

Sveriges lantbruksuniversitet Swedish University of Agricultural Sciences

Faculty of Natural Resources and Agricultural Sciences

"It's like liberation"

A study of agricultural knowledge dissemination among small-scale farmers in Tanzania

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"It's like liberation"

- A study of agricultural knowledge dissemination among small-scale farmers in Tanzania

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- En studie i agrikulturellt lärande bland småskaliga jordbrukare i Tanzania

Hanna Bjärnlid

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Abstract

The following essay is a descriptive and analyzing study in how the local Tanzanian NGO MVIWANYA works to disseminate sustainable agricultural technologies to the farmer households in Rorya District, Mara. It also presents and analyzes the reception and impacts these new technologies have on the households. Information was gathered during two weeks of field work at the organization in Tanzania. It was conducted empirically through interviews with and observations of small-scale farmer members of MVIWANYA and the staff of the organization. The gathered material is analyzed and presented with the help of a theoretical model designed by Birner et al. (2009). The model is intended to be used when studying agricultural advisory services, also called agricultural extension. These terms make up the theoretical framework, together with the term sustainable agriculture, in this essay. The result is that MVIWANYA disseminates sustainable agricultural technologies through a variety of methods that collectively can be termed as agricultural advisory services. This knowledge dissemination is well received by the farmer members, mostly because membership is voluntary.

Sammanfattning

Denna uppsats är en beskrivande och analyserande studie i hur en lokal Tanzaniansk NGO (icke-statlig organisation) - MVIWANYA - arbetar för att sprida kunskap om hållbara jordbruksmetoder till jordbrukarhushåll i Rorya distriktet, Mara. Uppsatsens presenterar och analyserar också hur dessa nya metoder påverkar och tas emot av hushållen. Informationen samlades under ett två veckors fältarbete på organisationen i Tanzania. Insamlingen skedde empiriskt genom intervjuer och observationer av och med medlemmarna samt de anställda i MVIWANYA. Det insamlade materialet analyseras och presenteras med hjälp av en teoretisk model utvecklad av Birner et al. (2009). Modellens syfte är att användas när man studerar agricultural advisory services eller agricultural extension. Dessa termer, tillsammans med hållbart jordbruk, utgör denna uppsats teoretiska ramverk. Resultatet visar att MVIWANYA sprider hållbara jordbruksmetoder på ett flertal olika sätt som tillsammans kan definieras som agricultural advisory services. Denna kunskapsspridning tas väl emot av av de småbrukare som är medlemar. Detta framförallt då medlemskap i MVIWANYA är frivilligt.

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Acronyms and Abbreviations

FFS, Farmer field schools

MVIWANYA, Mtandao Wa Vikundi Vya Wakulima Na Wafugaji Nyancha
NGO, Non-governmental organization
SALM, Sustainable Agriculture and Land Management
VSLA, Village Savings and Loans Association
WOCAT, World Overview of Conservation Approaches and Technologies
FAO, Food and Agriculture Organization of the United Nations
LITI, Livestock Training Institute
MATI Ilonga, Ministry of Agriculture Training Institute Ilonga

1. Introduction

In the 21st century, approximately one out of eight people on this planet do not consume enough food to meet their dietary needs and 12% of the world population goes hungry and undernourished. Most of these people are small-scale farmers living in developing countries like Tanzania in east Africa (FAO, 2014). Alongside this world issue is also the one facing us all, that of climate change and the impacts that will have on the earth and all its inhabitants. The big questions, like how to fight poverty and climate change, have always interested me. They are also highly relevant in 2014, not just for students of rural development but for all of us. Thus I had no doubt as to what I wanted to conduct my field work in regards to. The small-scale farmers in Tanzania have to fight to ensure food security every day, and they also have to face the climatic changes. How do they manage this? How do these small-scale farmers change and adapt to the changing conditions of the world and what aid are they receiving? These are questions that cannot be easily answered, nor do I attempt to in this essay. However I hope to show the efforts that are made on a grass root level, to improve the lives and livelihood of small-scale farmers in Rorya District, Tanzania.

