source, leading to the development of a particular approach within Participatory Learning and Action (PLA)\(^{15}\): the farmer innovation approach (pers. comm.: Critchley, SLM course: January 2011). The recognition of farmer innovation is important, since farmer innovation on its own is not enough: “otherwise there would be no problems with agricultural development”, according to Critchley (2007: 5). Different features of participatory methodology were applied in the innovation identification process during the fieldwork. In the remainder of this section, these features and the applied tools are explained.

**Feature 1: observation**

These impressions a researcher gains in the field form part of the research data. Topics such as power and equality are not easily observed with the naked eye, but in the smallest gestures

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\(^{15}\) Participatory Learning and Action (PLA) is the he overall term used for ‘P’ methodologies (pers. comm. Critchley, 2011: SCI-SLM course).
observed in society, components of social realities can be discovered. As Silverman pertinently notes: “The way people move, dress, interact and use space is very much a part of how particular social settings are constructed. Observation is the key method for collecting data about such matters” (in Mulhall, 2003: 307). Moreover, an important reason for using observation is to check whether what people say they do matches with what they actually do (Mulhall, 2003). Observation therefore, is also a technique to ‘triangulate’ your information: not just accepting face value but taking more aspects into account. Besides this, observational methods:

- provide insight into interactions between dyads and groups;
- illustrate the whole picture;
- captures context/process;
- informs about the influence of the physical environment (Mulhall, 2003).

In the end, we actually got to participate in some real ‘in the field work’ with BANDERA on a very hot Saturday, and experience ourselves what farming is about; another valuable observation. This kind of experience makes you understand the people better when they talk about their everyday tasks and – also important – it reflected positively on the relationship between the researcher and the community members.

*Figure 13 and 14. Participatory research literally: “getting our hands dirty”*

**Feature 2: interviews**

Mainly through semi-structured interviews, data was collected from the research samples. Semi-structured interviews allow for focused, conversational communication between the interviewer and interviewee. There is two-way communication, unlike in the ‘questionnaire interview’, where detailed questions are formulated ahead of time and there is one-way communication. An interview that is semi-structured starts with more general questions or topics; the exact questions are not predetermined (FAO, 1990). Per community, the interview questions/topics were different since they had different kinds of land management approaches and innovations.

The general topics of the interviews were:

- Introduction questions (name, age, household tasks and size, main occupation, etc.) and membership to the group?
- The relationship of the interviewee with the community (the position he/she has in the group)
- Contribution to the (changing) organizational character of the community?
- Benefits of group membership to this person?
- Whether he/she is a member of other (developmental/farmer) groups.

Additionally, the topics discussed with the group leaders (in the executive committee), who were
consulted the most, included more factual questions such as how big the group is, how and why it has grown into existence, and how long it has existed. The organizational structure of the group’s executive committee and the role of its members and particularly the chairperson (identified in both communities) were a specific target, since this would tell much about the social innovation’s core.

During the interviews extensive notes were made, or typed down using a small laptop in just a few cases. The use of electronic devices (audio/visual-recording) was minimised and at times simply not possible, because many interviews were done spontaneously in places with no electricity, or the devices would distract the interviewee. Quotes and their own used words in English were written down in order to prevent their expressions from being ‘biased’ by my own interpretation of their linguistic use. Interviews were often connected to farm visits and transect walks. More so in the BANDERA community, interviews were mainly conducted at the farmers’ own homes. In the Banyakabungo community, we would more often meet in public places such as the ‘hotel’ (a place were you can eat) in the nearby trading centre.

**Feature 3: focus groups**

Only in the BANDERA 2000 community, the use of a focus group was successful. In a focus group, several people of the research sample come together, in order to discuss certain topics, together with the researcher. Questions were provided to start up the discussion within the group, and the people were asked to note down the most outstanding observations in the discussion, in their own opinion. The participants in the focus group were invited to add certain discussion points, when they saw the need. Afterwards these notes were shared again in the group. The benefits of a (small) focus group are that group interaction can easily be observed up-close, and it is made possible for the members to share their individual experiences. The formation of small groups also facilitates a safe environment, so that the ‘less heard people’ can speak up as well. The focus group assignments must have a clear purpose in order to function and ideally the focus group is met with multiple times. This was not the case here though, as people lived far away from each other and especially the women (needed in this group) were not often available.

**Participatory Learning and Action tools**

Participatory Learning and Action methodology has quite some tools to offer which can be used in focus group exercises, interviews and during observation.

The tools used during the fieldwork:

- Transect walks
- Participatory mapping (visualisation)
- Historical profiles
Transect walks offer the opportunity to let the people in the community show you what they do, how and where. Farmers guide you through their surroundings and owned land, while they explain. These walks were often done with a key informant (leader) in the community, together with the landowner. Especially in the BANDERA group, consisting of many members with each their own plots, numerous transect walks were done and used many times as an introduction to the farmer and its activities. Afterwards and following the communication during the walk, time could often be made for a short interview with the landowner.

*Figure 15. A transect walk: learning while seeing (with BANDERA 2000)*

Participatory mapping constitutes “maps produced by the group and/or aerial photographs to assist with community land use planning and monitoring changes in land use” (FAO, 1990). Although this research was not about at the technical side of land management or use, drawing up land use (planning) maps helped to structure the people’s stories. For instance when talking about evolutions that land management has gone through, related to social developments in the farmer group (thus, touching upon the topic of social innovation). In the first community, drawing and mapping was used many times in order to clarify answers, especially when the words in English were ‘lost’ and there was no interpreter available.

*Figure 16. Using mapping and drawing to improve communication in an interview (with David Poyarukainge, vice chairman of Banyakabungo)*

Creating visuals of any kind constituted an important part of the fieldwork. Cornwall and Jewkes discuss that visualisations provide “… opportunities for local people to explore, analyse and represent their perspectives in their own terms” (1995: 1671). Moreover, visual literacy is universal, and has the ability to facilitate, rather than replace, discussions. What needs to be kept in mind though, is that “… visualization does not offer a neutral, culture-free language. Interpretations of the diagrams, 'interviewing the maps', play an important part in the process” (ibid).

Historical timelines were created in both communities, and in each case proved to contain important basic facts about the communities’ evolution. This tool documents the history of a community, and can consist of pictures, writing or symbols (FAO, 1990). In both cases, a timetable was established in words, starting in the year the group was formed, and initiatives were taken within that group. While the timetable is created, the people talk ‘around’ what they are writing down. These comments and additions form part of the process of historical mapping,
and provided new insights and entries for the researcher to ask more questions. In both communities a timeline was created by two or more members of the group’s executive committee.  

Figure 17. Historical mapping (BANDERA 2000)

4.5 Data analysis

The collected data was either produced in words (from observations, interviews, group discussions), drawings (visualisations) or pictures, and was stored by making detailed notes on paper, and sometimes (when facilities permitted this) on a mini-laptop. The interviews were analysed with the help of finding keywords in the written-out version of the interviews, in Word. Keywords such as ‘history’, ‘vision’, ‘leadership’ or ‘power’ were searched for in all of the notes in order to pick out interesting comments in the researcher’s notebook, thereby creating order in a somewhat chaotic collection of written data. By ordering the comments under the keywords, different statements of different interviewees could be compared. During interviews, informal talks or discussions, certain striking comments from former interviews would be recalled to ask what this person’s thoughts are about the particular subject. By using this technique, going by the name of ‘triangulation’ (as mentioned before in this chapter), information was checked with others, which offered different views on things. In the analysis, these different views were put together from which conclusions were drawn.

With the help of the timeline the participants had created, chronological order was also brought into the data. This was helpful since in this way, the reorganisation in the group became clear, including the steps taken to get to the renewed organisation. Further, the data was analysed on the SCI-SLM requirements (see chapter 2. Context) for a ‘good’ social innovation and which fits in the SCI-SLM definition; what contains a ‘farmer innovation’ (in this case of social character). In addition, the data was analysed to look for conformities in both communities, if the social innovation can be ‘checked’ on more than the SCI-SLM requirements of a ‘good’ social innovation, thus reconsidering the SCI-SLM methodology (one of the research goals).

4.6 Reflection: Constraints, Barriers and Responsiveness

“The resulting tale of the field is, ultimately, the researcher’s story about the stories people have told her”

Geertz and Van Maanen in Rossman and Rallis, 2003

During fieldwork, things might not go exactly as you planned. Therefore, an adaptive and flexible attitude was needed from the researcher, to handle unexpected situations. After the first week of being in the field it was noticed that next to this, patience and creativity were much needed
skills as well. Moreover, there are a number of things one needs to reflect on during and after the research in order to check the validity of the research. Here, some of the constraints and barriers, reflection points and responsive actions are discussed.

**Constraints and barriers**

The first real constraint in the fieldwork was the language barrier. Not all respondents in the communities had the same language skills in English, creating uncertainties during the interviews. Although English is the national language in Uganda, most rural citizens speak a local language (in the two communities a different language was spoken). Interviews therefore had to be ‘simplified’ at times or an interpreter was used. Since there was not always an interpreter available, some interviews were literally done by drawing and pointing out, and making interviews almost multiple choice. The biased interpretation of the interpreter was noticed at times, since often they have a background in agricultural extension work, translating things to fit their own interpretations of what is really going on. The quality of the answers therefore differed.

The second point is related to who is chosen for the interviews or as a research participant. The people that were met first consisted mainly of the seniors or organizational leaders of the farmer groups. Since they are the contact points and representatives of the community, they provided the first information and entry into the group. These people thus also decided for a large part who the rest of the people would be that you meet within the community. Since it was not obvious who did and did not belong to the group and where they lived (in neither one of the communities the members all lived together in one cluster). Also, these farmers work hard and all day long. They have schedules and you have to build your interviews and plans around this. Sometimes this created difficulties to plan a meeting, especially when they live quite far away from the researcher’s place of residence. The leaders could provide a mediating role here and this was much appreciated, although their planning was not always that reliable, especially so in Banyakabungo.

The third constraint is about time. Firstly, time interpretation is different in Uganda. “In Europe they have the clock, here we have the time”, to illustrate the African relation to time. For instance, morning meetings would be shifted to the end of the day, just because somebody had a family appointment ‘all of the sudden’. Sometimes appointments started later because of people being late, and having to leave again after 30 minutes. Time was also limited regarding the research project; we had planned two - three weeks to collect data in each community. For some of the aspects in the research, even after months of being in the community one would not
know enough since social processes are rather complex and some information you just have no access to, as an outsider. For other aspects, on the other hand, just one week was enough to find answers. So there are certainly boundaries to the research, attributed to the limited time spent with the local people.

Fourth, having to cope with a totally different culture than your own brings along certain challenges. Where you are from partly decides how you see the social world around you and what is normal and not normal for you. This is why you need to pay attention to what you say at times, although it was also learned that is not bad to show who you are and that you are different from these people because you grew up some place else. Religion is for instance a very important part of life amongst Ugandans. Being a Dutch agnostic, this is sometimes difficult to cope with, mainly because in the role as a researcher, you do want to connect with these people to earn their trust. When you tell the people you do not believe, this can already be of an influence to them and whether they want to speak to you or trust you enough. Furthermore, the comfort of your own home is not there. ‘Luxurious’ facilities you are used to, you just have to be able to do without, such as access to the Internet, a comfortable house, and good bed to sleep in. It was going back to basic: living, washing, eating in the rural areas, to which you need to adapt. Most of the time there was electricity available in the accommodation the researchers stayed, which was important to store collected information on the computer and be available via the mobile phone. Many times the mobile phone was used to phone the leaders and make appointments. Without this, things would have been going much more slowly.

A fifth barrier was the weather, having an influence mainly at the start of the research. From endless days with rain, to weeks of heat, and withstanding it while walking for hours. These weather patterns could truly be a barrier to the fieldwork. The first two weeks quite some appointments with community members had to be cancelled because of the heavy rainfall. Furthermore, some people could not show up in the discussion group after it had rained: the land had to be worked on now that there was finally water available again.

Looking more closely at the particular community-bound barriers, some things are important to mention here.

In Banyakabungo these are:
- Difficulty to get access to community members. The leaders of the group expected that their help would be enough for us and did not see the need to put us into contact with more of the group members, although we had asked this favour from them. During a general
meeting with many of the members, we were even asked to leave, at a certain point. A real barrier here was the language, since many members did not speak (sufficient) English, making it almost impossible to connect to members without the leaders’ help. A interpreter was not much available and this definitely was a huge constraint to collecting primary data in the group. When interviews were arranged, this was often done so in public places (meeting in the middle of the respondent’s and researcher’s residence), where there was quite some distraction. No invitations were received to come to their own homes. Finally, the last interviews were therefore done in the more ‘quiet’ home of the researcher.

- Women’s involvement: often the ladies in the community were not the ones the men (of the community) would think of that should be included in the research. Since the community was overall consisting of men, women’s roles have not been able to be researched to the extent the researcher aimed at.

- Commitment and expectations: Especially in the beginning, often the researchers were asked for something in return for the people’s time and answers (money, food). Of course, a small reward is OK but the constant asking for something delayed the research at times since we could not offer them payments. After some more communication, this ‘hindrance’ was removed towards the end of the research. There was also a huge reliance on our knowledge and skills and the expectation that we were going to give them agricultural advice on the spot. These different expectations were at times difficult.

About BANDERA 2000 the following points must be made:

- Women involvement – however, to a much lesser extent than in BK – was an issue here as well. It is simply customary in (rural) Uganda that the men decide, about almost all things that happen within the household. In groups, men are outspoken and do not always give women the chance to speak up.

- The opposite happened in this community, compared to BK: lots of members were mobilised to join in discussions and invited us to their farms. Overall, there were much less barriers to executing a good field research in this community, compared to the first.

- Less research time was needed in this community, because the main leader and the group’s committee were very involved and enthusiastic about the presence of the researchers. The leader, especially, felt honoured to ‘work with us’, making time for us, and inviting but also urging the group members to participate. This had a positive impact on the research.

Reflecting on the researcher’s role

Reflecting on my role as a researcher, some things are important to reflect on. I am a white tall young woman with blond hair, 23 years old at the time. This is a rather unusual ‘look’ in Uganda,
especially in the more remote rural areas that were visited for this research. In Uganda, women in these rural areas overall do not have as much to say as the men, and often choices are made for them. For some farmers therefore, it must have been rather awkward to communicate with me. Indeed, some of the men’s first interest was if I was married yes or no. Fortunately, not all men were so explicit about this and after a while, they would know that the answer was ‘yes’ anyway, and that I was not there to find my future husband and house but to perform a scientific research. On the other hand, I hoped that this also meant that women were more easily approachable for me, which in the end was not really the case, owing to their insufficient knowledge of English and limited mobility.

We (I and Olaf) were also many times expected to present the solutions to their problems with the land, since we are educated and came all the way from Holland to work with them on land management. Unfortunately, this was not our goal in the research and above all, we are not agriculturalists. This needed to be made clear (discretely) over and over again and was often difficult for the people to grasp. The long-term benefits that we talked about instead, did not directly appeal to some of the people.

Finally, interpretation matters. This research is a result of what I have understood from the research participants, and how I interpreted their answers and behaviour. Bias is therefore in fact unavoidable, since through my “lens” I have reproduced their social reality. Nevertheless, I endeavored to be aware of potential bias, and to leave my opinion about things behind when comments were made that were not personally acceptable to me, for instance. After all, to do qualitative research, is to observe and present what is out there, and not what you think should be.

**Responsiveness**

Adaptation to the local circumstances of the study field was fundamental. Not only in the research design things had to be adjusted or refined. Even more so from the researcher, an adaptive attitude is needed, adjusting yourself, as the situation seems fitted. Flexibility and creativity were therefore keywords during the research. To cope with the gap of English knowledge, for instance, when there was no interpreter at hand, was a frequent challenge. Meetings were often held in the most inconvenient places, like right on the farm, sitting on a tree trunk or just somewhere random in the shadow with no facilities whatsoever. On the other hand, this approach fitted the situations at hand, developed naturally, and this way you stayed close to the environment that is studied wherein the respondent feels at home.
Reflecting on the research in general, it is acknowledged that the research has its limitations and shortcomings, on account of different constraints that were met during the field research. When setbacks were encountered, it was attempted to handle the situation as good as possible, and not to throw in the towel when all goes wrong or different as expected. Reflecting on the research period in Uganda, the most important things learned about the researcher’s role are that you have to adapt quickly, always be friendly, learn some local words to impress and win over the hearts of the people and shake everybody’s hand: respecting the local culture is number one. Simple things like this really do make a difference in what you get back from the participants. Next to this, much was learned of course about how to prepare and conduct interviews, to have a sharp focus in the research, not to take everything at face value, and certainly to not set things in stone but rather have a clear directive which is resilient.

Figure 18. “Coping with some distraction”, during an interview with Banyakabungo leaders
CHAPTER 5. FINDINGS

In this chapter the findings of the field research are presented. The Banyakabungo society is treated in section 5.1, the BANDERA 2000 association in 5.2. Per group, the main characteristics and development highlights are described. Subsequently, the groups’ challenges and approaches to address these challenges are presented as well as their future plans. The focus is on cooperation: how people in a group work towards a common goal to improve land management and stimulate socio-economic development. In the next chapter, to what extent these findings can be related to social innovation is discussed, and what impact the initiatives of these groups have on improving sustainable land management, and enhancing local livelihoods.

5.1 Community 1: Banyakabungo Twimukye Cooperative Society

5.1.1 Introduction

The cooperative grazing land management group of Banyakabungo (BK) is located within the “cattle corridor” (described in section 2.3.4) in the Southwest of Uganda. This region is well known for its grazing lands, where overgrazing presents a major problem to production from the land (see section 4.4.1), and thus to the livelihoods of the people.

The name Banyakabungo means ‘many together in Kabungo’, the parish in which the community members live. ‘Twimukye’ stands for ‘growing up’, and is the aim of this cooperative society, according to the group’s vice chairman David Poyarukaoge. It means that the members of BK aim to develop and prosper. Not all members of Banyakabungo live in the same village but are spread over the parish of Kabungo. The main occupation of the group is to look after their cattle, milking, and maintaining the land, trees and crops.