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1.2 Background

1.2.1 Picturing the area

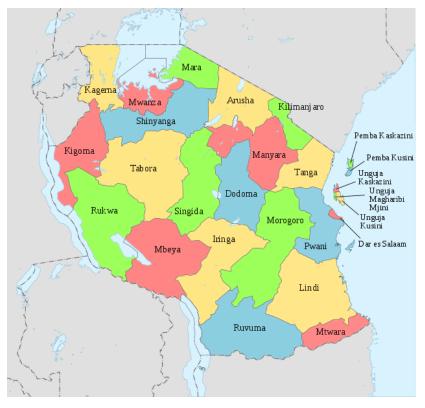


Figure 1, Map of Tanzania Wikipedia.org (2014)

Mara region is located in the top northwest corner of Tanzania, bordering to Kenya in the north and Lake Victoria in the west. In the east lies a part of the Masai Mara National Reserve and located in the south east is the world famous Serengeti National Park. It is divided into six administrative districts; Musoma Rural, Musoma Urban, Bunda, Serengeti, Tarime and Rorya. (National Sample Census of Agriculture 2007/2008)

Rorya district is part of the Mara lowland zone and receives less rainfall than the rest of the region but average at about 700-900 mms/year. Rainy seasons occur September to January and February until June. The predominant natural vegetation in Mara is the savannah, forest vegetation, scattered woodlands and wooded grasslands and bush land. (Tanzania Development Support, 2014)

Rorya district is one of the smaller in the region with approx. 270 000 inhabitants, a vast majority of them are small-scale farmers with crop/seaweed farming as their main activity and hence their main source of income. Live-stock production and

fishing are other main sources of income. In contrast to Rorya, only half of the Mara population consists of agricultural households. (National Sample Census of Agriculture 2007/2008)

Cereal crops most commonly grown around the entire region are maize, sorghum, finger millet and paddy, i.e. unmilled rice. Maize is one of Tanzania's staple foods and it is usually processed into flour to mix with water which makes Ugali (FAO, 2012). This is a type of porridge very commonly consumed in Mara and Tanzania.

Another important crop to the Mara households, which is also used to make Ugali, is the cassava. It is especially important in regards to household's food security (FAO, 2014) and together with maize covers a majority of the planted area in the region (National Sample Census of Agriculture 2007/2008). Fruit is also an important part of the household's diet. Bananas, mangos and oranges are the dominating fruit crops in Rorya.

There are many well-known and effective agricultural methods, of different distinctions and varieties, which result in good yields. Among these are relatively simple methods, for example the usage of fertilizer, improved seed varieties and different farming implements, or to practice fallow. However the usages of these methods are not obvious or economically possible to many of the agricultural households in Mara. Fertilizer was used on just shy of 9% of the total planted area in the region, the majority of the fertilizer used was organic. In Rorya 95% of the planted area were not fertilized at all. Using improved seed varieties for both crops and vegetables is a rare occurrence in the entire region with the least use in Rorya where only 8% of households use it. The farming implements most commonly used by a large majority of households. Implements are quite rare, such as the ox-plough which is used by a third of the households. Implements such as power tiller, thrasher and tractor ploughs are virtually non-existent (National Sample Census of Agriculture 2007/2008).

The majority of households in Rorya do not experience food problems, however 25% do have problems with satisfying the household food requirements. Thus it is the district with most food security problems in Mara region. Most people eat only two meals a day and almost all of these meals are cooked over an open fire. A large portion owns bicycles and radios, and a little less than half the population own cell

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phones (National Sample Census of Agriculture 2007/2008).

1.2.2 MVIWANYA

MVIWANYA is a locally based small-scale farmer's network in Shirati, Rorya District of Mara Region, Tanzania. Establishing the network was an initiative from Swedish NGO VI-Agroforestry¹, but as of October 2006 it is an independent organization. Official registration as a non-governmental organization occurred two years later. However they are still working in close collaboration with the VI-Agroforestry office in nearby city of Musoma.

MVIWANYA consists of an employed staff of four – one coordinator, two project officers and one accountant. Besides the employees, an essential part of the organization is the 21 community facilitators, who in turn are responsible for 21 wards located within 82 different villages around Rorya District. The community facilitators are educated by MVIWANYA and are obliged to successively educate the farmers in their ward. A total of 4305 individual farmers are members of the network and participate in regular group meetings. This is an impressive amount of people, however it is only 1,5% of the district's total population.

The organization's objective is to strengthen farmer groups and to contribute to their improved livelihoods. They also aim to educate farmers to effectively utilize the various resources available to them. They work to achieve this through education regarding – among others – sustainable agriculture like agroforestry and land management, gender equality, climate change and VSLA - Village Savings and Loans Association. How they work and more in-depth information about their activities will be discussed later in the essay.

1.3 Experiencing Tanzania

Tanzania is not the most distant place I have visited, in fact geographically and in distance, it is not very far away at all. But despite having visited exotic and isolated places before, arriving in Dar Es Salaam, Tanzania felt like stepping into another world. A world you know is out there, but is virtually so detached from your own that it cannot be anything but an overwhelming experience. Yet the most terrifying

¹ VI-Agroforestry is a Swedish NGO working in east Africa (Tanzania, Kenya, Rwanda and Uganda). They provide aid to farmer organizations and teach agricultural practices like agroforestry. The aim is to improve people's livelihood and increase their food security, but also to mitigate climate change and increase biodiversity.

and exciting part was to arrive in Mwanza totally unprepared for the last part of the journey to Shirati. A taxi driver grabbed me and my fellow traveller and in our disoriented state we got into his taxi and let him help us get to the bus station and on a bus that would take us to Musoma. The bus journey felt surreal, partly because I was ridiculously tired, but also because of the absurdity in the feeling that I was sitting on an old and torn bus packed with strange faces, travelling through rural Africa.

Despite the ambivalent feelings wreaking turmoil inside me, we were very well received by all the people along the way. Everyone was eager to help and make us feel welcome. After the long and arduous journey, we finally arrived to MVIWANYA head office in Shirati, Rorya, where we met with coordinator Mr Joel Nguvava who received us heartily and kindly helped us get settled.

Rorya is not easily described. It is a place so different from the world I know. First and foremost, it is absolutely beautiful, the landscapes and views along the roads are stunning and breathtaking and one never ceases to be amazed along every new travelled road. Along these roads there are also people everywhere, either sitting on the roadside or travelling by bike, motorbike or foot, almost always carrying something, whether it's passengers or goods. Grazing on the flat grassy fields are the native cows with their characteristic humps and bony structure. In the sloping ditches goats of different sizes and color are sleeping, eating or bleating. An occasional rooster or a couple of hen also passes by inside the villages. It is a dynamic place full of different sounds and smells which makes Rorya unique and special in its own sense.

During my two and a half week stay in Shirati, I cannot say that I acclimatized or ever became accustomed to the place. There was always a sense of wonder and fascination for everything I experienced. I felt incredibly lucky to be able to meet and talk to so many amazing people. However it always saddened me that the language barrier thwarted me from communicating with most of them directly. It felt like a big loss for me both personally but also in regards to my materialcollection for this essay. So instead of verbal communication I tried to get a sense of the place and the people through observation, though that of course also came with its limits. Inevitably I observed the Rorya community through eyes deeply affected by my cultural background which naturally made the observations subjective and possibly interpreted wrongly. However I did the very best I could

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and tried to distance myself from my cultural presumptions.

1.4 Questions and objectives

The objective of this essay is to describe and analyze how a local Tanzanian NGO – MVIWANYA – works to disseminate the knowledge of sustainable agricultural technologies to individual farmer households. This will be achieved by answering the following questions:

- What type of sustainable agricultural knowledge do MVIWANYA disseminate?
- What are MVIWANYA's strategies for disseminating this knowledge?