In the table below features of the community are presented. This information was mainly collected from chairperson Richard Mbyemire of Banyakabungo society.
### Table 9. Banyakabungo group characteristics, adapted from SCI-SLM Summary Baseline Data forms A, B and C (all completed forms see annex 3)

<table>
<thead>
<tr>
<th><strong>Community name (full)</strong></th>
<th>Banyakabungo Twimukye Cooperative Society</th>
</tr>
</thead>
<tbody>
<tr>
<td>i. Type of organisation</td>
<td>Communal grazing land management, farmer group</td>
</tr>
<tr>
<td>ii. Organisational structure</td>
<td>Executive committee, cooperative management, voting.</td>
</tr>
<tr>
<td>iii. Started</td>
<td>1997</td>
</tr>
<tr>
<td>iv. Official status</td>
<td>Registered on the district level as a cooperative farming society ltd.</td>
</tr>
<tr>
<td>v. Ownership</td>
<td>186.3 hectares of land, owned collectively.</td>
</tr>
</tbody>
</table>

| **Location**                 | LC1 (village level): Kyondo (location of the communal land) |
|                             | LC2 (parish): Kabungo |
|                             | LC3 (sub-county): Rweikiniro |
|                             | LC4 (county): Ruhaama |
|                             | LC5 (district): Ntungamo |

| **Members**                  | Yes. Right now it is closed for new members. |
| i. Number                   | 107 ‘full’ members (that pay their fees). |
| ii. Male/female             | M=93 / F=14 (mainly widows, representing their late husband’s household) |
| iii. Age structure          | 30 – 70 years old |

| **Local Initiative**        | Starting a cooperative society of farmers, mainly cattle herding, planting trees and growing crops on collectively owned land (registered at district level). |
| i. Was someone local         | i. Yes. A group of men decided to start a communal grazing land management group and taking care of their own (legal) land, securing the quality and health of their land and cows. |
| responsible for starting this | Motivation: Security of land; separating from Kabungo farmers and manage legally owned land as a society. |
| community organisation?     | ii. No. |
| Motivation?                 | iii. Little advisory services from district agricultural workers. |
| ii. Was an outside agency    | iv. No. |
| responsible for starting this | |
| community organisation?     | |
| iii. Is/was there outside   | |
| assistance asked/offered?   | |
| iv. Is the community linked  | |
| to other communities?       | |
5.1.2 Banyakabungo: 1997 - 2011

What follows is a chronology of how Banyakabungo developed over the last 14 years. Through the description of these developments, the reader will get a good idea of what this community consists; how they are organised and towards what goals they work. The methods by which these findings were collected are presented in chapter 4 (Methodology).

_Banyakabungo timeline_

With two of the executive committee members, a timeline was created. Although the assignment was not understood fully by the participants and there was a lot of distraction from other people that came asking ‘what was going on’ during the exercise (an everyday reality during the field research), the timeline eventually did contain a chronological order of the Banyakabungo development, from its inception on. Below, the timeline is put into a table, as interpreted by Moses Sabiiti, the district agricultural officer (translating from Runyankole to English). In addition to the timeline, the two members wrote down several facts about their society (points 2 – 6) which came up and were discussed during the assignment. In annex 4 a photo of the original version of the timeline can be found.

<table>
<thead>
<tr>
<th>Timeline – Recorded by Matsiko John, April 15, 2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Banyakabungo Twimukye Cooperative Society started in <strong>1997</strong> with a 200 members.</td>
</tr>
<tr>
<td>• Around <strong>2000</strong>, many members left the society.</td>
</tr>
<tr>
<td>• Registered in <strong>2001</strong> with local government (district).</td>
</tr>
<tr>
<td>• Opened a communal bank account in <strong>2002</strong>.</td>
</tr>
<tr>
<td>• Acquired the land title in <strong>2003</strong> (400 cattle at that time).</td>
</tr>
<tr>
<td>• In <strong>2006</strong>, two members of the society attended a training on land utilization (land for grazing, for planting trees, cultivation etc.) in Kampala.</td>
</tr>
<tr>
<td>• <strong>After</strong> the Kampala meeting (<strong>2006/2007</strong>), 2000 trees of species “Pinus patula” were planted on 20 ha (of total 186).</td>
</tr>
<tr>
<td>• <strong>Currently</strong> they are with 107 paying members</td>
</tr>
</tbody>
</table>
Table 11. Banyakabungo factsheet (by David Poyarukauge and John Matsiko)

<table>
<thead>
<tr>
<th>Factsheet – Recorded by Matsiko John, April 15, 2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Richard Mbeymire, the chairperson of the society, initiated the idea of communal grazing land management and utilisation of land into other purposes.</td>
</tr>
<tr>
<td>2. For general meetings, members are mobilized through a radio announcement or local advertisements.</td>
</tr>
<tr>
<td>3. They have bye-laws in the society.</td>
</tr>
<tr>
<td>4. If there is an opportunity of dividing the land then the society will decide, individual ownings of plots is a possibility.</td>
</tr>
</tbody>
</table>

Starting up Banyakabungo society: questions of leadership

The Banyakabungo group started in 1997, so much is certain. What stays uncertain though, is who exactly started the initiative. While Mr. Richard Mbyemire (the current chairman) was credited for the initial rise of BK society, he himself claims that he and “a few men came together” (including the current vice chairman, who credits himself in addition to Mr. Mbyemire for the start-up) and decided to own the land collectively. But the current chairman has not always been BK’s chairman. The first BK chairperson, named Jackson, was replaced by chairman Mbyemire. The members who talked about this seemed to be quite pleased with the removal of the first chairman. One respondent mentioned that Jackson “did not work well with the members” of the community and another mentioned him to be “eating their [Banyakabungo’s] money”. Mr. Mbyemire was the one – concluding from the interviews – that stood up to ask the local government about the land, and so he is indicated to be one of the main leaders of Banyakabungo as it is organised at present. Ignitius Tweinomuju, also a member of the committee mentioned that the ‘head of BK’, referring to Richard Mbyemire, is an important man in the community, and “knows much about leading” (pers. comm.: Ignitius Tweinomuju, 17-04-2011).

Before the official registration of the community as a ‘cooperative society’ was completed in 2001, in 2000 almost half of the members had left Banyakabungo. The main reasons to leave for many of the members was because they had failed to comply with the society’s bye-laws. The society’s members reduced from about 220 to the current 107 members. With the members of Banyakabungo that did stay it was decided to open a communal bank account, within which membership fees and profits from the production of land could be deposited.
Land title acquisition

Since the land of Banyakabungo once was government-owned land (not being looked after) and chairman Mbyemire could offer communal ownership, the government agreed and assigned the land title to the group in 2003. The community’s official land title got registered at the district level. The chairman mentioned that the government actually encouraged collective land management, since it addresses more than one person to look after the land. Former national coordinator of SCI-SLM Alex Lwakuba adds that the government is more likely to help out at the community level, when groups are mobilised by the people themselves, if they demonstrate the pursuit of environmental objectives. As far as he knew, when he visited Banyakabungo some years ago, the community received no outside help to form the group. It was from 2003 that the society started to use the land officially as a cooperative society, including growing trees and building a garden. The community members have mentioned one particular ‘cooperative officer’ to help them out sometimes, regarding the land and its management. This officer is also present at the ‘bigger’ meetings of the society sometimes, when problems internally to the society occur, such as disputes between the members. He is then called upon to serve as a sort of mediator.

Struggle over ownership of land: Banyakabungo versus Kabungo farmers

186 hectares of (currently BK’s) land were at the time the society started government land and used by different farmers and farmer groups, mainly for grazing. It was technically termed ‘open access common property’. From several community members it was learned that the Banyakabungo land, earlier on, was also claimed by another group of farmers: ‘Kabungo farmers’, a rival society. At the time of the research, a case in court was ongoing about who owns the land. ‘Kabungo farmers’ seem to be the generation of farmers using that particular stretch of land before the Banyakabungo society was founded. Although they were invited, not all Kabungo farmers joined the BK society, mainly because they had problems to comply with the bye-laws of Banyakabungo, such as paying a fee to be an official member. Now, one of BK’s challenges is that some of the ‘Kabungo farmers’ want to grab the land, according to chairman Mbyemire. Both the vice chairman and chairman were positive about the court case (still ongoing at end October 2011, pers. comm.: William Critchley, 04-11-2011) and the outcome, since they have “the district as their witness” (pers. comm.: Mbyemire and Poyarukauge 19-04-2011), where they are registered as the owners of the land.

5.1.3 Banyakabungo’s mission

When Banyakabungo cooperative society was founded, the group separated itself from the before-mentioned ‘Kabungo farmers’, who eventually prevented BK from letting their cattle graze on the piece of land that belonged to nobody (pers. comm.: Richard Mbyemire, 19-04-
It was Richard Mbyemire, the current chairman, who finally went to the ministry of land in Mbarara, to ask about the ownership of the land. This was the first motivation to start the community: to be able to own land with a group of farmers and to choose themselves where to let the cattle graze, without any conflict with other farmers or farmer groups.

The condition to get the land title was that the grazing land management group had to become a cooperative society which looks after the land together and registers for it collectively. The advantages the members mention about working in this manner are that they can support each other, and share the task of herding cattle together. Together, they feel like they stand stronger, knowledge can be shared and more work can be done. People can discuss certain problems and solutions with each other, relating to managing the land in a good way. An environmental challenge is to prevent overgrazing, and the community recognizes this problem. At the time of the study the community was in the process of redesigning their land management plans, namely to create paddocks and to rotate the cattle, to prevent (further) degradation of their land.

In addition to the cattle on the land, 20 ha. are reserved for a garden and a plot for trees to grow (species: *Pinus patula*). From the garden crops are grown. Each member has its own piece within the garden to grow whatever they like, and to look after it themselves (per household). The stretch of land where trees are planted is a communal future investment. When the trees grow bigger, the wood can be sold. With the money they make from the trees, the society can invest again in other development plans, beneficial to the all the members. The trees are also planted with the idea to bequeath something to the future owners of the land, the children of Banyakabungo.

*Figure 21 and 22. A general meeting with the whole society*

### 5.1.4 Organisational structure of Banyakabungo

**Organisational structure**

Banyakabungo has a leading committee. This executive committee consists of men only, most of whom are estimated between the age of 35 to 60 years old:

<table>
<thead>
<tr>
<th>Position</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chairman</td>
<td>Mbyemire Richard</td>
</tr>
<tr>
<td>Vice chairman</td>
<td>Poyarukauge David</td>
</tr>
<tr>
<td>Treasurer</td>
<td>Matsiko John</td>
</tr>
</tbody>
</table>
Officially, every 5 years the committee is reelected. But it was added that when there are “no problems” and “everybody agrees”, the people stay in the same position until there is disagreement (pers. comm.: David Poyarukauge, 13-04-2011). In the case of the former chairman Jackson, as mentioned before, he was ‘removed’, since many members were not pleased with his attitude anymore.

The governance of the society is democratic, according to vice chairman David. He explains this by adding that “people come to the chairmen” (i.e. Richard Mbyemire and David Poyarukauge), in case there are problems. Then, a meeting with all members is announced when the committee thinks the subject must be discussed in the group, and not only amongst the committee members. At the time of the field study, there was one big general meeting held with all members, because some points came up that needed discussion in the group. Every month and when necessary, a collective meeting such as this one is set up wherein all members are expected to show up. Of course we, the researchers, asked if we could join in the meeting but just after the general introduction we were sent away since the people of the community were going to talk in their local language and they would be distracted by our presence. Nevertheless, the vice chairman mentioned some of the topics for that meeting, such as the new management plan to make paddocks in their field and about the intruders that cut down trees on the group's land. All topics were about how they were going to look after their land, and people have the opportunity to bring in ideas in these meetings.

Chairman Mbyemire is quoted: “All members have a big stake in the future” (pers. comm.: 19-04-2011), and they make use of voting in which the majority decides. Also when there are smaller problems encountered, for instance in the field, solutions can be presented by members. For example, Ignitius and his observed problem of contaminated water streaming into the well where the cows drink. He came with a technical solution (created from his own mind) and showed it to his friends in the community. Later it was shared in a general meeting and it was agreed to make use of Ignitius’ designed solution.
During the introduction to the community, it was emphasized that “the people together decide”, about the happenings in this society and how to manage their land (pers. comm.: Matsiko John, 11-04-2011). The executive committee is there to bring structure and see to it that people commit themselves to the group’s bye-laws. When one member talked about the important role of ‘leader’ Richard, another intruded and asked the interviewee: “But is he more important than the others?”. The interviewee quickly responded, by saying that Richard is the head of the society, and helps and represents us but “he is no different than the rest of us, he is the same”, referring to the equality that is important in the society. Every member has an equal stake in Banyakabungo society and their collectively owned land, according to the vice chairman.

Rules
Several of the society’s rules that were important, have been mentioned by the vice chairman. The rules are referred to as “bye-laws” in the community:
1. Every member must pay an entrance fee to receive membership and a membership card, and an annual member fee. If you refuse, you must leave the society;
2. The member must pay a fine if he/she refuses to come to a meeting: USh\textsuperscript{16} 2,000.
3. Gambling is strictly forbidden, when caught he/she must pay a fine USh. 5,000.
4. Changing a law: negotiate, bring in idea/proposal during meeting. Every member has the right to propose something.
4. If a member dies, the son or wife will represent him (family chooses who, men go first, in principle).
5. Shares: every member holds an X amount of shares in the land. One share costs an X amount of Uganda shilling (same amount per share for everybody but the value is liable to change).

\textit{Figure 23. Administration: a list (1 out of 4 pages) of all BK members (mentions member number, full name, fees paid yes/no, and how much is paid).}

In addition to these rules, several rules are also set up for the members that handle the herding and milking of the cows, such as cleaning the cows every week (health reasons), members do this by a schedule, milking is done by the same group always (they earn money) and in the herding group clear functions and tasks are divided over the group.

Membership
Before, members could apply for membership, if they could pay an entrance fee, pay a yearly membership fee and bring in cattle. Right now, the membership is closed. Two reasons were given for this. Firstly, “there is only so much land”. With more members, more cows will also be

\textsuperscript{16} USh. is Ugandan Shilling. 3600 Uganda shilling equals approximately 1 Euro.
brought into the society and the land can only carry so much to stay in its current conditions, or even improve. Secondly, the court has put a caveat on the land and it cannot be developed further at this time. The only option now to become a member is to buy a share of a current member.

Figure 24. Vice chairperson David Poyarukauge holding two Banyakabungo membership cards.

Cattle
Banyakabungo started by letting each member bring their cattle into the field and herding them together, which led to 800 cows overgrazing the land. This was later adjusted; each member could bring a maximum of 4 cows. When it was noticed that the carrying capacity of the land was still exceeded, taking advice from governmental organisations as well, the amount of cows in the field is now brought back to about 100 cows but various sources mention different amounts.

From a field visit of the technical SCI-SLM team to Banyakabungo, it was concluded that the land is still overstocked (pers. comm.: W. Critchley, 04-11-2011). When the group knows there are too many cows and one is not productive (enough) anymore, it is sold. With the money made, assets for the community are invested in, or simply put on the bank account to invest in future development of the land.

5.1.5 Banyakabungo’s current challenges

Land management challenges
A lurking problem in the region is overgrazing, as mentioned before. This is the first and foremost challenge for the Banyakabungo community, relating to the environment as well as their livelihoods. Since the society’s start, the quality of the land did not get better but stayed the same, according to various members’ observations. The quality of soil and grass is important, since production (for the market and subsistence) depends on it. Low production yields also brought the group together. With more hands available, more work can be done and this is one of the strengths of the society, according to some of the members. Health and maintenance of the cows is also a concern.

Another issue that haunts the Banyakabungo people is the encroachment of outsiders on their land. Recently, trees have been cut down and crops were stolen by unknown intruders. There is also the problem of cattle trampling the crops in the garden, and fences are expensive to put up.

Challenges to social and economic development
No other big challenges are mentioned by Banyakabungo’s members besides the ones related to the production from land. From observations, one could add several points. Banyakabungo for
instance is in principle a men’s society. Women cannot subscribe as a member on their own, most probably since it is culturally determined that men own the assets in a household and make the important decisions for their family.

Since cattle herding is originally a man’s task, not many women were spotted in the field, besides the ones that live with their family close to the *ceraros* (where the cattle are corralled at night), to watch over the land and cows. This society does not offer direct employment or tasks to the women and were also never mentioned by the committee to have a particular function in the society, except for occasionally working in the garden – but during two walks through the field no women were seen there at all. In the executive committee there are also no women. The question is: to what extent is it actually necessary that BK provides tasks for these women (the wives of the members)? Unfortunately there was no opportunity to see what the women of Banyakabungo do, besides running the household and taking care of the children. They might have their own jobs, groups or activities, next to their family being a Banyakabungo member.

The economic situation of Banyakabungo was not discussed in detail with the committee members. They mentioned they own a bank account in the name of the Banyakabungo society, own assets, and have an office. With the milk they sell everyday the most money is made for the society, which is divided over the shares the members own. The chairman mentioned in an interview that there is “sufficient production” (*pers. comm.*: Richard Mbyemire, 19-04-2011) for the society’s members to live off.

Some of the members and committee members have a business besides their activities with Banyakabungo. The chairman for instance, owns a bar in town and the vice chairman own a storage house on the main road to town. From a tour through the area, it was observed that one member also owned an own plot and had a zero-grazing system with 5 cows in the backyard. Generalising from this, it can be assumed that probably more members have their own plots of land, in addition to the land they own through Banyakabungo membership.

5.1.6 Current approach to the challenges

After the land title was secured by the Banyakabungo society, the way in which the land was looked after changed. People started to observe the degradation of the land and started to think more about the carrying capacity of the land, according to Matsiko John, treasurer of the society. By including cultivating in the garden and growing trees for timber, production grew and more money became available to invest in the land. One member is assigned farm controller, paying specific attention to the grass and the garden. Together with occasional agricultural advice from
local government institutions, the land is now looked after more closely to not degrade (further) while production is being maximised.

In agreement with advisors from NAADS (National Agricultural Advisory Services), SCI-SLM’s agriculturalists (technical team) and Uganda’s local district agricultural officers, the amount of cows on the land was already brought back in order to improve the grazing management system (which is currently still overgrazed, pers. comm.: W. Critchley, 04-11-2011). In addition, future plans are in the making which aim at improving the community’s and land management situation, which goes beyond managing cattle. Together they already invested in creating a plot planted with trees, for the future of their society. Additionally, the society’s garden is well looked after, wherein each section of the garden is reserved for a particular group of people (one household) where their own crops can be grown.

The most important aspect of Banyakabungo society is that they make use of a collective management system to look after and own their land, which is not a common practice anymore in Africa and beyond. Especially after colonial rule in Africa, the policies of the newly independent governments, and increased market activity and population growth, these kind of ancient systems of communal land management have been breaking down. Banyakabungo shows that these communal systems may have a future again, when adjusted to today’s reality. Additionally, the BK leaders mention that “many hands make little work”; the collective manpower and commitment to make good profits, secures the group. The Banyakabungo group and its members show a willingness to make things work and understand that they will make headway if their common goal is pursued collectively. In addition, people in this group feel like they are part of something bigger, making them more secure to try new things. Members of Banyakabungo have said to feel like they have a bigger family, being part of the society. They support one another and have developed a sense of pride about their land. There is now an incentive for the members of Banyakabungo to protect and take care of the land; there is more production, and assistance is increasingly offered from outside (knowledge, creating a network), because helping Banyakabungo means helping many people at once.