• How is this knowledge received by individual farmers and community facilitators?

• How do the new technologies affect the life and livelihood of individual farmer households?

2. Methods

2.1 Qualitative methods

Communicating with MVIWANTA before the visit was difficult and resulted in a situation where I had no inclination as to what I would be able to study. Consequentially, I opted to approach my fieldwork in an exploratory and inductive manner with an open perspective. Inductive method means to collect empirical data and draw conclusions and make analyses from the experience and information collected. Thus I had to improvise which methods to use during my fieldwork, they were not intentional or planned but were instead the methods obviously best suited for my particular situation. The only definitive decision I had made was to conduct a qualitative study, focusing on the theme of agricultural knowledge. The reason for this choice is that I intended to gather information about people's feelings and perspectives and to capture the dynamic and nuances of people, this is deemed more possible with a qualitative method (Teorell & Svensson, 2009). Also I wished to interact with my informants on a personal and hands on level, which had been a limited possibility had I conducted a quantitative study.

2.2 Fieldwork

I collected my empirical data through participatory observations together with both group and individual semi-structured interviews. Most questions were pre-planned and phrased so as to receive good and relevant answers. This was achieved with the help of Kvale's guide to interviews (Kvale, 1997). For example the first few questions were introductory. They were followed by questions that could be described as probing, specific, direct and follow-up ones. The phrasing is an important aspect of the interview and one should be aware of it so as to best achieve the purpose of the interview (ibid). Intentionally the interviews were structured so as to adapt to different groups, individuals and situations. With this method I was able to accommodate which questions to be used depending on answers already given, and also to change the sequence of questions and being able to exclude ones that were deemed unnecessary.

The villages and different farmer groups that I visited, were based on a schedule made by MVIWANYA. The individual participants - of the groups - were not chosen intentionally. Group members had been asked to attend a meeting with MVIWANYA and those present were interviewed. No consideration was taken to age, gender or community position. All interviews were conducted in an open discussion where whoever inclined to answer the questions did so. Group interviews varied in regards to group size but were conducted with a total of 88 individual farmers separated into 7 different groups.

Individual semi-structured interviews were also conducted separately with five different community facilitators, from MVIWANYA, who were willing to participate. As a conclusion to the fieldwork, a complementary and in-depth structural interview with one of the MVIWANYA field officers and the coordinator, was executed. I used this interview as a complement and filler to the others, and with the information I received I was able to see everything I had heard and observed previously, in an enlightened way.

I conducted participatory observations during the entire length of my visit to Rorya. Since the place was foreign and different for me, it was important to be observant to everything around me. This partly because of the importance of a context to the information one gathers, and also to be able to observe people's behaviors and interactions instead of asking said people directly. According to Kvale (1997), observations works well as a complement to interviews and can result in more valid information being gathered.

2.3 Obstacles to overcome

Despite a very good guide on how to phrase questions (Kvale, 1997), and despite having read numerous texts on how to conduct interviews, one can never expect the difficulties and problems that will arise when interviewing someone of a completely different cultural and educational background than yourself. I thought I had phrased my questions plainly and straight-forward, however they were not received as such by the informants. The answers I received showed exactly how big of a gap there is, in language and perspective, between a female Swedish student and a Tanzanian small-scale farmer. Especially describing feelings and questions that might have needed a small amount of reflection from the respondent seemed very difficult to answer (see appendices for my full list of questions). I found this difficult to handle and because of the time limitations, I could unfortunately not accommodate much in regards to this problem. What I eventually had to do, and I did despite having learned not to, was to phrase leading questions. Or rather, give examples on answers so as to receive anything that could be useful to me. Inevitably this lead to receiving answers affected by the way I had phrased the questions (Kvale, 1997).

Furthermore, I did not speak to most of my informants directly but via an interpreter which inevitably also causes a few problems. Despite that our interpreters – the MVIWANYA field officers – were very competent English speakers, one cannot avoid thinking about the nuances to the answers that will inevitably have been missed. Not everything was translated, and the English version you receive will be filtered through another person before you obtain it. This is especially worrisome when the interpreter is also not a neutral part of the interview, but someone to whom the informants have a relation. Additionally, I might not have understood my informants correctly or even the observations. It is also possible that I have misunderstood or misinterpreted information from all my informants, even those speaking English. However I have analyzed and interpreted the information that has been given to me to the best extent I can.

I do not deem any of the obstacles mentioned to be insurmountable, as long as one takes all this into consideration when analyzing the informant's answers. It is simply a matter of awareness which I have done my utmost to keep during my work on this essay.

3. Theory

3.1 General terminology

3.1.1 Sustainable agriculture

MVIWANYA – as being a part of NGO VI-Agroforestry – defines sustainable agriculture mostly in accordance to SALM (Sustainable Agriculture and Land Management) practices. This is in the aim to achieve continuous production for the farmers, reduce the risk of production failure and use the work labor effectively. It is, in turn, achieved by a variety of inter-dependent components; increasing soil fertility, using good crop varieties, managing pest- and disease control and working tillage and weeding practices (WOCAT, 2011).

WOCAT (2011) - World Overview of Conservation Approaches and Technologies - has drawn up guidelines for best practices in Sub-Saharan Africa under the coordination of FAO - Food and Agriculture Organization of the United Nations. They define these best practices of SALM as to achieve increased land productivity, improved food security and provision of other goods and services. This is built on the principles of expansion, intensification and diversification of land use which implies

- 1) water use efficiency,
- 2) enhanced soil fertility,
- 3) improved seed varieties and
- 4) producing more favorable micro-climates.

Of these I will explain the first three further, leaving the fourth because it is less relevant to this context.

1.) *Water use efficiency* - the aim is to reduce water loss by increasing the soils water holding capacity, to improve the harvest of water and to maximize water storage and managing excess water to prevent soil erosion. The level of efficiency is defined by yield amount per water unit.

2) *Enhanced soil fertility* – there are a number of methods that will accomplish this: first, improved fallow by using, for example, nutrient fixing plants in sequence, intercropped or rotation. Next, residue management which means to leave crop residue after the harvest. This leads to a reduction of soil erosion and improved water infiltration. Subsequently there is the application of compost and manure to ensure that no nutrients go to waste. Also there is the use of tapping nutrients through, for example, agroforestry which through the help of tree roots relocates

nutrients from deep within the ground to the top-soil. Furthermore it is deemed a good strategy to also use in-organic fertilizers, to a certain sustainable amount. Lastly is the issue of minimizing soil disturbance which means to use sustainable tillage² systems or preferably zero tillage systems.

3) *Improved seed-varieties* - To improve seed varieties means to improve planting material by minimizing the impact of weeds, pests and diseases and reduce post-harvest losses. This is a rather complex and controversial matter in regards to the improved seeds that emerged after the green revolution³. However there are also other aspects that will support the improvement of seeds – or rather augmenting its capabilities-, like optimizing planting dates, geometrical position of the plants, etc., together with mixed plant systems to benefit from synergies between different plants.

3.1.2 Agroforestry

"Agroforestry is a collective name for land-use systems and technologies where woody perennials (trees, shrubs, palms, bamboos, etc.) are deliberately used on the same landmanagement units as agricultural crops and/or animals, in some form of spatial arrangement or temporal sequence. In agroforestry systems there are both ecological and economical interactions between the different components." (Lundgren and Raintree, 1982, cited in Ramachandran Nair, 1993:25)

Agroforestry is an agricultural method that can range from simple settings to complex systems, thus it is not one standardized method. It is, however, a method that mostly benefits, and is best applied on, small-scale farms. Different practices includes: alley cropping, farming with trees on contours, or perimeter fencing with trees, multi-storey cropping, relay cropping, intercropping, multiple cropping, bush and tree fallows, parkland systems, home gardens etc. (WOCAT, 2011).