5.1.7 Banyakabungo’s future plans and wishes

At the time of the visit the land could not be further developed while the land was still in judicial dispute. Despite this drawback, the group’s executive committee discussed many future plans. The group is definitely looking ahead. Three drawings – before, now and future – were made to illustrate the actual development and future wishes of Banyakabungo. The future plans are presented in the table below and the illustration is a photo of the original drawing (map of
Banyakabungo land, including the future plans. The drawings of ‘before’ and ‘now’ are enclosed in annex 5. Here, the future plans are listed, since the drawings on their own do not clearly present the ideas:

<table>
<thead>
<tr>
<th>Banyakabungo future development plans</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Short-term</strong></td>
</tr>
<tr>
<td>Plant more trees (1000 more) for the society, a future investment.</td>
</tr>
<tr>
<td>Stop digging in the garden: make it part of the grazing land.</td>
</tr>
<tr>
<td>Dividing the land, creating 10 (fenced) paddocks to rotate the cattle (100 ‘Ankole’ cows and 100 ‘Exotic’ cows) and separating the Ankole and Exotic milk cows.</td>
</tr>
</tbody>
</table>

![Figure 25. A future design of Banyakabungo’s communal land. Drawing by vice chairman David Poyarukauge](image)

- Use the current garden for grazing (start in 2011)
- plots for houses, built along the road
- create (10) paddocks
- (now empty) add 1000 trees
- separating (100) Ankole and (100) Exotic milk cows, rotating them;
- growing the cows bigger.
5.2 Community 2: BANDERA 2000 Association

5.2.1 Introduction
Balimi (meaning: cultivators) Network for Developing Enterprises in Rural Agriculture, abbreviated as BANDERA, was officially established in the year 2000. The association has members in 13 sub-counties, over 3 districts in the (eastern) Busoga region. The most members are located in Kamuli district, where the organisation was founded.

Figure 26. and 27. BANDERA 2000’s chairperson Mr. Mpaata showing a ‘certificate or merit’ for BANDERA 2000 (right) and his business card (left).

The BANDERA 2000 association represents many things. Not only does this group share information about sustainable farming practices amongst its members, looking for better market access, encouraging individual farmers to establish gardens on their own plots, and maintaining a tree (seedling-) nursery; they also work actively on social development in their region.

In the table below group features of BANDERA 2000 are presented. This information was mainly collected from chairperson Mr. (George) Mpaata, co-founder of the BANDERA association.
<table>
<thead>
<tr>
<th><strong>BANDERA 2000</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Date:</strong> May 17, 2011</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Community name (full)</strong></th>
<th>Balimi Network for Developing Enterprises in Rural Agriculture (BANDERA) 2000</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>i. Type of organisation</strong></td>
<td>Agricultural development (network) group, company limited by guarantee (not having a shared capital)</td>
</tr>
<tr>
<td><strong>ii. Management structure</strong></td>
<td>Executive committee, district council, the farmers assembly</td>
</tr>
<tr>
<td><strong>iv. Official status</strong></td>
<td>Company limited by guarantee, community-based organisation, registered with registry of companies Uganda in Kampala.</td>
</tr>
<tr>
<td><strong>v. Ownership</strong></td>
<td>No communal land (anymore), an office.</td>
</tr>
</tbody>
</table>

| **Location** | LC1 (village level): Natimawa (location office BANDERA 2000)  
LC2 (parish): Nawanyano  
LC3 (sub-county): Nawanyago  
LC4 (county): Buzaaya  
LC5 (district): Kamuli |
|--------------|------------------------------------------------------------------|

<table>
<thead>
<tr>
<th><strong>Members</strong></th>
<th>Yes, there are selection requirements (intake interview).</th>
</tr>
</thead>
</table>
| **Membership required?** | 350 members  
M = 160/ F = 190  
22- 70 |

<table>
<thead>
<tr>
<th><strong>Local Initiative</strong></th>
<th>The foundation of a farmer group, connecting farmers to share knowledge and supporting each other to earn more money, changing farming practices and build a network in the Busoga region.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>i. Was someone local responsible for starting this community organisation? Motivation?</strong></td>
<td>i. Yes, Mr. Mpaata took the initiative together with 4 other people. The biggest motivation is fighting against sickness and poverty, and improving peoples lives.</td>
</tr>
<tr>
<td><strong>ii. Was an outside agency responsible for starting this community organisation?</strong></td>
<td>ii. No.</td>
</tr>
<tr>
<td><strong>iii. Is/was there outside assistance asked/offered?</strong></td>
<td>iii. Some training was given by government workers and agricultural NGOs (see next point).</td>
</tr>
<tr>
<td><strong>iv. Is the community linked to other communities/organisations?</strong></td>
<td>iv. To KULIKA organisation, which promotes sustainable agriculture and is a member of NOGAMU (National Organic Agricultural Movement of Uganda). Occasionally works together with other local development organisations.</td>
</tr>
</tbody>
</table>
5.2.2 BANDERA 2000: 1995 - 2011

**Timeline**

Here the establishment and development of the BANDERA 2000 association will be described. Several executive committee members created the timeline below (copied from the original: see annex 6 – with a few corrections in the English). Unlike the Banyakabungo timeline, this BANDERA timeline is very comprehensive. The English language was used instead of the local Lusoga language, since the execute committee members’ knowledge of English was sufficient for this exercise.

**Table 13. BANDERA 2000 historical timeline (copied from hand-written timeline)**

<table>
<thead>
<tr>
<th>Year (# members)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995 (5)</td>
<td>BANDERA 2000 was started in 1995 with a few members. It was located on Kamuli Jinja Road. By then it was called Kiyunga Silk Development Centre. <strong>The group was founded by five members.</strong> 1. Mpaata George, 2. Mukasa Agrey, 3. Eronda Joseph, 4. Betty Tigawalana, 5. Tappy Kintu. It was founded because <strong>we wanted to fight poverty.</strong> From there we organised a meeting and called neighbours. In the meeting we <strong>talked of the poverty and how we should fight against it.</strong> Some members responded but some didn’t. In the talk we had a project of silk. People were given seedlings to plant and houses were built to store the silk.</td>
</tr>
<tr>
<td>1997 (45)</td>
<td>The project was good and members who managed properly <strong>earned money.</strong> As a group we <strong>looked for something else to add</strong> and that was ocra. We planted ocra and this gave members money which <strong>attracted others to join the group.</strong> Ocra gets mature or ready in 45 days only. We packed fruits only and it <strong>released people from poverty for some time.</strong></td>
</tr>
<tr>
<td>2000 (501)</td>
<td>In 2000 we had a <strong>programme on the radio of fruits planting.</strong> We organised for a meeting and this was done. In the meeting we told our members of the project we had and they were also happy about it. In minute no. 150, we <strong>resolved to plant fruits</strong> and in the same meeting we <strong>changed the name from Kiyunga SDC to BANDERA 2000.</strong></td>
</tr>
<tr>
<td>2002 (1000)</td>
<td>In 2002 the executive director of <strong>Export Promotion Board</strong> had a friend who wanted a registered group to be <strong>visited by the “Afro Fresh Foods Director”</strong> from the Netherlands. He rang to the chairperson and told him and the chairperson passed information to us and we organised an immediate meeting. Indeed it was done. We organised and <strong>received the visitors.</strong> The visitor told us that he was looking for a registered group to work with. Members agreed upon it and <strong>we made a commitment letter with them.</strong> (MoU, Memorandum of Understanding).</td>
</tr>
<tr>
<td>2003</td>
<td>In 2003 we received a managing <strong>Director of Afro Fresh Foods</strong> from the Netherlands on the 4th October 2003, and by time we were BANDERA 2000 export village. The director was very pleased and he <strong>agreed to work with us.</strong> in this we made MoU with them. We <strong>started to mobilize members</strong> for the</td>
</tr>
<tr>
<td>Year</td>
<td>Event</td>
</tr>
<tr>
<td>------</td>
<td>-------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>2005</td>
<td>In 2005 we looked for a land near the source of the Nile and rented it. We agreed with the Afro Fresh Foods for the renting. This was done and we started clearing the place.</td>
</tr>
<tr>
<td>2006</td>
<td>In 2006 we started planting the mangoes 45 acres, Oranges 42 acres, pineapples 40 acres, passions fruits 40 acres, [seedlings for] mangoes were bought from Kawanda, Pineapples from Mityana and by Afro Fresh Foods and oranges were grafted by the group plus passion fruits. In this 2006 we hosted the Vice-president on the 12th October to launch the irrigation system at Izanyiro Farm. He was pleased and he committed to pay the co-funding of the factory.</td>
</tr>
<tr>
<td>2007</td>
<td>In 2007 on 2 May, his Excellency the President of Uganda Yoweri Kaguta Museveni visited our farm and he was happy with the project and he promised to boast irrigation and to fulfil the VP’s promise of co-funding of the factory plan. The technical people from the government went through the company’s profile to show if there was share percentage of BANDERA 2000 but it was not there. They were told to put in /show BANDERA 2000s share in the Company and he signed but they [Afro fresh foods] refused and government also refused to fund the factory.</td>
</tr>
<tr>
<td>2008</td>
<td>In 2008 the Dutch government sent their project co-ordinator to come and see the constructed factory and give money for machines but there was nothing done. This was in April the 20th. This made the project to be cancelled by the Dutch government. The Afro Fresh Foods also disappeared from Uganda. And the landlord also sent us away from his land because nobody was going to pay for the land. We organised for a meeting, we told the members what had happened and we resolved to go back and start working from their home. Good enough all members were trained. They have the knowledge and managing what is planted.</td>
</tr>
<tr>
<td>2009</td>
<td>This year we have been busy planting in our areas and making some more nursery beds.</td>
</tr>
<tr>
<td>2010-2011</td>
<td>2010 continuing with planting, nursery beds, and some monitoring to our members. We started to train members how to process juice from mangoes, oranges, pineapples plus passion fruits. It [the training] was done by the NOGAMU.</td>
</tr>
<tr>
<td></td>
<td>In 2011 on the 9th April, the ministry of Agriculture offered a trip to Bandera 2000 to visit Iganga district, Palise district, and Soroti by the SCI-SLM project. On the 7th May 2011 we got researchers from Netherlands (Olaf and Eva).</td>
</tr>
</tbody>
</table>

From this timeline, it can be concluded that BANDERA 2000 is and has been a pro-active group, taking initiative and showing endurance. Many things changed and improved since Kiyunga SDC was founded and the association (as it is officially referred to nowadays) has broadened its scope increasingly since its foundation 16 years ago. The main events from 1995 up until now have been summarized in the timeline, illustrating the “BANDERA 2000 lifecycle”, as drawn by several key members of the BANDERA 2000 executive committee. Below the timeline will be extended by presenting information retrieved from interviews, with chairperson Mpaata George and several other executive members.
Start-up BANDERA 2000: from silk to fruit

In the year 1995, a few friends living in Kamuli (district) came together and decided something had to change in their villages. What they saw around them was poverty, sickness, instability and minimal production from the land. But what they saw as well, was potential to do something about it. And so they started to undertake action with the idea “together we can achieve” (pers. comm.: Mpaata George 17-05-2011).

Mr. Mpaata, the current chairperson of BANDERA 2000, noticed a silk development project in Inula, a village nearby, and got interested in this. He visited the silk development centre, shared what he had seen, and with a group of five they decided to also start developing silk to earn more money. From Inula, trainers were sent to teach them about keeping silkworms. The five people started to grow mulberry trees on their farms (where silkworms live in and eat from) and became suppliers of silk to Inula, under the name Kiyunga Silk Development Centre (SDC). Their little group started growing to about 40 people when it was noticed that this business was profitable.

When in 1998 a silkworm disease struck the region and Inula did not pay upon delivery anymore, the business with Inula was stopped and several silk development centres in the area (including Kiyunga SDC) fused and formed Uganda Silk Producers Association. With this bigger group, they continued but the market became problematic. The founders of Kiyunga SDC thought that another product could be added to make more money. Okra, a plant valued for its edible green seed pods, seemed to be a good addition since there was a demand for it and the plant grows fast. The group stopped with the silk association in 1999 and altered its course.

In 2000, the five initial members met with ‘BANDERA’, owned by “a friend” named Godfrey. He founded a local NGO called Balunga Namaganda Development Relief Association (BANDERA) and was interested to work together with former Kiyunga. It was his intention to develop the village, but was not interested in concentrating on more than one village (his own village). He convinced the group that he had arranged donors and that they could work towards something bigger together. George and the group found out that this man and his organisation were not to be trusted – “he had bad intentions”, according to George – and took things over when Godfrey vanished from the village. Kiyunga SDC changed to BANDERA and added ‘2000’ to the abbreviation, breaking with its old name and advancing the initial goal of the group: to fight poverty, sickness and instability by developing enterprises in rural agriculture. BANDERA, from that time on, stood for BALIMI Network for Developing Enterprises in Rural Agriculture (BANDERA 2000).
By the start of BANDERA 2000, former Kiyunga SDC had recruited quite some members, while turning to planting okra and other fruits. They had “many enterprises”, in George’s words, growing hot peppers, sweet bananas, matooke\(^{17}\) bananas, mangoes, and many more. When BANDERA 2000 became a fact, the group had collected around 500 members. It grew so fast because people in the region noticed that around them, farmers were making more and more money and doing good business. In the years after, fruit planting became the focus and collective marketing and knowledge sharing on farming practices a means to increase productivity. Members were trained, with the help of agricultural membership organisations and local district agricultural officers.

\textit{Adding value: partnership with ‘Afro Fresh Foods’}

By that time, the group had the main aim to add more value to their products from the land, when they learned how much could be gained when they did their own processing and selling. When in 2002 an offer was made by a Dutch company ‘Afro Fresh Foods’ (AFF) to buy fruits from a (registered) farmer group in rural Uganda, offering financial support, BANDERA 2000 was informed by the GoU’s Export Promotion Board and their dream of processing their own products (from planting to packing) seemed to be coming true. “Project Afro Fresh Foods” started in the end of that year and BANDERA 2000 grew to even more members, when ‘BANDERA export village’ became a fact. Agreements were made, contracts signed, and members mobilised. The years after, as described in the timeline, the group started to prepare itself, and initiated ‘phase 1’ out of 3: to plant many different fruit trees and renting a big piece of land for the members to grow the fruits on. But phase 2 and 3 never started.

\textit{Collapse of the dream}

By 2007 still nothing had really come off the ground and the AFF partnership was finally brought to a close, mainly because of financial mismanagement and AFF failing to keep their side of the bargain, according to Mr. George (\textit{pers. comm.}: Mpaata George, 08-05-2011). The Government of Uganda also got involved in the meanwhile and promised to fund and install an irrigation system on the rented land, close to the River Nile, to co-support the development of the partnership between AFF and BANDERA 2000. But due to a lack of finance and conflict with the land owner the communal land was lost in 2008, including the irrigation system (which was already installed by that time) and fruit trees of the BANDERA 2000 group.

\(^{17}\) Matooke is an important staple food in Uganda, consisting of plantain (green) bananas. It is the favourite food of many Ugandans and most of them eat it every day (source: own observation).
Recent years

BANDERA 2000 decided to continue as a group after 2007 and growing fruits from their own individual plots despite all disappointments. The positive attitude was held on to since farmers were now trained how to plant seedlings and many learned how to maintain their trees and land during the time BANDERA 2000 was still managing well and had more money available. But not everybody kept hope. Many members did not believe in the group anymore after 2007 and decided to give up their membership. According to Mr. Mpaata, “they only think about money” and showed some disappointment in ‘his’ people. At present, BANDERA 2000 has approximately 350 members with more female than male members. The BANDERA 2000 NGO turned into a company ltd. by guarantee and still pursues the economic goal of adding value to their products, in addition to extending social development aims for the people in the Busoga region.

5.2.3 BANDERA 2000’s mission

“Where you’re alone, everything is more difficult.”

Mpaata George, May 17th 2011

BANDERA 2000s mission is simply said: to fight against poverty, sickness and hunger by improving agriculture. Many members of BANDERA 2000 and relatives of the people were lost because of severe diseases, leaving many orphans and widows behind. One of the biggest motivations to start a group was to help these needy people, through creating one voice: the farmers’ voice in the Busoga region. By sensitising the people and training them how to cope with the land-related challenges (promoting sustainable farming practices) and to stimulate the set up of new agricultural enterprises, the aim is to improve household incomes and thereby the livelihoods and social development of the people. The group has a special focus on women’s development since they work the most on the land and “can often suffer from their husbands’ bad behaviour”, according to Mr. Mpaata (pers. comm.: Mr. George, 08-05-2011). In order to involve and mobilise women more, a women’s group has been set up. The higher objective of BANDERA 2000 is to market the members’ products collectively and creating better market access by cultivating fruits from a shared piece of land so that they stand strong together, contributing to their region’s development economically and socially.

Women empowerment

Tappy Kintu represent the female members of the BANDERA 2000 association. She is also the secretary general of the group and an active member. Her aim with the women’s group is to get men and women working together. It is her belief that if they work together, they can achieve more. She explains that some time back, men would not allow women to earn money, but this is
changing now. “Women are also humans and have good ideas. There is a need to empower women!” (pers. comm.: Tappy Kintu, 10-05-2011). Mrs. Kintu talks to the women, arranges meetings and educates them on certain subjects. In the group, they talk about “how to be a good woman at home”: how to look after their husband, children, and having enough and nutritious food in the house (pers. comm.: Tappy Kintu, 10-05-2011).

*Figure 28. Mrs. Kintu in her garden*

In addition, women are stimulated to earn their own incomes. They are encouraged to make things such as mats, tablecloths and baskets in women’s groups. Tappy also showed an energy saving stove during a visit to her home, which was build by the women themselves and now they are selling these. It is made out of organic material only such as soil, grass and banana stems and many people in the region use them, she told. Via the women’s meetings, women are creating one voice and feel empowered. According to Tappy it is important that the government encourages women to develop as well, and stimulating the creation of women’s groups where they teach women how to stand on their own and not only being dependent on their husbands anymore. Men in the group are also learned that women should be appreciated and can stand on their own, according to Tappy (pers. comm.: Tappy Kintu 10-05-2011).

*Orphans, vulnerable children and widows*

HIV and AIDS and other life threatening diseases are topics which are spoken about relatively openly within BANDERA 2000. Since many friends and family members were lost because of sickness, caring for the needy people such as orphans and widows is taken up as a development goal in BANDERA’s constitution. There is an orphan’s leader appointed in BANDERA, her name is Betty Tigawalana (also the committee treasurer). Several objectives in this category are mentioned below:

The objectives for which the association is established are: -
- “… Provide medical and psycho- socio support for at least 30 children affected by or infected with HIV/AIDS virus for the betterment of their health.
- Sensitization of youth and children about HIV/AIDS and its related effects.
- To enable at least 150 orphans in each sub-county attend school regularly throughout the year by subsidizing their school fees and scholastic materials requirements (…)”

BANDERA 2000 is also linked to other development groups, solely caring for orphans, widows and other vulnerable people in the region.

*Motivation and leadership*

“If a blind person works together with an able person, it can help. I have hands and legs, I can work. But you, you have eyes. Work together, and we can achieve”.
The name of Mr. George Mpaata has been named quite some times already in this section. This man has played a fundamental part in the foundation of BANDERA 2000 but also of its forerunner, Kiyunga SDC. He explained the motivation for him to start a group in a long interview on one of the last days of the field visit.

Figure 29. Mr. Mpaata (left) helps out with translating during an interview with Ali, a BANDERA 2000 member.

In 1993 Mr. Mpaata met with some people who worked in town but did not help their communities in the rural areas. He had a vision for his community but he could not organise things since he did not know how to start an official group or how to write things down. He asked the educated people in town [in the quote: “the people who have eyes”] to write a document, about the structure of an organisation so he could learn. It had to be an organisation of many people, benefitting many people. His interest in collective action was instigated when he saw people working together in town, and observed how this benefitted them. Upon return to his village, he saw the people struggling and working alone on their plots. He saw the need to start an organisation as well, fighting the problems in his village and beyond, by connecting the people and achieving goals together.