The benefits one receives from using agroforestry are many and, naturally, dependent on which practice one conducts. General beneficial aspects are the sustainability of the system and that it will increase land productivity and fertility. Agroforestry practices can also result in improvement of organic carbon content and soil structure, increased water infiltration and establishment of favorable micro-climates (WOCAT, 2011).

² Usage of roller, harrow and plough.

³ The Green revolution took place in the 1960's when new seed varieties were developed through plant breeding. Scientists are divided in regards to whether the impacts of the green revolution were positive or not, depending on perspective.

3.2 Agricultural extension

The theoretical perspective used to answer, discuss and analyze this essay's main question and objective, is the concept of agricultural extension.

Agricultural and rural extension is one of the means available to help alleviate poverty and improve food security. It promotes the transfer and exchange of information that can be converted into functional knowledge, which is instrumental in helping to develop enterprises that promote productivity and generate income. (FAO, 2001: 3)

It is a complex term with multiple ways to interpret it (FAO, 2001). It also is closely related to the term agricultural advisory services. In this essay the terms agricultural extension and agricultural advisory services is used interchangeably. They are both defined as describing all the different services and activities related to advice, teaching and information-giving that is needed and demanded around agriculture, together with livelihood-improvement for farmers. The institutions behind these services range from public, private and civil society organizations, though they do not always classify themselves as extensions. But what unites them is their aim to provide information and advice that is meant to result in livelihoodimprovement for farmers (Christoplos, 2010).

To better understand what these extension-related services and activities entails, let me exemplify some of the aspects Christoplos (2010:10) has emphasized:

• distribution of sustainable agricultural technologies and testing through practical adaption of these,

• financial advice together with economical and business management skills, bridging farmers to institutions and the public sector,

• contributing to the public sector and it's development through providing the voice of and feedback from the farmers.

3.2.1 History of extension

Together with the different interpretations and definitions of extension, there are also a wide range of approaches that has changed and evolved over the years. The modern version of extension began taking shape in the 1960's and was commonly based on a linear approach called diffusion of innovation, which in turn was built on the theories based on the belief that there is one definite way of managing a farm, and that the transmission of knowledge and new technologies from scientists to farmers would result in development (Duveskog, 2013). These beliefs led to the usage of standardized models of extension.

In the 1980's, a new approach was developed called the training and visit system, or the T&V system. The difference between this one and the previous one, was that this aimed to strengthen the old system by giving extension staff new professional training and creating a stronger link between the scientist, extension agent and farmer. T&V entailed that extension agents would regularly visit a predetermined contact farmer in his or her village of responsibility. This contact farmer would then spread the knowledge to the rest of the village. This new system was widely used and heavily funded by the World Bank. It eventually became to be considered a failure by both scientists and by the evaluation studies conducted by the World Bank. Nevertheless some positive impacts could also be proven, though not ones significant enough to regard the system as a success (Duveskog, 2013).

3.2.2 The new paradigm

Since the 1990's there has been a general opinion, including FAO and the World Bank, that the system of agricultural extension needs to undergo a reformation and revitalization. This has encouraged researchers, connected to practices around agricultural and rural development, everywhere to engage in studying the subject. The majority of new research has discovered that there needs to be a shift in the paradigm around agricultural extension. Recent research shows that the new approach needs to focus on achieving best fit through adapting to a specific context's – i.e location - conditions and development needs and priorities (Birner et al., 2006). Firstly, the agricultural technology needs to be adapted to the local context in regards to both the geographical area and the farmers living there. This should be done in collaboration between the farmers, researchers and extension agents (Duveskog, 2013). The extension agents require substantial in-depth local knowledge of his or her area of responsibility. Secondly, the system needs to shift from top-down to bottom-up by adopting a farmer-centered perspective (ibid). Farmer-centralizing entails a variety of approaches but revolves around farmer empowerment - strengthening farmers by giving them a voice. They need to be given a chance to participate in the development process or they will continue being excluded from its benefits (Wambura, 2010). For example by teaching them to be inventive, so as to be more adjustable to different situations. Alternatively, to create farmer's organizations and groups, so as to have them collectively strengthen each other through cooperation and coordination instead of an