Mr. Mpaata is still chairperson of BANDERA 2000. He is honoured to still fulfil the function as a leader, meeting many different people from different countries and learning everyday. He sees this as the main benefit of being a leader. He tries to look “very very very far”, meaning that he thinks long-term and is future-minded. Although he has twelve children to look after, he believes that leaders “have to sacrifice” to function as a good leader, pursuing the collective good. He pays his own learning programmes, but some are sponsored (by agricultural training programmes) since he is a group representative. He does not earn anything as a chairperson but spends a lot of time training farmers, maintaining gardens and taking care of the group’s seedlings, showing his drive to make this group successful. When Mr. Mpaata will one day stop being chairperson or passes away, he believes BANDERA will stay because he is now already training younger people, learning them what leadership means. They can take things over “but they must know how to sacrifice”, Mr. Mpaata emphasizes. In addition, he credits his co-leaders (the executive committee) for their devotion. During the field visit, Mr. Mpaata made lots of time and showed us everything having to do with BANDERA 2000. It was clear that this man is doing all he can for the group, making decisions for the social good.
5.2.4 Organisational structure of BANDERA 2000

The region in which BANDERA 2000 is active is a traditional kingdom of the Basoga people who have a strong connection with each other, speaking the Lusoga language and sharing the same cultural background. This region consists of three districts: Kamuli, Jinja and Luuka (former Iganga district). The BANDERA association has members in all three districts, spread over 13 sub-counties. In the group’s “Memorandum and articles of association” document, all the institutional information about the group has been anchored, which was needed to officially gain the status of a company limited by guarantee (and not having a shared capital) in 2006. The group is also registered as a community-based organisation (CBO) with the Kamuli district local government and was registered as an NGO before, with the national NGO board of Uganda, in Kampala.

BANDERA 2000’s organisational structure is illustrated below in figure 30. The executive committee consists of (BANDERA 2000 Memorandum and articles of association, 2008: 11):

<table>
<thead>
<tr>
<th>Function</th>
<th>Name</th>
<th>Male / female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chairperson</td>
<td>Mpaata George</td>
<td>male</td>
</tr>
<tr>
<td>Vice chairperson</td>
<td>Baligenya Patrick</td>
<td>male</td>
</tr>
<tr>
<td>Secretary general</td>
<td>Kintu Tappy</td>
<td>female</td>
</tr>
<tr>
<td>Treasurer</td>
<td>Tigawalana Betty</td>
<td>female</td>
</tr>
<tr>
<td>Publicity secretary</td>
<td>Samuel</td>
<td>male</td>
</tr>
<tr>
<td>Women’s secretary</td>
<td>Isabemirye Betty</td>
<td>female</td>
</tr>
<tr>
<td>Youth secretary</td>
<td>Tebigawayo Patrick</td>
<td>male</td>
</tr>
<tr>
<td>4 Committee members</td>
<td>R. John, K. John,</td>
<td>male, male,</td>
</tr>
<tr>
<td></td>
<td>B. Betty, S. Babiryi</td>
<td>female, female</td>
</tr>
</tbody>
</table>

*Figure 30. Organisational structure BANDERA 2000 (adapted from a drawing by Mr. Mpaata)*

The board committee (the founders of BANDERA 2000) chose the executive committee. Every three years a new committee is chosen by nomination and an election. The majority of all the BANDERA members’ votes (in the farmers council) will decide whether the committee will have to be changed. So far, Mr. Mpaata has always been the chairperson of BANDERA (since 2000). For small intra-organisational issues, the votes of the simple majority are called upon. All sub-county leaders come together with the executive committee and decisions will be made for the
group. For more serious problems and major decisions considering the whole group, the farmers assembly gathers, and the majority rules.

BANDERA 2000 has a constitution which is quite comprehensive, with all 35 objectives of the group fully written out (see annex 7: copies of all the association’s objectives). For the organisational structure of the group, rules have been noted down, of which the first one is: “At least one third (1/3) of the Executive Committee shall be women”; currently, 5 out of the 11 committee members are women. (BANDERA 2000 Memorandum, 2008: 12). Again this proves that women’s development is a serious objective of the association.
**Membership**

Currently, BANDERA has 350 members, spread out over 3 districts. After the Izyaniro (communally rented) field was lost, many members gave up their membership. At the moment, BANDERA 2000 is looking for more members again. The executive committee believes it will help when they have communal landownership again and processing equipment at their disposal so people have a financial incentive to join, which is often the most important for them.

“Everybody can join [BANDERA 2000]”, according to Mr. Mpaata (*pers. comm.:* 08-05-2011). But one cannot just walk in, pay, and become a member. A new member needs to apply and is then interviewed by the executive committee. In this interview, the person is evaluated whether he or she fits in the organisation, is willing to contribute and motivated enough. A future member should therefore have a good reason to become a member (most reply that they want to market their products, according to Mr. Mpaata). The person’s behaviour is evaluated as well, because BANDERA 2000 does not allow people that “disturb their organisation”, such as alcoholics. When this sort of behaviour is noticed the disciplinary committee come into play; “you can be a member after you have grown up”, Mr. Mpaata mentions. Members also pay a so-called ‘commitment fee’ to join, of USh. 10,000. Finally, members are expected to contribute in addition to paying a membership fee; the executive committee wishes to have an interactive relationship with its members, inviting them to propose new ideas and sharing it with the group.

**Rules**

Rules about membership, the functioning of the different committee’s and the specific roles of the people in it are extensively described in the articles of the association’s constitution (full constitution available on demand). Members should attend the BANDERA 2000 meeting at the start of every month, in which several subjects are discussed, brought in by the executive committee but also by the members. Around 100 – 200 members attend each month, according to secretary-general Tappy Kintu. Besides the ‘bad behaviour’ rule and the intake interview mentioned above, there are not many rules applicable right now since all members cultivate their own individual plots at this moment (instead of on communal land – which is wished for).

### 5.2.5 BANDERA 2000’s current challenges

A focus group with executive committee members as well as ‘normal’ members was created to discuss the major challenges related to land management and socio-economic development. Before this, several (BANDERA 2000 member-) individuals and families were also visited in different villages of the region, to talk into depth about their specific land problems, and how

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18 USh. = Ugandan Shilling. 3600 Uganda shilling is approximately 1 Euro.
membership to BANDERA 2000 helps them towards creating solutions. Summarizing from these interviews and discussions, the following challenges have been identified by the BANDERA 2000 members.

**Land management challenges** (in random order):
- soil infertility
- pests and diseases
- drought
- lack of technical skills / knowledge to protect the land
- lack of materials / machines (everything done by hand, costs a lot of energy and time)
- not enough seedlings available, and expensive to buy
- fruits need a lot of time to grow – not yet bringing an income just maintenance costs at the moment

**Challenges to social and economic development**

Poverty and sickness and the instability this presents to people’s livelihoods, are the ‘umbrella causes’ for restraining sustainable development in the region. The following issues have been mentioned by BANDERA members and leaders to be crucial, and hamper improved land management, with which most of the people earn their income (in random order):
- losing educated people to the city / lack of technical skilled members
- the role of women (suppressed, no voice) and children (working instead of learning in school)
- general lack of education, hygiene and awareness;
- mobility / transport of produce to markets;
- middlemen: farmers depend on middlemen to sell their produce (problem of mobility and remoteness), who pay low prices;
- land is sold (in order to get children to school);
- no security of land, especially for women;
- gardens are scattered, no communal land (cannot manage and control properly as a group);
- theft from land;
- communication – sharing knowledge is hampered because of remoteness
- lack of financial means to invest in improved land management (other priorities for the money)
- post-harvest storage possibilities
5.2.6 Current approach to the challenges

“(…) it was good to join BANDERA 2000 because I got new knowledge and knowledge brings an income”.

Ali Kaladha (BANDERA 2000 member), May 11th, 2011

In the past, many members choose to become a member of BANDERA 2000 because they had a financial incentive; by working together, sharing knowledge and marketing their produce together more income could be earned. BANDERA 2000 cannot recruit its members via this incentive anymore because presently the group is not earning money. Since the communal land in Izyaniro was lost, many members gave up their BANDERA membership. Still, there are a few hundred members active, which share knowledge and try to think of new initiatives to prosper in the future and earn a better income. The following things are undertaken within the BANDERA 2000 group to counter their problems (all listed in random order).

**Relating to land management**
- Offering trainings to members about sustainable farming practices;
- Setting up cross-visits to each others plots and discuss farming techniques;
- Training members to become trainers themselves to spread knowledge. At present, there are 8 trainers (3 women, 5 men) active in the community;
- Monthly meeting to talk about problems and new developments with the whole group;
- Discussing subjects such as improving access to markets, saving money to buy communal land, how to help the needy people in the region;
- Findings donors and applying for government programmes to improve rural agriculture.

![Figure 31. Trying new things: BANDERA 2000 members producing fruit juice (from left to right: Tigawalana John, unknown, Tigawalana Betty, Mpaata George).](image)

**Relating to socio-economic development**
- Creation of a women’s and youth sub-group and appointing leaders
- Drama and music (plays) are used to bring across messages relating to land and social management.
- Sensitisation / awareness raising to improve family situation

In addition, BANDERA 2000 has many social development goals which can only be met when there are plenty financial resources available, according to several members of the executive committee. Since the communal land was lost after BANDERA 2000 became a company, and no
money is earned by the group collectively (only through collecting membership fees), objectives such as supporting orphans and paying school fees (see annex 7 for all of BANDERA’s objectives) cannot be met at the moment. Despite the current financial scarcity the BANDERA 2000 executive committee and its members have many future plans and hopes.

Figure 32. Children of BANDERA 2000 members: BANDERA 2000 aims to send them to school if the parents cannot pay for their school fees

5.2.7 BANDERA 2000’s future plans and wishes

“If God wishes... and we get money...” (Mpaata George, 10-05-2011) the following plans will be implemented in the future:

Communal land

“If it is our land, it can look very nice”, according to Mr. Mpaata. BANDERA 2000 is looking for a big piece of land to buy, and to manage collectively. This plan is an important one, since many members look back on the ‘Izyaniro (their former communal land) time’ as being the main accomplishment of BANDERA 2000. This way, the members are closer connected and can literally work together and look after their collective land. At the moment, money is the main obstacle. Tappy Kintu mentioned in an interview that each member will be asked in an upcoming meeting to save up a feasible amount of money per month (USh. 10,000), which will be put together to eventually buy land (pers. comm.: Tappy Kintu, 10-05-2011). She knows that it can still take some time until there will be enough money available but she also thinks that ¾ of the group is willing to save up for this purpose. She adds: “you must pay for the good of the group” (ibid). On this future communal land, a variety of crops and fruit trees will be grown, of which the harvest is aimed to be marketed collectively. Building up a training centre is an additional wish, so all the members learn how to cultivate in a sustainable manner.
Expanding tree nursery
The tree nursery of BANDERA 2000 is expanding at the moment but it is not yet big enough to provide the whole group with seedlings. More fruit trees must be planted (currently on the individual plots of the members), so that selling fruit will become the focal point of the association.

Market access
Better access to the market is strived for, by improving means of transport, eliminating the need for middlemen, and working from one communal land closer to the bigger trading centres. Exporting fully processed BANDERA 2000 products, as was promised to the association in the early 2000s by ‘Afro Fresh Foods’, is the ultimate target, adding more value to their produce.

Processing plant
The ultimate wish of BANDERA 2000 is to have their own processing plant, and making more money with the fruits and vegetables they are growing now. The idea is that “once we have a processing plant, the land will have more value” (Tappy Kintu, 10-5-2011). Mpaata George and Betty Tigawalana add that “This will also create jobs, since the factory needs a manager, a food scientist, and many other skilled employees, so our (educated) kids do not have to go to the city. When there is more income, school fees will be paid and needy children and other vulnerable members can be supported better” (Betty Tigawalana and Mpaata George, 10-5-2011).

Figure 33. Citrus fruits: may be the future of BANDERA 2000?
CHAPTER 6. REFLECTIVE ANALYSIS AND DISCUSSION

This chapter will reflect on the theory and findings by discussing the research sub-questions, in preparation for the next chapter wherein the conclusion and recommendations are presented. Sub-questions I, II and III, addressing the primary objective of the research (as presented in section 1.3), will guide the first part of the discussion in section 6.1. The second objective of the research concerns a reassessment of the current SCI-SLM methodology to identify and assess social innovation, and is addressed by sub-question IV (presented in section 1.3). In section 6.2 this last sub-question will be discussed, from which the recommendations to SCI-SLM follow; these will be listed in chapter 7. Resulting from this reflective analysis and discussion, the central research question is answered (also in chapter 7).

6.1 Social innovation: reflecting on the theory and research findings

Sub-question I: How can social innovation be conceptualised and consequently be identified in rural Uganda?

Social innovation has been identified as one particular type of farmer innovation: “the development of systems that are new – in local terms – by farmers using their own creativity” (Critchley, 2007: 13), as presented section 3.2. In the previous chapters, it was comprehensively demonstrated that farmers and farmer communities often come up with creative and successful solutions themselves to locally encountered problems with their land, and are therefore a valuable source to fight land degradation.

A farmer innovation that falls under SCI-SLM mandate is defined by several characteristics: these were listed in section 2.4.3, and are repeated below. A good farmer or farmer community innovation\(^{19}\) enhances sustainable land management (SLM) (defined below under sub-question 3), or at least improves agriculture and prevents (further) degradation of the environment and the ecosystems services we benefit from. Where technical innovations are required to pass the ‘TEES-test’\(^{20}\) to be useful, the criteria for a ‘good’ social innovation are yet to be defined comprehensively. The latter issue will be discussed in the second section of this chapter.

The term social innovation (as part of sustainable land management) was discussed and conceptualised in chapter 3, the theoretical framework.

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\(^{19}\) The project SCI-SLM emphasises ‘the community’ as a development unit rather than individual farmers (SCI-SLM, 2009).

\(^{20}\) TEES-test: Technical effectiveness; Economic validity; Environmental friendliness; Social acceptability (Critchley, 2007: 23)
In this thesis, the working definition of social innovation reads as follows:

“The process of creating or renewing systems of social order and cooperation which govern the behaviour of a set of individuals within a given human community with the aim to improve agriculture and the environment and strengthen livelihoods”.

Now, the question is: to what extent do the findings, as presented in the former chapter, match this working definition? Can the observed efforts of the two land-based communities in Uganda be identified as a social innovation? Adding the SCI-SLM requirements for a farmer innovation, a social innovation must specifically be21 (SCI-SLM, 2009):

- A newly created or innovated system in local terms;
- Developed by the local community (a local group / individual as main source for the innovation);
- Developed with little or no support (finance or knowledge) from outside.

The definition of social innovation does not only touch upon an environmental objective but also on a developmental one: “to strengthen livelihoods” is part of the social innovation. This means: helping people to become less vulnerable to poverty, and more secure and resilient to social challenges.

In the tables below, overviews of the two communities and their specific group arrangements (summarising from the findings chapter) are presented. When the group characteristics conform to the different parts of the social innovation definition (as presented above), a ✅ is placed in the third column (‘match’). When there is doubt about the match or there is a partly fit, a +/- is shown. When the group characteristic does not match the definition whatsoever, it receives a ☒.

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21 Two SCI-SLM requirements were dropped from this list: 1.) “Technically and/ or socially innovative”, because here we solely talk of social innovativeness and assume it was identified; and 2.) “Potential to spread”, since this requirement does not directly define the quality of a particular social innovation in the concerning community.
### Table 15. Matching definition requirements (Banyakabungo)

<table>
<thead>
<tr>
<th>Definition requirements</th>
<th>Banyakabungo group arrangements</th>
<th>Match</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creation / renewal of social order (social reorganisation)?</td>
<td>Creation of a cooperative society: the breakaway from another farming society (of the former generation of farmers ‘Kabungo farmers’), with a new name and new ways of working.</td>
<td>✓</td>
</tr>
<tr>
<td>Cooperation?</td>
<td>Cooperative land management and communal ownership of land. All members can contribute and give input; everybody is invited to bring in new ideas. Major decisions are made through organised meetings and voting: the majority decides.</td>
<td>✓</td>
</tr>
<tr>
<td>Governing the behaviour of a set of individuals (management/leadership/rules)?</td>
<td>The group keeps administration of all its (official, paying) members and has appointed an executive committee. The chairman and his committee are the leaders. Rules and penalties (when breaking the rules) are recorded, as are schedules and farming functions for specific members.</td>
<td>✓</td>
</tr>
<tr>
<td>Improving agriculture and the environment?</td>
<td>The group aims to improve the quality of the grass (preventing overgrazing), looks after the environmental functions of the land, plants trees and grows crops, and watch over the cattle’s health.</td>
<td>✓</td>
</tr>
<tr>
<td>Strengthening livelihoods?</td>
<td>The group aims to maximize production so more income is generated; a garden has been installed to give members and their families the chance to grow crops; and a tree plot is managed to secure the group from a future income. Furthermore, the security of land tenure for the group brings more stability (NB: at present, the land is in judicial dispute).</td>
<td>✓</td>
</tr>
</tbody>
</table>

### SCI-SLM standards for a farmer/community innovation

| 1. Social reorganisation in local terms?                          | The foundation of Banyakabungo Cooperative Society is in fact the formation of a land-based (farmer) group: something that is not out of the ordinary, in local terms. What could be called unusual or innovative in local terms is the communal ownership | ✓     |
and collective management practices they carry out: ancient systems of communal land management have been breaking down the last decades. Nevertheless, this society proves that this system is making a comeback. These sorts of (communal) management and ownership might be successful in today’s reality once again, when re-designed to the modern present.

2. Main source of the innovation by a local person / group?

A small group of local men took the initiative, led by current chairperson Mr. Mbyemire. He in person went to the local government to inquire for the land title.

3. Developed with little or no support from outside?

The people of the community came up with the idea themselves to ask the local government about ownership of this land. No financial support or assistance from outside. The government did set a condition: the land title could only be assigned to a group; Banyakabungo could offer communal ownership and management of the land.

Table 16. Matching definition requirements (BANDERA 2000)

<table>
<thead>
<tr>
<th>Definition requirements</th>
<th>BANDERA 2000 group arrangements</th>
<th>Match</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creation / renewal of social order (social reorganisation)?</td>
<td>The association BANDERA 2000 is the creation of a ‘cultivators network’; the joining of land-dependent (farming) individuals that seek to share knowledge, materials, information, having the common goal of securing an income by production from the land.</td>
<td>✓</td>
</tr>
<tr>
<td>Cooperation?</td>
<td>No communal land ownership at this time but the group seems to have a democratic system wherein cooperation is important; important decisions are made with all the members; the executive committee and members work closely together, as well as the members who support each other and share information.</td>
<td>✓</td>
</tr>
<tr>
<td>Governing the behaviour of a</td>
<td>BANDERA 2000 has a clear organisational structure</td>
<td>✓</td>
</tr>
</tbody>
</table>
In both of the visited communities, the locals themselves founded a group, consisting of official members and a leading committee, wherein they continue to (re-) organise, adapt and develop strategies themselves according to the challenges they encounter in their environment. The two
groups each created a different kind of social innovation since they face distinctive, locally specific problems; this proves that social innovation can take many different shapes. The common denominator of a social innovation is the creation of a group, big or small, formal or informal, registered or not, wherein a common goal (often with multiple objectives) is pursued and multiple people benefit. The two land-based groups described in this research project both match all of the definition requirements, and conform to the three SCI-SLM requirements for a farmer innovation.

Sub-question II. What are on-the-ground impacts of social innovation within the communities, as observed in Uganda?

As a result of both the communities’ efforts to socially innovate, several positive impacts on the community level were identified during the fieldwork, as described in detail in the former chapter. Per community, the impacts on different levels are summarized below (listed in random order).

Table 17. On-the-ground impacts of social innovation (Banyakabungo)

<table>
<thead>
<tr>
<th>Level</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural / environmental</td>
<td>- Improved land management, decreased overstocking</td>
</tr>
<tr>
<td></td>
<td>- More and better communication with / support of agricultural advisors and extension workers</td>
</tr>
<tr>
<td></td>
<td>- Creation of a garden and a plot to grow trees</td>
</tr>
<tr>
<td>Social / cultural</td>
<td>- Security of land (NB: court case against rival society still going)</td>
</tr>
<tr>
<td></td>
<td>- Members feel like they have a bigger family: the Banyakabungo family</td>
</tr>
<tr>
<td></td>
<td>- Positive future vision among the group members: “together we can prosper”</td>
</tr>
<tr>
<td></td>
<td>- Members are invited to share ideas and to raise their voice</td>
</tr>
<tr>
<td>Economic / production</td>
<td>- More is produced from the land, since the land is better taken care of (because: many stakeholders)</td>
</tr>
<tr>
<td></td>
<td>- Sufficient manpower available</td>
</tr>
<tr>
<td></td>
<td>- Future investment: growing trees, to eventually sell the wood</td>
</tr>
<tr>
<td></td>
<td>- Profits invested in improved management of the land and cattle</td>
</tr>
</tbody>
</table>
Table 18. On-the-ground impacts of social innovation (BANDERA 2000)

<table>
<thead>
<tr>
<th>Community 2: BANDERA 2000</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Level</strong></td>
</tr>
</tbody>
</table>
| **Agricultural / environmental** | - Implementing sustainable farming practices, stimulating organic agriculture, (because: improved access to information)  
- Sharing farmer knowledge and new ideas within the group  
- Owned communal land in the past, now: members cultivate their own individual plots; all try to grow pineapples, citrus, passion- and other fruits to market these collectively or processing the fruits (e.g., making fruit juices). |
| **Social / cultural** | - Connecting of farmer households in the Busoga region  
- Women empowerment, involving and supporting the vulnerable or needy people in society, social learning initiatives  
- Members are invited to share ideas and raise their voice |
| **Economic / production** | - International marketing opportunity in the past; now: focus on local markets  
- At present: not much income for the group as a collective |

Sub-question III. What can we learn from the evidence gathered in rural Uganda regarding the relevance of including social innovation in sustainable land management?

With regard to the role and relevance of social innovation in Sustainable Land Management (SLM), several learning points can be retrieved from the primary data that was collected in Uganda.

First, it is useful to recapitulate what SLM implies (see section 2.4.1 for an elaborate explanation about SLM). Sustainable land management is defined (WOCAT 2007):

"The use of land resources, including soil, water, animals and plants for the production of goods to meet changing human needs, while simultaneously ensuring the long-term productive potential of these resources and ensuring their environmental functions".

Apart from its environmental and economic (production of goods) character, sustainable land management also touches upon the ‘human factor’. Sustainable land management therefore asks for a different attitude or approach towards agricultural development by combining "... technologies, policies and activities aimed at integrating socio-economic principles..."
environmental concerns so as to simultaneously:

- maintain or enhance productivity/services;
- reduce the level of production risk;
- protect the potential of natural resources and prevent degradation of soil and water quality;
- be economically viable;
- be socially acceptable” (Dumanski et al, 1998: 5).

Within the discourse of sustainable land management complementary focus points – technical, ecosystem, economic and social – allow a more integrated way of looking at the problem of land degradation and its many consequences for the environment and human welfare. With the acknowledgement that land degradation is a multifaceted and context-specific issue, it is increasingly realised that there is no one-size-fits-all solution to this worldwide problem. Land degradation must therefore be taken into account on local, national and regional decision-making levels, mainstreaming SLM into policies concerning the poverty agenda and other developmental objectives, particularly in the poorer regions of the world (Liniger et al., 2011).

From the data gathered in rural Uganda we can now say that both groups do show evidence of initiating social community innovation, conforming to the working definition (assuming from the sub-questions discussed above). Both groups have been created with multiple aims, of which improving the management of their land is one of the prominent objectives. Not only did the groups aim to improve the quality of land and production from their land to enhance their livelihoods, they also did so in the context of their own locality. This means that they created change with the means that is available to the local community, fitting to their specific challenges and needs. With their own types of (natural, creative, human, social, cultural, see section 3.2.4) capital, a social innovation is initiated which fits in this community’s own way of doing and organising things: an integrated approach.

Moreover, the creation of groups to promote environmental sustainability as well as socio-economic development can inspire people and awake the potential for even more ‘innovativeness’. Group dynamics could therefore be an added field of interest to look at, when talking about the potential of social innovation within the agricultural sector. Adding to this: groups stand out. It was found during the fieldwork that the observed farmer groups were indeed noticed by government institutions and programmes, and one was also in contact with other agricultural and development organisations to work on solutions together. Groups have greater opportunities to receive help where it is needed, for instance with technical assistance or access to information (the involvement of SCI-SLM is an obvious example), compared to
individuals. When many people join and raise their voice, it obviously creates more sound than one person by itself, calling out for help.

What is comes down to is that social innovation, as observed in two rural Ugandan land-based communities, makes the people stand stronger in their common efforts to improve their lives, being directly dependent on their land. Through social initiatives, people more easily have access to knowledge on land management and can share their solutions to commonly encountered problems. The creation of a group gives the individuals the feeling that they no longer have to fight by themselves; there is support and more can be achieved with more people involved; after all, two know more than one. Furthermore, social initiatives bring social challenges to the fore which hamper agricultural development, and are sometimes ignored or forgotten in the agricultural sector. Land degradation is as much a consequence of as it is a cause for poverty (and many other social problems\textsuperscript{22}): the two are inseparable in the poorer regions of the world and should be tackled simultaneously. By including social innovation one will notice that there are more forces driving problems of environmental degradation, which go beyond poverty and naturally occurring processes.

\textit{Concluding}

The participants in this research that joined forces in their local community, using their own ideas, capital and drive to improve their situation, are indeed a great untapped resource (Reij and Waters-Bayer 2001; Critchley, 2007) in the agricultural arena. The creativity and willingness of farmers to try new things in this region of the world, be it technically or socially, is something that should not be underestimated since it presents valuable insights into new and locally appropriate approaches to improve agriculture and the environment.

On the other hand, farmer innovations should not be overestimated either. An identified social innovation, possibly relevant to improve and / or stimulate sustainable land management, should be judged on some points of criteria, just like a technical innovation is checked on its true merit (using the aforementioned TEES-test). It is useful to have a closer look at what a social innovation brings about in a community, in addition to the environmental aim.

In the next section, social innovation and the criteria for a particularly ‘good’ social innovation under SCI-SLM mandate are discussed.

\textsuperscript{22} “other social problems” refer to subjects such as: gender equality, disease, social exclusion, etc. These will be treated in more detail in section 6.2
6.2 SCI-SLM methodology and social innovation standards

Sub-question IV. How – if at all – should the current SCI-SLM methodology to analyse social innovation be adjusted, refined or completed – with respect to the in-field research and the S-R-I (Sustainable, Replicable and Inclusive) test; are the current SCI-SLM requirements for a ‘good’ social innovation appropriate and sufficient?

The SCI-SLM field activities to analyse social innovation consist of several steps, and start with the selection of innovative communities by the national lead agency of SCI-SLM (by the GoU, in this case; for more information: see box 5). The ‘initial catch’ must then be narrowed down to the best innovations, since the ultimate goal of SCI-SLM is to disseminate the selected community innovations and upscaling and institutionalising SCI-SLM’s methods to stimulate and promote farmer innovations.

The ‘filtering’ of identified innovations starts by checking the innovation: does it conform to the working definition (of social innovation) (Critchley, 2007)? A farmer innovation, as mentioned before, has some requirements under SCI-SLM mandate (mentioned under sub-question I) and these must be checked as well. The innovation must fit the particular field of interest as well (ibid): is it focussing on livestock management, or improving farming practices? In the case of a social type of innovation, a fair share of the attention should also be paid to the social aim(s) of the innovation, in addition to the environmental aim(s), as discussed before.

What follows is a criteria-test, to measure the potential or true merit of the innovation at hand. For social innovation, so far the SRI-test has been applied to check its appropriateness under the SCI-SLM programme (defined by Critchley, 2007):

- **Sustainability**: can this innovation endure?
- **Replicability**: is there potential for spread?
- **Inclusiveness**: is the innovation elitist or open to all?

Compared to the ‘TEES’-test, these criteria seem under-developed and rather immature, and the questions following from the keywords cover subjects to generally. This is why here this test will be reassessed.

Furthermore, social innovation requires a comprehensive in-field analysis of a possibly socially innovative community in order to claim, for instance, its ‘inclusiveness’. At first sight, a social innovation could look like a democratic decision which benefits all people that are part of the innovation, but when one looks closer, an innovation can also socially disrupt the structure of a community, when the seemingly democratic group is actually led by a dominant, greedy or
dictatorial individual or oppressing group of leaders. The in-field activities to analyse a social innovation will be discussed first here, considering several points of attention.

**In-field analysis of a social innovation**

The current SCI-SLM field activities scheme looks like this, covering the first 5 steps:

First 5 steps of figure 11 (See section 4.3.2 for the full figure 11)

After step 1, wherein innovations are broadly identified to possibly be part of the SCI-SLM project, the SRI-test will decide whether this innovation has potential enough to work with in the future. But before one can actually apply the SRI- (or other criteria) test, the community must be characterised in more detail first. This is why step 2. and 3. should trade places, or be melted, since without a proper initial characterisation of the community’s situation and efforts, one cannot determine the extent to which the community actually is socially innovative, and conforming to the criteria that makes it a ‘good’ social innovation.

In order to find out what social initiatives have actually taken place in a certain identified community, a comprehensive in-field analysis starts with an introduction of the community to the subject-matter SCI-SLM researchers. In this first meeting, many important aspects of the community can already be identified, for instance by observing: who receives the researchers, who does the (most) talking and what information do they share in this first meeting? It is beneficial in this meeting, to have agriculturalists as well as extension workers (or the ones that firstly identified the particular community) and sociologists / anthropologists working alongside with the farmers, to discuss their efforts to improve land management: each has a different background, focussing on the different aspects of the group’s efforts which can be relevant with respect to environmental or social development. If possible, a transect walk or guiding tour can clear up the specific land management issues. For further insights into the group’s organisation and structure, which is relevant for analysis in the case of a social innovation, it is encouraged to have multiple discussions and interviews with the leaders as well as non-leaders of the particular
innovative group, as well as the opportunity to literally observe communication flows between the two, to learn about the groups’ relations, and to conclude whether social development goals are included in the group’s initiative to improve land management.

During the in-field research in Ntungamo and Kamuli district, several obstacles were met by the researcher, which prevented an in-depth understanding of power relations and access to all group members for interviews. This way, some segments of the community’s social construct were (occasionally) hindered to be fully characterised. The following points should be taken into account when looking at socially innovations in-field, in order to form a comprehensible picture of the group’s efforts.

- **Language**
  In-depth interviews about complex subjects such as cooperation methods or questions of leadership cannot be as successful when the participant (interviewee) and the researcher (interviewer) do not speak the same language. An interpreter is highly recommended to be available during all discussions and interviews, in case of language obstacles. Much information can be missed out on when clear communication lines cannot be created.

- **Culture**
  Related to the foregoing, cultural differences between the researcher and research participant can be an obstacle to the research proceedings. The local participant can be unsure about trusting the researcher since they do not share the same background or normalities, or the two could have trouble understanding each other’s position on certain topics. Religious views and the extent to how open a person is to share certain information, for instance, can create a gap in understanding. What is different, can be threatening, and for some this might be a reason to not fully participate in the research. What might attract participants about the cultural difference, on the other hand, is the option to be in contact with something unknown, and the curiosity of the participant to participate in something that is new.

- **Trust**
  Following from the former point, creating trust between the researcher and the participant is important. By being around the community or group for a longer period of time, and sharing stories and undertaking things together that go beyond the research facilitates a better relationship, so the participant will eventually share more information when he/she feels at ease while talking to the researcher.
• **Preparation and time management**
  The participants of the research should be informed in good time about the researcher’s visit so that the people of the group can be mobilised and are available to talk to when the community is visited.

• **Awareness**
  It is crucial that the community is aware of the researcher’s intentions. The research participants must have an idea why the researcher is asking these questions, and what he/she could gain from this; there must be some kind of incentive for the participant to join and make time to talk to the researcher.

Furthermore, after the analysis of the particular community innovation, the community must be informed about the added value of their undertakings. By making clear why their social innovation is important, they are stimulated to continue with their efforts to improve their land management and possibly also other development aims. Following the steps 5 - 10 (see figure 11 in section 4.3.2: SCI-SLM field activities), the group could eventually gain from their participation going on exchange visits.

**SRI-test: reassessing the key criteria for a ‘good’ social innovation**

As noted before, the current SRI-test under SCI-SLM methods is in need of a reassessment. By considering new or different factors which are important for a ‘good’ social innovation, as observed from the fieldwork in Uganda, the SRI-test will be elaborated and adjusted. In this section, first a closer look is taken at the current S, R and I criteria and their meaning, accompanied by a critical note on each of the criteria, before alternatives, refinements and adjustments will be discussed:

**S – sustainability**

**The S in the SRI-test stands for sustainability, asking: “can the innovation endure?”**

While the TEES-test first considers the technical effectiveness of the technical innovation, the SRI-test starts by asking if the innovation is sustainable. This relates to the question whether the group can continue with its efforts in the future; safeguarding their environment and group development. It is difficult to decide on first sight whether a social innovation can last long, without asking how long this social innovation has been functioning already, and what has changed (or rather: improved) since the social innovation? It is therefore valuable to add the question: when and why has this social innovation started, what changed, and decide subsequently: can (and how will) it endure?
R - replicability

The R in the SRI-test stands for replicability, asking: “is there potential for spread?”

The second criterion in the SRI-test does not directly refer to the quality or value of the social innovation itself, but instead asks about the innovation’s potential to be successful in another context. While this is a valid criterion under SCI-SLM objectives (ultimately aiming to disseminate successful local initiatives), it however does not say much about how ‘good’ the particular social innovation is, in the context of the community where it is found. This criterion could therefore be placed separately from the other criteria, which do refer directly to the social innovation and its merit for the particular community it is found in.

I – Inclusiveness

The I in the SRI-test stands for inclusiveness, asking: “is this innovation elitist in character, or open to all people”?

This criterion is one that directly refers to the true potential of the social innovation, considering the subject of social development. It asks whether the initiative excludes certain people, which is a pivotal consideration when talking about social development: by restricting certain group initiatives to people that might be ‘better’ than others, for instance by judging on the base of one’s gender, age, income or social status in a society, little chance for development is available to those that might need it most. What could be added under this criterion though, is a subdivision of types of exclusiveness (who cannot be part of the initiative) or rather inclusiveness (who can be part), for instance for women, men, or by age or income categories.

A redesign of the SRI-test is proposed by considering the criteria of the successful TEES-test, which has proved to be very useful in judging technical innovations and their potential (Critchley, 2007: 23). Repeated and fully explained here, the TEES-test consists of (ibid):

- **Technical effectiveness**: Does it work well? Is its performance as good or better than current alternatives?
- **Economic validity**: Do the benefits outweigh the costs? Is it affordable to the target group?
- **Environmental friendliness**: Are there any negative environmental impacts? Is off-site pollution or land degradation caused?
- **Social acceptability**: Is it anti-social? Has it good potential to spread to others? Does it benefit women and the vulnerable?

In the theoretical framework its was discussed that an innovative environment has several attributes. Some features of ‘innovativeness’, as suggested by Velasquez et al. (2005: as
presented in section 3.2.4) present some interesting input for the reassessment of the SRI-criteria test.

- taking measured risks,
- widespread leadership,
- a sense of going somewhere,
- having the strength to go beyond the political cycle,
- and crucially, being strategically principled and tactically flexible, as well as recognizing the resources that come from a community’s history and talents.

These features do conform with several observations from the field and are therefore taken into consideration to use in the criteria test for social innovation.

Since social innovation distinguishes itself from a technical innovation by emphasizing (changing) social systems which partly focus on underlying social problems of land degradation, the criteria must of course refer to social aspects. In addition, a ‘good’ social innovation must, just like a technical one, be cost-efficient and function well. Learning from the findings in the field and arranged by their different aspects (sustainability, economic, social and SCI-SLM), the following criteria are suggested to judge the true worth of a social innovation:

First, the group’s efforts to improve agriculture could be judged on:

- **Sustainability**
  
  When and why has the social innovation started and what has changed? can this particular approach endure (in this manner)?

  ➢ Sustainable S – criterion

From an **economic point of view**, one could add that the group’s efforts should be cost-efficient:

- **Efficiency**
  
  Do the benefits outweigh the costs? Is the group investing its financial capital wisely, and in consensus of the whole group? (in case of paid membership: are the membership fees worth the investment?) Does membership to (or just being part of) the group bring more benefits / production compared to working individually?)

  ➢ Economic E – criterion

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23 Though both can occur at the same time; there are examples under SCI-SLM (pers. comm.: W. Critchley, April 2011).
From a **social point of view**, the group’s efforts and dynamics can be judged on several aspects:

- **Future vision (sustainability)**
  Is there future vision or (step-by-step) progressiveness; is this vision sustainable and realistic?

- **Inclusiveness**
  Is the group open to all? Different classifications of people could be based on:
  - **Gender** Mixed membership or only open to men / women?
  - **Age** Is there a particular age limit or maximum/minimum age?
  - **Education level** Must one be educated to join?
  - **Health** Can one join the group in case of sickness?
  - **Income** Are the very poor or maybe very rich excluded or included?
  - **Social status** Must one have a particular achieved social status to join?

- **Empowerment**
  Does the group pay attention to developing and empowering the vulnerable members in society (giving them a voice)?; and is the group itself represented, acknowledged by others and empowering the local community (networking)

- **Leadership**
  Does the leader (or do the leaders) make decisions for the common good? (or is there self-interest?) Does the leader (or do the leaders) have good leadership qualities such as providing a good example to the group, leading them in the right way, being convincing and charismatic, having power, values, vision and showing enthusiasm?

- **Democracy**
  Do the members have an equal say and do they choose their own leader(s)?; is there a hierarchical system?; are there rules that group members must comply with?