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individualized approach. Cooperation with each other will ease access to lucrative markets and coordination empowers them to be more market-driven and thus improve economic conditions to increase their well-being and livelihood. Farmer groups are useful to have in one of the widespread extension approaches used around the world today - Farmer Field Schools (FFS). The name is descriptive, it is a forum or a platform - school - for farmer groups to meet regularly to do practical studies in different farming techniques (Duveskog, 2013). Third and lastly, agricultural extension needs to acknowledge that poverty alleviation and livelihood improvement can also be achieved – and is most likely a necessary component - by teaching farmers knowledge not only regarding agricultural technologies (ibid).

Another aspect of farmer-centralized and the farmer focused approach is the use of farmer groups in extension services. Oakley and Marsden (1984) – presented by Wambura (2010) - have outlined three significant issues in regards to the use of farmer groups:

Formation: On whose initiative has/will the farmer group formed? The group's future development is dependent on this. Either the group formation is imposed on individual farmers or the initiative comes from the individuals themselves. It is desirable that the formation occurs as a result of a pedagogic process.
 Membership: The group members need to have a joint interest, which would most commonly be that of an economic one. Also important is that both men and women are included and treated equally. Lastly, groups should consist of approximately 15-35 members.

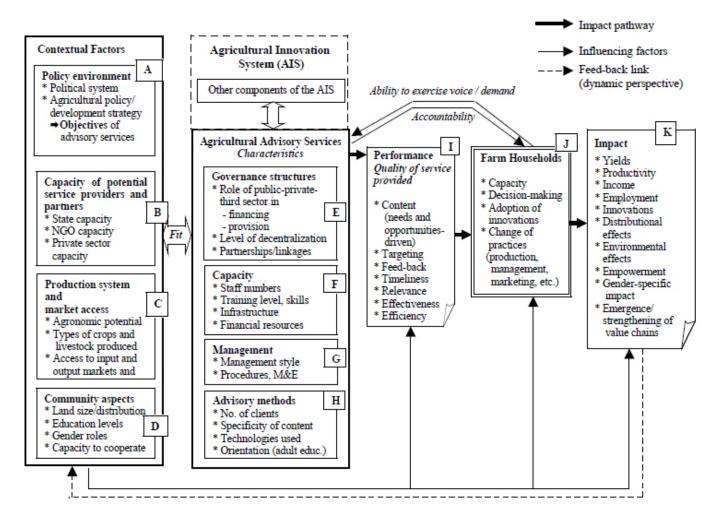
3) *Structure*: Like the formation issue, structure can either come from within a group or be imposed on them. Again it is desirable that the structure and organization comes from within, thus preventing dependency on outside forces. The issue of leadership can also be a result from internal or external decisions where the radical approach is to let the emergence of a group leader to occur during the group development (Wambura, 2010:26).

3.2.3 Model for agricultural advisory services

Consistently new research shows that extension needs to be demand-driven. This is considered to be the new paradigm and the solution to a functional extension system. However it has proved difficult to find practical methods for this new approach (Duveskog, 2013). Nevertheless Regina Birner, of International Food Policy Research Institute in Washington DC, has, together with ten other scientists from around the world, developed a new conceptual and theoretical framework and research method which is based on the demand-driven approach to extension. They state that one best understands extension as a menu of options (Birner et al., 2009). Again, there are no standardized models of extension that will work everywhere. The model can be used in various different ways. It is suggested to use for impact assessment, to identify reform options, to support experimentation and learning in on-going reform processes, or as a guide in the set-up of performance management, monitoring and evaluation system (ibid). It can also be used when researching agricultural extension and it comes with advice on research methods. However the research conducted for this essay

was done prior to having the model at hand. Nonetheless it will be used to analyze and describe the empirical data I have collected in Rorya, Tanzania together with answering this essay's questions and achieving its objectives.