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The social criteria of a social innovation could be adjusted to the local context, for instance by consulting the local government of the particular innovative community (i.e. the local government chiefs, extension and social workers). In Uganda particularly, the LC’s (local councils) at village, parish and sub-county level have often a good idea what particular social challenges the people in the area have to deal with, because they stand close to the local people. In Kamuli district, an invitation of the local leader at LC3 (sub-county) to the researchers (O. Piers and E. van de Ven, 09-05-2011 in Kisozi sub-county, Kamuli district) made clear that at this level, local problems are regularly reported and passed down to the government’s district level.
Depending on the size and formality of the social innovation, social criteria can be adjusted as well. When a social innovation consists of two, three up to five people only, for instance, less formal rules and systems of governance might be developed; a bond of trust can also be created wherein members of the group share earnings according to how they discuss it is fair. Critchley/Di Prima have illustrated an example of a smaller-scale social innovation (pers. comm.: S. Di Prima, 24-01-2011: SLM lecture on local innovation), in the form of a women’s floriculture enterprise: with the goal of women’s development as well as growing and selling flowers (in a sustainable, environmentally friendly manner). These smaller kinds of social innovation amongst communities are examples of initiatives that will need less time to be analysed and can more easily be spread to other communities since they are less complex in their organisational structure.

**Additional SCI-SLM criteria**

- Replicability: is this social innovation suitable or appropriate to spread to other communities?

The replicability of a social innovation presents a complex topic, since particular social innovations can be highly interrelated with the local community’s cultural values and norms and specific local needs with many people involved. It must therefore be kept in mind that the broad design of a social innovation could be disseminated, but it is not very likely to pass a ‘blueprint’ of a particular socially innovative community and its social order, upon another community.

**Concluding**

Concluding on the assessment of the SRI-test, S, R and I seem to be too general and do not cover enough specified key criteria or include critical questions to distinguish a good social innovation from a less worthy social innovation. The SER-FIELD test is proposed here, which judges a social innovation on its sustainability (endurance), economic efficiency, replicability potential, and comprehensively assesses the social aspects of the innovation, which are of importance to further improving agriculture and the social development of local people: future vision, inclusiveness, empowerment, leadership and democracy.

Of course, the proposed SER-FIELD test will be applied to the two socially innovative communities which were visited in Uganda. By briefly answering the questions under the key criteria (as presented above) in the table (19) below, the social innovation is assessed on its potential and merit for SCI-SLM.
Table 19. Applying the proposed SER-FIELD criteria test for a 'good' social innovation

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Democracy</th>
<th>Leadership</th>
<th>Empowerment</th>
<th>Inclusiveness</th>
<th>Future vision</th>
<th>Replicability</th>
<th>Efficiency</th>
<th>Sustainability</th>
</tr>
</thead>
</table>
CHAPTER 7. CONCLUSION AND RECOMMENDATIONS

This final chapter will draw conclusions from the theory, findings and discussion that were presented in the previous chapters. By doing so, the central research question will be answered: Have the group and the leaders achieved their objectives through the activities they conduct? The following questions will be addressed:

- The group is democratic in the sense that major decisions are made together and leaders are chosen by the members.
- The group is not open to all: only men (all ages, rich or poor) are principaly allowed to become a group member. Further, you must be able to contribute something in the group (work-wise), and at least bring in one cow. The group does not pay much attention to developing the members in this respect and does not seem to do much networking to get in contact with other organisations other than local government extension workers.
- The leaders do make decisions for the common good—it seems at first sight—but there cannot be said much about their leadership qualities (not enough observations of interaction in the group).
- There is a democratic voting-system in place to choose leaders and make decisions for the group. All the people involved in the group are allowed to participate in the decision making process.
- The group invests if the whole group has been informed and agrees. Membership most probably is worth the fees otherwise the group would have no members instead.

The initiative of owning a land title communally and managing collectively is well-suited to spread to other communities, where the problem of overgrazing (tragedy of the commons) exists. There are many conditions though since the group must work democratically and the LG must cooperate. The group only invests if the whole group has been informed and agrees. Membership most probably is worth the fees otherwise the group would have no members instead.

This society exists since 1997 and from that time on has registered with the LG, acquired a land title, and managed to create a currently well-functioning (they produce enough) organisation with 107 members. If the land title will be secured in the future, there is a good chance the society will endure as it is at the moment. Though they probably need some outside assistance to better prevent overgrazing.

The group is democratic in the sense that major decisions are made together and leaders are chosen by the members.

The group is open to ALL. The only condition to membership is to pay the entrance fee and you must have a good reason to become part of the group.

The group works hard to include the vulnerable members of society. The goal is to let all people be part of development, by creating human resources potential and a better quality of life. Networking is of major importance to try and create more people be part of development. By creating human resource potential the group works hard to include the vulnerable members of society. The goal is to let all people be part of development, by creating human resources potential and a better quality of life.

The group is democratic in the sense that major decisions are made together and leaders are chosen by the members.

BANDERA is a networking organisation that can only work when the leaders are putting in 100%; the group has much to thank to its leaders and their input in this respect. The group's main objective is reducing poverty by adding more value to the produce from the land and implementing sustainable farming practices: the drive of BANDERA is almost 'contagious'; getting BANDERA in touch with other communities could inspire other land-based communities.

Since not much money is coming in for the group at this moment, leaders have to work very hard (on voluntary basis) and some members are unhappy about the current situation. Still they stay in the group because there is more to gain than money: valuable farming trainings are offered and information is spread and especially the leaders are role models.

Witness Banyakabungo society

Bandera's leaders always look for new opportunities to ensure their future existence, as it has done since 1995. Future vision is surely present amongst the exec. comm. Some of the members are yet to be convinced of their future membership.

The group is open to ALL. The only condition to membership is to pay the entrance fee and you must have a good reason to become part of the group.

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Bandera's leaders always look for new opportunities to ensure their future existence, as it has done since 1995. Future vision is surely present amongst the exec. comm. Some of the members are yet to be convinced of their future membership.
and recommendations will be given to SCI-SLM, taking into retrospect the two objectives of the research project.

7.1 Conclusion: social innovation and its role in improving agriculture

The thesis started by introducing the worldwide environmental problem of land degradation and its severe consequences for millions of people whom directly depend on the land to sustain a livelihood. Focusing on the sub-Saharan Africa region and particularly Uganda, it becomes clear that the problem of land degradation and its consequences can obviously not be overcome without considering its root causes; the link between poverty (and other socially embedded issues) and land degradation is therefore quickly made.

The approach of sustainable land management came up as an answer to challenges of land degradation, prescribing integrated methods to agricultural development. Not only does this approach present technical solutions to the environmental problem; it also focuses on ecosystem functioning, pays attention to efficiency and profitability, and takes a people-centred approach. In addition, it acknowledges land degradation as a complex issue which are site-specific and cannot be solved by one straightforward solution: suitable and sustainable solutions need to be created for individual cases, fitting to the local context of the problem and, most importantly, adjusted to the people’s needs.

Furthermore, agricultural development cannot be disconnected from other development goals, even more so in poor regions where land is a pivotal resource for sustaining (rural) livelihoods and issues such as inequality and injustice are common practice. As the government in Uganda has clearly understood, social and economic development are to a large extent interrelated with agricultural development, since 85% of the Ugandan people live in rural areas of which almost half lives below the national poverty line. Moreover, of these 85%, an estimated 70% derive their livelihoods from subsistence agriculture; sustained production from the land is thus crucial for their chances of survival. Without the necessary materials, education, access to information or ownership of land, people become even more vulnerable to the consequences of environmental degradation. Therefore, for sustainable land management to become a reality, a lot can be gained in a better economic, social and political context, which can be created for instance by expanding social protection, ensuring community participation in development initiatives, and strengthening gender equality and human rights. The Government of Uganda has developed specific objectives in their latest National Development Plan (2010) that address those development issues which hamper further development goals in the important sectors, such as agriculture.
Participation and mobilisation of various stakeholders in agricultural development are becoming common practice as well. Different development organisations, programmes, scientific institutions and governments are involving people with many different backgrounds to work together and jointly discussing problems which cannot be solved in a vacuum. A multidisciplinary and multistakeholder approach of the problem of land degradation is no exception, wherein farmers, researchers and government (extension) workers, are increasingly working together in order to find fitting solutions to local people’s encountered challenges. In the process, farmers and land-based communities are now also seen as valuable resources, presenting their own solutions to challenges of land degradation, and sharing their (indigenous) knowledge and innovations. Acknowledging, identifying and spreading farmers’ initiatives is indeed one of the methods that is currently used to promote sustainable land management, and stimulating farmers and farmer communities to learn from one another.

Farmer innovation is defined (SCI-SLM): “The development of systems that are new in local terms, developed by a farmer/community using their own creativity and with little or no help (financial/knowledge/materials) from outside, which have the potential to spread”. Under the project of ‘Stimulating Community Initiatives in Sustainable Land Management’ (SCI-SLM), this research project was primarily designed to zoom into the subject of social innovation, a type of farmer innovation, and its potential for improving agriculture.

The primary objective of the research was to define social innovation as a rather new concept as part of farmer innovation methodology in the field of sustainable land management under SCI-SLM auspices, and to find evidence for its development in the field and analysing its impacts in two land-based farmer communities in Uganda. From this primary objective, the following central research question was formulated in section 1.3:

What forms of social innovation can be found under ‘Stimulating Community Initiatives in Sustainable Land Management’ (SCI-SLM) Uganda, what are the on-the-ground impacts, and how relevant is its recognition for improved sustainable land management?

For the purpose of this research project, the working definition of social innovation was drafted: The process of creating or renewing systems of social order and cooperation which govern the behaviour of a set of individuals within a given human community with the aim to improve agriculture and the environment and strengthen livelihoods. During fieldwork in Uganda, in both the visited communities social innovation was identified, conforming to the definition.
Observed forms of social innovation

The first community of Banyakabungo created a cooperative grazing land management society, with limited membership (107 members), rules applying to all members, and with a formal executive committee leading the group. The first important initiative in this group was made by a group of men seeing the need to apply for their own land title at the local government, since there were disputes with other people, all letting their cattle graze on the same stretch of (government) land. The land title was eventually assigned to the group, but had to be owned communally, being the condition the local government had set to get the title. The former government land ended up in the hands of Banyakabungo and the group decided to also manage the land collectively, with clear administration of its members (who could and could not have access to the land), and rules and measures on maintaining the land and cattle.

The collective landownership and communal management aspect is the most striking about this society, because (especially so after colonial rule in Africa, the policies of the newly independent governments, and increased market activity and population growth), these kind of ancient systems of communal land management are breaking down. The Banyakabungo group proves that collective ownership and management is still functioning, since as a group, Banyakabungo has been successful in looking after the land and producing enough milk from their cattle, and selling it on the market. This social innovation shows not only that these sorts of ancient systems may have a life if re-designed to today’s reality, but also that security of tenure is a vital element of environmental management.

The second-visited community named BANDERA 2000 (Balimi Network for Developing Rural Enterprises in Agriculture), was founded also by a small group of people, motivated to start an enterprise because they saw the need to fight problems of severe poverty and sickness in their region. When they started to make money, more people got involved in the enterprise and within a few years the network grew quickly. At its peak, the group consisted of an estimated 1000 members, spread over 3 different districts, owned a communal (partly irrigated) field and got funded by the national government and international company, and looking into the opportunity to become an “export village” for fruits. Unfortunately, the foreign company pulled out of the deal and all funding dropped. Still, the group continued with its efforts to fight poverty and helping the vulnerable people in the region by providing the farmers with information about organic farming and sustainable farming practices, with the hope to again start over and create a new enterprise related to agriculture in the local region. This group has proven to have stamina and, in addition to improving the environment and land (and production of land), aims to
improve the social situation and development of the people so that they do not keep falling in the poverty trap, and dealing with instability and sickness. A particular focus is now on the development of women and their rights, because the executive committee of the group finds that many women do the most work on the land, and they need to be empowered. Agricultural trainings, especially about growing fruits, are offered to the (currently 350) members, and plans to save up money and own communal land again are in the making. Until then, new things continue to be experimented with, to find out a way that the people can earn more, and have better access to the market.

*Impacts*

Social initiatives such as the abovementioned have proven to make a great impact on the communities, and have been important not only to improve sustainable land management but also strengthening people’s social positions and undertaking collective action. In Banyakabungo, an important impact is the security of land. Although conflict has returned about the ownership of the land, Banyakabungo as a group owns the title to the land and thus has an incentive to take care of the land. Not only did the initiative to own the land as a group benefit the land; it also united these people so they stand stronger. Moreover, the foundation of this group has lead the SCI-SLM project to notice them, as well as other agricultural extension workers did, who can occasionally provide them with advice about the quality of the grass and cattle. There is a bigger incentive to help a group such as Banyakabungo, because many people benefit when time and money is invested in them.

For BANDERA 2000, the impacts have been variable looking at its development over the years, but if we look at the current situation, it can at least be said that the people do not stand alone in their efforts to increase the production from their land by offering farming trainings and sharing information. The association of BANDERA set objectives and wrote them down in their official memorandum to – if more profits will be made – spend some money on the education of orphans and sick family members and friends. The group offers a kind of social protection for their members. Women’s development also stands high on the list of development goals in this group. The women’s group leader teaches the women (that wish to participate) how to take care of their families, how to prepare nutritious foods for their children, and how to stand on their own two feet. They are taught to be more independent from their husbands by, for instance, creating an own income by making and selling crafts in women’s groups. Awareness raising about HIV/AIDS and other life threatening diseases is also a topic within this group. The leaders want their region to develop and therefore spread information to the people so that they are no
longer ignorant. It is expected from the members to be proactive and do something with the information they receive.

**Relevance of social innovation for SLM**

Recognizing and analysing these kinds of social (farmer / community-driven) innovations are very relevant, it is discussed in this thesis. The first and foremost reason why recognition of social innovation under sustainable land management is important has to do with social challenges that hamper agricultural development goals. The most crucial socio-economic cause of land degradation is poverty in its broadest sense; including social deprivation. Poverty rates in Uganda are high in the rural areas, where no finances are often equal to no (or little) education, no social protection, no ownership and no access to information, problems of mobilisation, inequality and so on.

Learning from the fieldwork, successful social initiatives to improve SLM are very much related to improving income, but also to include and stimulate people and safeguarding possessions. Banyakabungo was motivated for instance to have tenure of land so production and good management of the land would be ensured. BANDERA 2000 was founded with the primary goal of fighting poverty and connecting people in the region to stand up and do something about their situation. Although both land-based communities were primarily identified for their group formation and management of a shared land management (and production) problem, these community efforts have proven to do more than that. The drivers of social innovation go beyond improving land management. Social innovation, as observed in the groups BANDERA 2000 and Banyakabungo, has the added value that it touches upon those social development barriers which are also in the way of further agricultural development. When land management and yields of the land are improving, social (or human) development has a better chance again; the two can give each other a push in the right direction.

Secondly, social innovation happens in groups, and in groups, when managed well, often more can be achieved than an individual can achieve on its own. Groups attract more attention as well, and do so easier and quicker than individuals. In a group, small bits of money can be put together to invest collectively and to benefit many. Lastly, being part of a group can make one feel less isolated: with a shared goal, people feel like they are not fighting the battle by themselves, and this can give more hope and strength.

**Concluding**
So far, recognising social innovation amongst land-based communities has been lagging behind the acknowledgement of technical farmer innovations within the SCI-SLM project, because it is not directly observable and time needs to be invested to look at these kinds of social processes. It must be realised that many social development issues, especially in poor regions where people depend so much on their land to sustain a livelihood, such as in sub-Saharan Africa, do inhibit the potential of improved land management and there is much to gain here. One way of approaching the problem of land degradation even more comprehensively, is by acknowledging, researching, stimulating and spreading people’s own social initiatives which have the benefit that they are already designed to local circumstances and developed with the capital available to them. Including social innovation as a type of farmer innovation under SCI-SLM will have the added value is that these observed social efforts of land-based communities can be disseminated after their identification and assessment; people can learn from other people who encounter the same problems.

Social innovation thus touches upon those social and economic issues in local societies which further restrain the potential for land to be managed in a better way. By stimulating and spreading social initiatives that are created locally, such as those observed during the fieldwork, a more integrated approach to sustainable land management is taken, wherein social, economic, environmental and technical solutions are proposed simultaneously, fitting the local context.

7.2 Recommendations

Finally, several recommendations are proposed to the SCI-SLM project, concerning analysing social innovation in-field, and adjusting the current SRI-criteria test. These recommendations thereby touch upon the secondary research aim.

1. To develop the social innovation concept as part of SLM

- First, it is crucial to develop a clear working definition of social innovation and specifying its crucial role for improving sustainable land management. If a working definition is not agreed on from the start of the programme, it will lead to confusion and discussion; this must be avoided.

- In addition to the working definition, certain SCI-SLM standards must be met for a social (farmer) innovation to be suitable for this project: listing these alongside the working definition helps to clear up from the beginning whether the social innovation is appropriate for SCI-SLM (standards such as: local development of the initiative and development with little or no help from outside).
• Subsequently, it is proposed here to develop a new criteria-test to judge whether a social innovation is a ‘good’ social innovation; a subdivision of different aspects important to sustainable land management (i.e. sustainability, economic, social, and a separate SCI-SLM criterion) are included in the SER-FIELD test:
  (endurance) sustainability
  (economic) efficiency
  (SCI-SLM objective) replicability
  (social) future vision; inclusiveness; empowerment; leadership; democracy

2. In-field research methods
• A close collaboration between researchers with different backgrounds is encouraged when analysing social innovation in the field: learning from the researcher’s own experiences:
  A local extension workers or local university student could cooperate with a (foreign) researcher, each with their own backgrounds but, obviously, with an interest in agriculture and development, to create hybrid knowledge and have new insights;
  Preferably, the local student(s) / extension worker(s) speaks the local language of the community so better communication is achieved;
  When possible, a local agricultural officer should be involved in the project so he or she is aware of the research and can continue following up on further developments in the innovative community after the researcher(s) leave the region;
• After field research, SCI-SLM forms should be used to store the collected data and share the preliminary outcomes with the national SCI-SLM team who should continue stimulating innovativeness and arranging cross-visits with other identified communities under SCI-SLM.

3. Stimulating more community initiatives in Sustainable Land Management
• More land-based communities, also in other countries where SCI-SLM is active, should be researched in detail to observe their efforts to collectively improve land management and tackling socio-economic problems at the same time;
• In order to upscale the farmer innovation methodology focussing on social innovation, more research on social innovation and its impact on improving SLM is needed, so better insights into social innovation and its relevance can be created and (possibly) additional characteristics of a ‘good’ social innovation can be distilled.

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http://www.naro.go.ug/About%20NARO/aboutnaro.htm (last visited August 2011)


## APPENDICES

### Annex 1 (section 2.1.2)

Expanded explanation of several human development issues as described in the Uganda NDP, 2010.

<table>
<thead>
<tr>
<th>- Lack of education &amp; illiteracy</th>
<th>Adult literacy rate is now 73% (World Bank data base, 2011), by far the highest illiteracy rates are amongst women (NDP, 2010)</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Disease</td>
<td>“Malaria, malnutrition, respiratory tract infections, HIV/AIDS, and tuberculosis remain the leading causes of morbidity and mortality” (p. 246). The Maternal Mortality Rate (MMR) is very high in Uganda (NDP, 2010). Life expectancy is currently 53 years (World Bank database, 2011).</td>
</tr>
<tr>
<td>- Lack of (access to) information/knowledge</td>
<td>One of the major factors which has hindered the poor from harnessing available opportunities for getting out of poverty is ignorance and lack of knowledge” (NDP, 2010: 278).</td>
</tr>
<tr>
<td>- Employment, credit</td>
<td>Almost 3 million people below to the group “the working poor”, and are mostly self-employed in the primary sector (UBOS stat, 2011).</td>
</tr>
<tr>
<td>- Inequality/ gender</td>
<td>Just some of the many issues in this facet: “The proportion of the women population reporting that they have experienced gender based violence still remains unacceptably high”, 68% of the women reported violence of this nature in 2006 (p. 279); “The majority of older persons live in abject poverty. Currently, only 7.1 percent have access to pension of whom 60 per cent are males” (p. 277); “There is a structural segregation of women into</td>
</tr>
</tbody>
</table>
low paying sectors. In the private sector women are paid lower wages than men for the same work; in 3 out of 9 identified occupations, women earn less than 75 per cent of the average male wage” (p. 205) “Considering that women constitute over 51.2 per cent of the population, it is important that they have equal access to resources and opportunities if the country is to realize the full potential of its human resources” (p. 279) “Gender based inequality limits economic growth and exacerbates poverty” (p. 280) (all quotes: NDP, 2010).

Worth noting: gender equality objects are sometimes in conflict with some regional cultural values and norms, resulting that the gender agenda is not accepted well in several sections of society (NDP, 2010).

| - Land ownership | Because of the growing population, land becomes a scarce resource, pressure on land resources has created serious socio-economic problems (land fragmentation, land disputes, etc.). Also, while most women work more on land, only 20 per cent of registered land was actually owned by women in 2009 (NDP, 2010: 279). |
### Annex 2 (section 4.2)

The (work plan) provisional timeline of the research project

<table>
<thead>
<tr>
<th>Date</th>
<th>What</th>
<th>Where</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>March 2011</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 - 30</td>
<td>Read literature on subject / preparation for fieldwork in Uganda</td>
<td>Amsterdam, NL</td>
</tr>
<tr>
<td>22</td>
<td>Hand in draft Work Plan</td>
<td>&quot;</td>
</tr>
<tr>
<td>28</td>
<td>Official start Research Project</td>
<td>&quot;</td>
</tr>
<tr>
<td>30</td>
<td>Deadline final Work Plan</td>
<td>&quot;</td>
</tr>
</tbody>
</table>

<p>| <strong>April 2011</strong> |                                                                      |                                            |
| 4/5          | Flight and drive to Kampala, Uganda                                  | AMS-NAIR, NAIR-KAMPALA                      |
|              | <strong>START FIELDWORK</strong>                                                  |                                            |
| 7/8          | Orientation in Kampala                                                | Kampala, Uganda                            |
|              | - 7&lt;sup&gt;th&lt;/sup&gt;: meet 10.00 with S. Muwaya et al. (MAAIF)            |                                            |
|              | &amp; Prof. Tenywa (Makerere University, Head Agricultural Studies)       |                                            |
|              | - 9&lt;sup&gt;th&lt;/sup&gt;: meet 11.00 with Will Critchley (CIS)               |                                            |
| 10          | Drive to Ntungamo                                                    | Departure 12.00 from Golf Hotel, Kampala.  |
| 11          | Introduction in 1&lt;sup&gt;st&lt;/sup&gt; community: Banyakabungo               | Stay-over in Sky blue Hotel, Ntungamo town |
|             | <em>Introduction in 1&lt;sup&gt;st&lt;/sup&gt; community: Banyakabungo</em>             | Banyakabungo community, Ntungamo district, Uganda |
| 10 - 29     | Perform fieldwork                                                    | &quot;                                         |
|             | <strong>Days off</strong>                                                        |Days off from 22-25 April (Easter         |</p>
<table>
<thead>
<tr>
<th>Date</th>
<th>Activity Description</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>29</td>
<td>Last day at Banyakabungo community, drive back to Kampala</td>
<td>Kampala, Uganda</td>
</tr>
<tr>
<td>30</td>
<td>Evaluate fieldwork findings</td>
<td>&quot;</td>
</tr>
<tr>
<td>30</td>
<td>Stay-over in Kampala for about a week</td>
<td>&quot;</td>
</tr>
</tbody>
</table>

**May 2011**

<table>
<thead>
<tr>
<th>Date</th>
<th>Activity Description</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Introduction in second community, Izyaniro</td>
<td>Izyaniro community, Balimi, Kamuli District, Uganda</td>
</tr>
<tr>
<td>5 - 25</td>
<td>Perform fieldwork</td>
<td>&quot;</td>
</tr>
<tr>
<td>24</td>
<td>W. Critchley arrival in Uganda/Kenya</td>
<td>Kampala, Uganda</td>
</tr>
<tr>
<td>25/26</td>
<td>Meet W. Critchley</td>
<td>Kampala, Uganda</td>
</tr>
<tr>
<td>28 - 31</td>
<td>Evaluate fieldwork findings</td>
<td>Kampala, Uganda</td>
</tr>
</tbody>
</table>

**June 2011**

<table>
<thead>
<tr>
<th>Date</th>
<th>Activity Description</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - 4</td>
<td>Finalising fieldwork in Uganda</td>
<td>Kampala, Uganda</td>
</tr>
<tr>
<td>5 – 20</td>
<td>Break / travelling</td>
<td>Uganda/Tanzania</td>
</tr>
<tr>
<td>21</td>
<td>Flight back (Nbo - Ams)</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>Arrival, back home</td>
<td>Amsterdam</td>
</tr>
<tr>
<td>23 – 30</td>
<td>Prepare presentation on fieldwork</td>
<td>Netherlands</td>
</tr>
</tbody>
</table>

**July 2011**

5 JULY: presentation (MTM & CRITCHLEY)

Write thesis

throughout

E-mail / personal contact with W. Critchley & J. Bouma about feedback on thesis

**August – September 2011**

Write thesis

during

20 | Deadline | thesis: draft version | W. Critchley & J. Bouma |
31 | Deadline | thesis: final version | |

Final thesis due: November 29, 2011
Annex 3  *(section 4.3.2)*

SCI-SLM Characterisation forms A, B and C  
(The first three forms (A, B and C) concern Banyakabungo society. The second set of three forms concern BANDERA 2000).

**SCI SLM Summary Baseline Data - Form A**  
**Characterisation of Social / Community Initiative/ Innovation**

**BANYAKABUNGO TWIMUKYE CO-OPERATIVE SOCIETY**

Date: 19 April 2011  
Team members: Eefje van de Ven, Olaf Piers, Moses Sabiiti  
Interviewee: Richard Mbyemire (location: Katinda Trading Centre) see also form C

<table>
<thead>
<tr>
<th>Name of community/location started when?</th>
<th>Banyakabungo (BK) Twimukye Co-operative Society</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Location:</td>
</tr>
<tr>
<td></td>
<td>Kyondo (location of communal land),</td>
</tr>
<tr>
<td></td>
<td>Mutojo (village), Kabungo Parish.</td>
</tr>
<tr>
<td></td>
<td>Subcounty Rweikiniro.</td>
</tr>
<tr>
<td></td>
<td>County Ruhaama,</td>
</tr>
<tr>
<td></td>
<td>Ntungamo district.</td>
</tr>
<tr>
<td></td>
<td>All members in same parish, but different cells.</td>
</tr>
<tr>
<td></td>
<td>Started: 1997, by mr. Richard, he went to ask about the land (at local government). But he was not the first LC1/Banyakabungo chairman.</td>
</tr>
<tr>
<td></td>
<td>220 members at the time. Many left.</td>
</tr>
<tr>
<td></td>
<td>Reasons to leave: failed to comply with society’s bylaws, and paying contribution. (on of the major bylaws: members complying funds to society (to process land title, plus money to fence society’s land). Also, each person had to buy a share and contribute equally, and some members did not like that).</td>
</tr>
<tr>
<td></td>
<td>In year 2000 most formers members left.</td>
</tr>
<tr>
<td></td>
<td>- Case in court about: Kabungo famers, and Banyakabungo Society. Two different land owner groups But the land is BKs’.</td>
</tr>
<tr>
<td></td>
<td>- Good relationship with each other, say hi.</td>
</tr>
<tr>
<td></td>
<td>When it comes to land possession issues, not friends. Just a few members want to grab their land, not all.</td>
</tr>
<tr>
<td></td>
<td>- Other society signed land title for them.</td>
</tr>
</tbody>
</table>
|                                        | - Positive about the outcomes (of case in...
Composition of community (present, April 2011)

- **Male/female?**
  - 107 members (full members).
  - Men.
  - All represent households.
  - Widows are also members (representing their deceased husbands)

- **Open membership?**
  - Not right now. Membership is currently closed. Only option: buy a share of an existing individual that is already in there. Equal sharing. If you want to buy a share, “you buy the share of your neighbour”. 107 is the number they have, no more (right now).

- **Functions?**
  - The members have specific functions, such as communal tree planting, or repairing fences, tasks divided under members. No specific functions for women mentioned.
  - When you refuse to work, you pay a fine.

Technical innovation ........../ Social innovation

- **Genuine community?**
  - Yes, Banyakabungo = society, group of people owning land together. Registered at local government institution.

- **Their own social innovation? (managing as a group...)**
  - Yes, group of a few men came together and decided to own the land collectively (but the government encouraged this as well).

- **No/little outside assistance? (money/assistance/advice)**
  - Little: advisory services from district agricultural workers

- **SRI test compliant? (sustainable, replicable, inclusive)**
  - Inclusiveness? ..... Seems like men mainly rule the group and make the decisions, ladies overall are not representing the household. Only when the husband dies she can represent the household.
  - No clear idea to which extent the women’s ideas/needs are included.

SOCIAL INNOVATION

a. **Type: category and brief description**

- **Category:** community initiative; managing the land collectively (as a group)
  - 1 land title, on the name of BK group. The chairman, secretary and treasurer sign in name of society.

- **Short description:** coming together of a (sub-)group of farmers, deciding to own the land collectively and produce more from the land (while taking care of the land). All contribute with certain tasks and making payments.

b. **Associated SLM technology**

- Plan: Rotation of cattle (prevent overgrazing). 11 paddocks, fence it, and 10 parts is cattle, 1 cultivate.
- Separate garden (cultivating, food crops)
- Tree planting (for future, wood)
<table>
<thead>
<tr>
<th>Land initiatives within the group?</th>
</tr>
</thead>
<tbody>
<tr>
<td>What has been done since BK exists?</td>
</tr>
<tr>
<td>Improvements? How?</td>
</tr>
<tr>
<td>Who came up with ideas?</td>
</tr>
</tbody>
</table>

- Since land is in conflict, they put a caveat (court order) – can’t develop it further right now.
- Tree part: intend to use it for future, when trees grow old and big, they can sell the wood (future investment).
- No longer looking at cattle alone.
- Major objective paddocks: rotating cattle, preventing overgrazing.
  - 150x150 m. 10 paddocks, and 1 half the size.
- First, 800 herd of cattle, but this became a problem (grazing too much) it did not fit, carrying capacity too high.
- Decided to cut to 400. Each member can bring 4 cattle. Found out that mixing the cows is difficult, difficult to manage the exotic (English) cows (demand a lot of maintenance).
- Challenge: teeks.
- Ankole species are most resistant to local climate, are stronger. Plus have to look at market for these cows.
- There are a few cross breedings, keep the resistant ones. They’re more difficult to take care of.
  - No more land can be acquired.
  - In dry season the cattle grazes at night.
  - Swamp helps for watering the animals (during dry season). Use it because they are neighbors of the swamp but in harmony with national wetland rules.

<table>
<thead>
<tr>
<th>c. Is the associated SLM technology an innovation?</th>
</tr>
</thead>
<tbody>
<tr>
<td>....... (need to be check by agriculturalists)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>d. When was the social innovation started?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997, BK society developed</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>e. What was the trigger for/motivation behind the social innovation?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initially, as a parish, the whole land was used for grazing, but the rival society, somehow started preventing people from letting cattle grazing on ‘their’ land.</td>
</tr>
<tr>
<td>Richard came up with the idea to separate from Kabungo society. He went to the ministry of land in Mbarara, found out that there was a piece of land available from the government, and he got the land title. They were actually advised to go and process it (as a group). Title registered in name of Banyakabungo group.</td>
</tr>
<tr>
<td>As an individual, could not let your cattle graze in that land, only if you became a member of BK, so that is why most became a member of BK.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Idea to manage TOGETHER</th>
</tr>
</thead>
<tbody>
<tr>
<td>More than 10 people came together (amongst others, David –vice chair- and Richard M. –chair-) and started</td>
</tr>
</tbody>
</table>
a cooperative society. Some are still there, some left.

The condition to get the land title, they had to become a cooperative society.

Registered at district, Ntungamo (ask Mr. Onesemes for details here)

<table>
<thead>
<tr>
<th>f. Who was the main source of the social innovation?</th>
<th>Richard and co... (group of about 10)</th>
</tr>
</thead>
<tbody>
<tr>
<td>where did the idea come from?</td>
<td>Originated from their own mind, their own thinking after being denied access to land by others, the rival society.</td>
</tr>
<tr>
<td>* visit/travel outside</td>
<td>BK = rebirth of Kabungo farmers. Kabungo farmers was original society. Breakaway from them, generation before was part of Kabungo farmers.</td>
</tr>
<tr>
<td>* imagination/ own idea</td>
<td>Before, it was 110 hectares. Kabungo famers, go to land office, got title for 400 hectares.</td>
</tr>
<tr>
<td>* research</td>
<td>BK “Came and captured this one”, says Richard M. (the land that they have now): 186,3 hectares.</td>
</tr>
<tr>
<td>* extension</td>
<td>BK land, they have control of it.</td>
</tr>
<tr>
<td>* other.....</td>
<td></td>
</tr>
</tbody>
</table>

AND: to what extent do all members have a say?

All members big stake in future. Open vote. Together decide what to do with the land. Executive Committee makes plans, and bring plans into bigger committee. (9 ppl) sit and plan for rest of the members. Call a general meeting occasionally /when needed and ask opinion of all members.

When a member has a new idea:

You find at times some members can have an idea, how to manage the land or come up with a technical improvement. This member can approach the chairperson, and the ex. commt. discusses it. Take it back to members when they meet. Put to vote, majority wins. Ideas from others are put into minutes, and always take it to all members.

g. Is it:
   - A new social arrangement? See above, rebirth of former farmers society.. (Kabungo, generation before)
   - A modified tradition?
   - Other?

h. SRI – test .......
   - Sustainable (can it endure)
   - Replicable (spread?) - S, endurance: good. but court case is an obstacle right now.
   - Inclusive (elitist or open?) - R, spread: learn from collective management.
   - I, seems open in terms of when you can contribute, you can enter the group. Women seem to fulfil a lesser role.
<table>
<thead>
<tr>
<th>i. Extra investments?</th>
</tr>
</thead>
<tbody>
<tr>
<td>- labour?</td>
</tr>
<tr>
<td>- cash?</td>
</tr>
<tr>
<td>- outside assistance? (cash/advice)</td>
</tr>
</tbody>
</table>

- Mentioned:
  - Environmental group (government): NEMA

  NEMA; what did they advise them?
  - Basically about management of wetlands. Where they need some cultivation, and some on tree planting.

  Workshop 2006 at Kampala, to manage the land, to plant these trees (*pinus patula*).

  - Assistance: government with some knowledge sharing, advise on managing wetland
  - planting trees: own money.

  See other ppl paddocking, see the reason why (it works).
  Also, people from Ntungamo gov’t advised them to make paddocks. Advice from land offices, and from agricult. & livestock dept. (Ntungamo district).
  - Used their own money, no financial aid from outside.

<table>
<thead>
<tr>
<th>j. Benefits?</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Social/cultural</td>
</tr>
<tr>
<td>- Production</td>
</tr>
<tr>
<td>- Economic</td>
</tr>
<tr>
<td>- Environmental</td>
</tr>
</tbody>
</table>

- Big problem: case (in court).

  Production: same as when started, “it is enough”.

  Quality of grass, same quality as when they started, he (Richard M.) thinks.
  (others say it is better now, opinions differ on this matter)

  Cultural: benefits when working together as BK, seen the benefits as working as a society, hope to win the case.
  - Does the BK society feel as a family? **yes**, of course.

  Environmental: recognizing problems, overgrazing main focus.

<table>
<thead>
<tr>
<th>k. Problems faced?</th>
</tr>
</thead>
</table>

- When there are problems: who to approach?
  - Major problem; court case (land ownership conflict).
  - Thiefs, stealing production from *shamba* and cutting down trees.
  - Production wise: during dry season of course low(er) production.
  - Well fed local –ankole- cattle 2/3 liter per cattle. “Look at quantity, before quality”. Confident about
the milk. Their “… Milk is very sweet, more sweet than others”.
- deciding which species to have, watching the local market and the people’s needs. Could use some assistance in this matter.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
</table>
| l. Spread of initiative? | - to how many other communities?  
- method of spread? (communication) |
| m. Current links with extension/research/NGO(s)? | NAADS/extension workers |
| n. Documentation? | Administration? |
| Future vision for BK? | - Plan is: divide piece of land, amongst themselves, so each one can have a plot (an acre more or less per member).  
- Leave the trees for society (future investment, sell wood).  
- Give all members one plot, near the road, and develop the area into a trading centre.  
- Members structure a centre. Houses for the members, make some shops maybe..  
- Set up a bank so people can manage their money and investments/loans better. |

SCI SLM Summary Baseline - Form B - Characterisation of Community

**Banyakabungo grazing land management**

Interviewed: Mbyemire Richard

Date: 19 April 2011  
By: Eefje van de Ven, Olaf Piers, Moses Sabiiti

**Name of community/location:**  
Banyakabungo Twimukye Co-operative Society / Kabungo, Ntungamo district, Uganda

**Social initiative/innovation**  
Details of overall community
<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Type of organization</td>
<td>Crop/livestock farming group</td>
<td></td>
</tr>
<tr>
<td>b. Official status? (registered etc.)</td>
<td>Registered on district level</td>
<td></td>
</tr>
<tr>
<td>c. Composition of community</td>
<td></td>
<td></td>
</tr>
<tr>
<td>i. Number</td>
<td>107</td>
<td></td>
</tr>
<tr>
<td>ii. Male/female</td>
<td>M= 93; F=14</td>
<td></td>
</tr>
<tr>
<td>iii. Age structure</td>
<td>30 – 70 year</td>
<td></td>
</tr>
<tr>
<td>d. Management structure</td>
<td>Executive committee; cooperative management</td>
<td></td>
</tr>
<tr>
<td>e. When was it started?</td>
<td>1997</td>
<td></td>
</tr>
<tr>
<td>f. Was someone local responsible for starting this community organization?</td>
<td>Yes, Mr. Mbyemire and co. (group of about 10)</td>
<td></td>
</tr>
<tr>
<td>g. Was an outside agency responsible for starting this community organization?</td>
<td>No.</td>
<td></td>
</tr>
<tr>
<td>h. Is the community linked to other communities? If so, how?</td>
<td>No.</td>
<td></td>
</tr>
<tr>
<td>i. Benefits of the initiative to the community?</td>
<td>Big problem: case (in court).</td>
<td></td>
</tr>
</tbody>
</table>
| 1. Production? | Production: same as when started, “it is enough”.
(economic: need to ask David, vice chairperson) |
| 2. Economic? | Quality of grass, same quality as when they started, he (Richard M.) thinks.
(others say it is better now, opinions differ on this matter) |
| 3. Environmental? | Cultural: benefits when working together as BK, seen the benefits as working as a society, hope to win the case.
- Does the BK society feel as a family? yes, of course. |
| j. What problems are faced (organizationally / technically / other?) | Need help managing the cattle and the land, and improving security from land (need to place fences). |
**SCI SLM Summary Baseline Data - Form C (TYPICAL MEMBER)**

**Characterisation of Community Member**

**Name of community/location: BANYAKABUNGO (grazing land management)**
Details location: Kyondo (location of communal land), Mutojo (village), Kabungo Parish. Subcounty Rweikiniro, County Ruhaama, Ntungamo district.

Date: 19 April 2011
Team members: Eefje van de Ven, Olaf Piers, Moses Sabiiti

**Details of community member / representative of the community**

<table>
<thead>
<tr>
<th>a. Name</th>
<th>Mbyemire Richard</th>
</tr>
</thead>
<tbody>
<tr>
<td>b. Address</td>
<td>Katinda Trading Centre</td>
</tr>
<tr>
<td>c. Age</td>
<td>50</td>
</tr>
<tr>
<td>d. Male / female</td>
<td>male</td>
</tr>
<tr>
<td>e. Involvement/role in the initiative</td>
<td>Chairperson; one of the initiators of Banyakabungo</td>
</tr>
<tr>
<td>f. Status in family?</td>
<td>Husband; provider</td>
</tr>
<tr>
<td>g. Status in community/ relative resource ownership</td>
<td>Chairperson, has ‘equal shares’</td>
</tr>
<tr>
<td>h. When joined the community?</td>
<td>1997</td>
</tr>
<tr>
<td>i. Education level?</td>
<td>Primary 7</td>
</tr>
<tr>
<td>j. Main occupation</td>
<td>Private business: owns a bar</td>
</tr>
</tbody>
</table>

**k. Current benefits of the community initiative to this individual?**

1. **Production**
   - 3 bags of unshelled g-nuts, 1 bag of shelled g-nuts (every season).
   - Land under SLM: 186.3 Hectare (this is all BK land)
   - Economic:
      * Every season benefits:
        1 kg of g-nuts = 2.000,=
        100 kg x 2000 = 20.000,=
        Costs: planting = 18.000,=
        Land: 20 m / 80 m, hire = 20.000 per season
        1st and 2nd ploughing = 100.000,=
        **BALANCE:** benefits – costs = 200.000 – 138.000, makes 62.000,= per season
## BANDERA 2000

**Date:** 17 May 2011  
**Team members:** Eefje van de Ven & Olaf Piers

**Interviewee:** George Mpaata, chairman of BANDERA 2000

### Name of community/location

**started when?**

- **BANDERA 2000:** Balimi Network for Development Enterprises in Rural Agriculture 2000  
- **Location:** Narimaya (village), Nawanyago (parish), Nawanyago (subcounty), Buzaaya (county), Kamuli (district)  
- **UGANDA**  
- **Started:** 2000  
  (formerly known as SDC in 1995 - 1999) by:  
  Mr. Mpaata George and others (group of 6)

### Composition of community

**Male/female?**

- **350 members**  
  - 190 female; 160 men  
  - Youngest: 22; eldest: 70

**Open membership?**

- You cannot just enter: you have to apply by talking to the committee. Sort of interview you have to pass to see if he or she can work with the organisation. Questions asked:
  - Why you want to join?  
    *you have to got a good reason to become a member. (Most reply they want to market their products (grown for the market).*
  - Enquire about the person’s behavior.  
    *Must be safe. Don’t want to be disturbed by somebody who shakes things up. They also have to contribute something, relationship should be interactive, not one-sided. (When bad behavior is observed: can interact with the disciplinary committee. “You can be a member after you have grown up” (can be member or non member). People that misbehave, like abusing alcohol)*

Example: -Ali >> in charge of disease and pests.  
-Another member (name?) >> in charge of marketing
**Special functions/duties of members?**

- Beatrice >> disciplinary committee (outside committee)
  - Women’s leader: Tappy
  - Orphans leader: Betty
  - Logistics: Patrick
  - Production: George (to see that the products are there, quality /quantity check )

All mixed, all equal members.
Equal rights “Omwenka nonkano”

**Females role?**

- Beatrice

**Technical innovation ______/ Social innovation**

**Social**

**ELIGIBILITY CHECK LIST**

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Genuine community?</td>
<td>Yes. Genuine organization of farmers. BANDERA 2000: registered as company limited by guarantee</td>
</tr>
<tr>
<td>Their own social innovation? (managing as a group...)</td>
<td>Yes, learned from seeing how collective management works well in former job (George Mpaata)</td>
</tr>
<tr>
<td>No/little outside assistance? (money/assistance/advice)</td>
<td>No. But looking for assistance (funding/knowledge from government/NGOs)</td>
</tr>
</tbody>
</table>
| SRI test compliant? (sustainable, replicable, inclusive) | - Sustainable, yes since they continued as a group after ‘failure’ to establish a processing plant and improve market access.
- Replicable: most probably
- Inclusive: likely to be very inclusive, having their emphasis on gender empowerment, and including and supporting the poorest, sick, vulnerable (orphans and widows) members of society |

**SOCIAL INNOVATION**

**o. Type: category and brief description**

**Category:** community initiative (farmer organization)

**Description:** BANDERA 2000 group is established to create a better position on the (fruit/vegetable) market for (resource poor) individual farmers.

It is founded by a small group with one obvious leader that has a bright future vision with the most important goal to abolish poverty and sickness and strengthen (or stabilize) peoples’ livelihoods by sharing knowledge about cultivation of land (their primary source of income) and offering social support where it is needed.
| p. Associated SLM technology / technologies | - tree planting  
- water harvesting  
- mulching  
- applying manure  
- cover crops / legumes  
- trenches (water harvesting)  
- crop rotating  
- mixed crops  
- budding/grafting |
| --- | --- |
| Land initiatives within the group? | Ideas come up from all members; and everybody can propose their ideas.  
- Look into it when they’re together, general meetings are called.  
- One member, for instance: came with an idea, she told that when they were send off the land, they can offer a room for an office. Member initiatives are appreciated.  
- Fruit flies problem: no money for nets, so somebody came up with the idea to mix sugarcane with herbicide, in order to kill insects, put in a bottle. Hang up in tree. Sharing these ideas is expected from members. |
| What has been done since BANDERA exists? Changes? How? Who came up with ideas? | // See timeline for full development since start |
| q. Is the associated SLM technology an innovation? | .......... must be assessed by land specialists |
| r. When was the social innovation started? | 1995 (first creating SDC, later changed to BANDERA in 2000) |
| s. What was the trigger for/motivation behind the social innovation? | - To earn money and fight against poverty, Export idea motivation for them. Marketing is a big motivation (providing an income)  
- There is achievement, because they’re still making some money. Slowly though. But children are going to school, and through nutrition live better lives.  
- Future mindedness (GEORGE) |
<p>| t. Who was the main source of the social innovation? | George Mpaata, to come together and work together. Fight against poverty and hunger and to look ahead; one voice (farmers voice) to access market. Even to get a donor. “When you’re alone, everything is more difficult” (George). |</p>
<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>where did the idea come from?</td>
<td>23-12-1993 when George met with some people working in town, but they did not help the community. He (George) had a vision but didn’t know how to write it up. He asked the (educated) people in town to write a document (structure of an organization) with him. Come together to help each other in the village. They welcomed his idea... that is how they started SDC. (more educated) people in town wrote a constitution for him.</td>
</tr>
<tr>
<td>* visit/travel outside</td>
<td>Interested in collective action: to benefit many people. But had somebody to document for him because he lacked education.</td>
</tr>
<tr>
<td>* imagination/ own idea</td>
<td>“If a blind person works together with an able person, it can help”. * I have hands and legs, I can work. But you, you have eyes(can write). Work together, and we can achieve. * Sensitize (make aware) and influence the community but needed administrative backbone.</td>
</tr>
<tr>
<td>* research</td>
<td>Seeing people work together and how it benefits them (in town). Came back (to community), and seeing the people working alone. Heard about programme of helping communities. This inspired him. Learned that when people act together, “...they can achieve” (George). Because they get knowledge and assistance. Then in 1982 George became a secretary of group in church, so when you look around and see that: “why can’t we from an organization” and work together.</td>
</tr>
<tr>
<td>* extension</td>
<td>Everybody can coin their ideas and discuss them.</td>
</tr>
<tr>
<td>* other.....</td>
<td>By board committee (founders)</td>
</tr>
<tr>
<td>To what extent do all members have a say?</td>
<td>Inform committee and discuss it in a bigger group (general meeting)</td>
</tr>
<tr>
<td>How is the executive committee chosen?</td>
<td>New social arrangement: It is a farmers group registered as company limited by guarantee; collection of farmers to share knowledge.</td>
</tr>
<tr>
<td>When a member has a new idea:</td>
<td>SRI – test ......</td>
</tr>
<tr>
<td>u.  Is it:</td>
<td>- sustainable: only when members stay in this formation</td>
</tr>
<tr>
<td>- A new social arrangement?</td>
<td>- replicable:</td>
</tr>
<tr>
<td>- A modified tradition?</td>
<td></td>
</tr>
<tr>
<td>- Other?</td>
<td></td>
</tr>
<tr>
<td><strong>Empowering / progressive?</strong></td>
<td></td>
</tr>
<tr>
<td>-------------------------------</td>
<td></td>
</tr>
<tr>
<td>- Inclusive (elitist or open?)</td>
<td></td>
</tr>
<tr>
<td>- inclusive: yes, open to males/females, sick, poor, ... but need to pass 'interview' to become member. Need good motivation.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>w. Extra investments?</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>- labour?</td>
</tr>
<tr>
<td>- cash?</td>
</tr>
<tr>
<td>- outside assistance?</td>
</tr>
<tr>
<td>(cash/advice)</td>
</tr>
<tr>
<td>No outside investments to start the community initiative.</td>
</tr>
<tr>
<td>Subscribe as a NGO, little money. Leased the money to register, and support for transport.</td>
</tr>
<tr>
<td>Once you become a member, you pay. Now: member by commitment. Pay a commitment fee, 10,000 UGX. Target: to use what you learn. When you cannot be committed by the knowledge that is given to you, they have to work to benefit.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>x. Benefits?</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>- Social/cultural</td>
</tr>
<tr>
<td>- Production</td>
</tr>
<tr>
<td>- Economic</td>
</tr>
<tr>
<td>- Environmental</td>
</tr>
<tr>
<td>SEE FORM B</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>y. Problems faced?</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Who do members approach when they face a problem?</td>
</tr>
<tr>
<td>See FORM B</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>z. Spread of initiative?</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>- to how many other communities?</td>
</tr>
<tr>
<td>- method of spread? (communication)</td>
</tr>
<tr>
<td>Mouth to mouth and observation that members were making money. Grew fast. Now shrunk again, after losing Izyaniro field...</td>
</tr>
<tr>
<td>Looking for more members: once getting support to put into place processing equipment could be easier to mobilise people.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>aa. Current links with extension/research/NGO(s)?</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>NOGAMU (now nonmember, because no money for membership)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>bb. Documentation?</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration?</td>
</tr>
<tr>
<td>Future vision for BANDERA?</td>
</tr>
<tr>
<td>Documenting most visits they got (government / agricultural development organisations), trainings they received, meetings they have. Administration seems structured, with division of task in ex. committee (incl. minutes)secretary, treasurer etc.). See picture 1. below.</td>
</tr>
<tr>
<td>Future vision: to own communal land again and focus on growing fruits to collectively sell them on the market.</td>
</tr>
</tbody>
</table>
SCI SLM Summary Baseline Data - Form B - Characterisation of Community

BANDERA 2000   Interviewed: George Mpaata

Date: 17 May 2011
Team members: Eefje van de Ven, Olaf Piers

Name of community/location:
BANDERA: Balimi Network for Development Enterprises in Rural Agriculture 2000
Narimaya (village), Nawanyago (parish), Nawanyago (subcounty), Buzaaya (county), Kamuli (district)  UGANDA

Social initiative/innovation  Details of overall community

| a. Type of organization | Company limited by guarantee. (former CBO)  
| | - Development (agriculture, trainings,  
| | support, vulnerable people, women  
| | empowerment) organisation  
| | See: their constitution |
| b. Official status? (registered etc.) | Company ltd. By guarantee  
| | Registered with registry of companies Uganda  
| | In Kampala |
| c. Composition of community | 1. 350 members  
| | 2. 190 female 160 men  
| | 3. Youngest: 22; eldest: 70 |
| d. Management structure | Executive committee  
| | see ‘organisation structure’ document |
| e. When was it started? | 1995 SDC  
| | 2000: Bandera  
| | By 2000, with our friend Godfrey BANDERA  
| | (balunga namaganda development relief  
| | association) by then.  
| | community trust (by that time), NGO.  
| | To develop only the village were the founder  
| | was born.  
| | wanted to come and work together. Tried to  
| | show that he has donors outside, but no time to  
| | be in the community.  
| | Asked George to link up. But the men got away  
| | with the funding, forget about that man. Bad  
| | intentions.  
| | Changed to BANDERA (with new abbreviation  
| | meaning) 2000 because now they were linked to  
| | that community, but extended so they added  
| | 2000. And they elaborated the practices. |
| f. Was someone local responsible for starting this community organization? | Mr Mpaata, that’s why he’s still the chairman  
| | (smiles). He tries “ to look very very very far”.  
| | Everywhere he looks, tries to pick it up and |
g. Was an outside agency responsible for starting this community organization? Support from outside: local government, helped. They lend them irrigation machine. However, was taken back. Failure to get another land. Then from 2006-7, work with NGO like Nogamu (really helped us) trained the farmers (organic farmers, compost, processing)

h. Is the community linked to other communities? If so, how? Yes, KULIKA organization. Work with them, learn them sanias (SIONEZE).
- Smaller farmer groups they visit them and get ideas, also they visit them.
- Linking some extension workers
- Naads programme (however didn’t support them ‘as they were thinking’ (as wished) gave them advice on fertilisers
- Also, work with SG 2000; train farmers. National organization.

i. Benefits of the initiative to the community?
1. Production?
2. Economic?
3. Environmental?
4. Social/cultural?
Yes, benefit in production. I say that because when we train them, introduce them seeding materials, they benefit because on harvesting they sell their products and use their own money.

Also, earn more money because of BANDERA > give them more knowledge. And Thru knowledge they get money.
Crop information, like tomatoes, cabbage…(…)

Environmental: yes, of course we try to train them about the environment. Troubles with drought, instead of plant cactus, try this or that. When you plant this it will help you in many ways. To get money, food security.
Try to educate to the farmers on soil protection, water harvesting etc.
Before Bandera, they just leave the land as it is.

Social: think yes, because we came together, train them to utilize your land, plant vegetables, minimize costs of the living.
- Work in groups, females also to empower (making mats, baskets etc.)
- Plan is there: to save money for vulnerable ppl. Try to plan to take a percentage of the production. sales

j. What problems are faced (organizationally / technically / other?) Organization: problem of financial scarcity. “With money you can solve all problems, but
not death"
>> Land can be bought, communication will be easier, transport for monitoring. Is the most important, acc. to George.

Human capital: happy with the executive’s work. They commit themselves, they sacrifice (like George himself does as well)
Did not pay them transport. Try to see their best to reach. They sacrifice (leaders of BANDERA) for communities’ welfare.
He’s happy somehow. However, some gaps; some do not attend meetings (because of lack of transport and others).

- Yes, technically, mostly things are overlooked. Need allowance for things. Some things are missing, but don’t know. Some things I cannot see. Can’t see if it’s perfect. (he is not sure about technical side of land management, how well they do...) • Need more exchange visits to see what they’re missing and how to improve. “Trying never ends”.

Challenges:
- Funding is a major one
- Marketing, getting good prices for the products
- Processing/packing materials
- Evaluation/monitoring means (transport)
- Training facilitation/workshops and to train the facilitators (under finance also)
- IF possible, to get some allowances to the management (incentives are necessary)
**SCI SLM Summary Baseline Data - Form C (TYPICAL MEMBER)**

**Characterisation of Community Member: GEORGE MPAATA (BANDERA 2000)**

Name of community/location: BANDERA 2000 farmer group  

Narimaya (village), Nawanyago (parish), Nawanyago (subcounty), Buzaaya (county), Kamuli (district)  
Date: 17 May 2011  
Team members: Eefje van de Ven, Olaf Piers

**Details of community member / representative of the community**

<table>
<thead>
<tr>
<th>l. Name</th>
<th>George Mpaata</th>
</tr>
</thead>
</table>
| m. Address | BANDERA OFFICE; (see above)  
No po box yet.  
Tel. nr. GEORGE, 2 lines:  
major line is MTN.  
07 72 66 43 43  
He was born in Kiyunga, has always stayed in Kamuli district. |
| n. Age | 52 years |
| o. Male / female | male |
| p. Involvement/role in the initiative | Chairperson; executive director of BANDERA 2000 group |
| q. Status in family? | Married; 12 children |
| r. Status in community/ relative resource ownership | - Land: 1,5 acres  
- Currently rents his house |
| s. When joined the community? | 1995  
(back then organisation was named SDC) |
| t. Education level? | Primary 5 (until age: 12) |
| u. Main occupation | Farmer, sensitization/mobilizing of community (voluntarily) |
| v. Current benefits of the community initiative to this individual? | His benefit from the community, as an **initiator**, is the **honor** of a longer function as **leader**; leads him to meeting many people and from different countries.  
Benefit also production wise since he is a member, and he is together in this group. **Does not** have more benefits than others.  
Pays his own learning programmes, but some are for free (for example, agricultural trainings catered by an organisation that asked you and they give you some transport funds). |
| 5. Production |  
6. Economic |  
7. Land under SLM (ha)? |  
8. Other? |
Annex 4 (section 5.1.2)

Photos of the original timeline, created by *Banyakabungo society* members David Poyarukauge and John Matsiko

Annex 5 (section 5.1.7)

Banyakabungo’s land: maps of the situation in 1997 (‘before’ drawing) and 2011 (‘now’ drawing) by David Poyarukauge

Annex 6 (section 5.2.2)

Photos of the original timeline, created by *BANDERA 2000* members Mpaata George, Baligenya Patrick Tigawalana Betty and Kintu Tappy.

Annex 7 (section 5.2.4)

Copies/photos of *BANDERA 2000*s Memorandum of Association (pp. 2-5): all the 35 objectives for which the association is established.