Figure 2, Conceptual framework for agricultural advisory services, Birner et al (2009)



The model in figure 2, in its flexible and non-standardized form, can be applied on various contexts. Parts of the model are self-explanatory; nonetheless I will shortly explain the model to clarify it. Note that the entire model is not used for my analysis, the parts that are will be further explained in the analysis chapter.

Boxes A-D means to highlight the contextual factors of the agricultural extension service. The policy environment (Box A) points to the public sector system and organization of the country in which relevant extension is provided, what are the available resources? While box B shows the capacity in said system, both in regards to the public sector, private sector and the third sector of NGOs. Furthermore, Box C highlights type of production system and the complexity of the promoted technologies. Lastly Box D outlines the characteristics of the individual communities. All these contextual factors are, naturally, connected to how extension services should best be structured and organized to achieve a good fit.

This leads to boxes E-H. Box E looks at the governance structures and institutional set-up, specifically how the extension service relates to the contextual factors. Who provides the extension service and how is it systemized? Either the public sector contracts an NGO or private institution, or the private sector manages it themselves, or lastly it is provided by the third sector – self-funded farmer organizations. Whoever is responsible for the service, it is important to look at the capacity of said responsible institution, which is the aim of Box F. How many staff is employed and what are their educational backgrounds? What does the institutional infrastructure look like and what are the financial resources?

Next box (G) points to the management style of the institution. Birner et al. (2009) establishes different styles; top-down, participatory, rule focused and result focused. Does the management reflect the institutions objectives; is it adjusted to other governance structures and the used advisory (extension) methods? How is it managing financial and human resources (the attitude, motivations and aspirations of staff)? Furthermore it is important to identify what the procedures for planning, monitoring and evaluation looks like.

Management style is also reflected in how the farmers are involved in planning and problem solving, which brings us to the last box, H. Also, how many farmers are involved in the service, what types of training are used (e.g. farmer field schools, short courses) and what mediums? Lastly it is important to identify and specify the

content of information that is distributed; is it pre-determined and limited or dependent on the needs of the farmers?

The final part of the model contains boxes I-K, called the impact chain. Box I, about quality of service in regards to performance, is dependent on the goals of the extension service. This reflects the relevance and accuracy of the given service and also shows efficiency in delivery. Next is box J which examines how the farmers use the extension service and also their ability to do so; are they able to exercise their voice and express their needs and demands? This is also dependent on what Box D examined, that of the characteristics of the relevant farmers, their culture and behavior can affect how they receive the service. "*Providers may face a weak demand and hence need to first build capacity of farmers to express their demand*." (Birner et al. 2009: 351) The final box is K, which looks at the impact of the service, both in regards to the individual farmer and broader societal goals.

3.2.4 Extension in Tanzania

In Tanzania, the main provider of extension services is - and has been since the country's foundation in 1961 – the public sector, namely the government. But since the late 1980's a shift has occurred where extension services is also provided, to a larger extent, by the private and civil society sector (Rutatora & Mattee, 2001). Mainly the T&V method has been the widely accepted method of use until 2002 (Duveskog, 2013). However numerous extension projects were conducted in the 1990's and it resulted in the foundation of the Agricultural Sector Development Program in 2003, which transferred the responsibility of extension to local governments in the countries districts. To achieve a strong implementation of this the Agricultural Services Support Program started in 2005 and it, in turn, is built on a Farmer Empowerment Program which entails the method of FFS. (ibid) Thus the main responsibility of extension services is given by the Ministry of Agriculture and Cooperatives together with local government authorities under the Ministry of Regional Administration and Local Government. In Rorya District, Mara, 58% of the households reportedly received extension services in 2007-2008, mostly provided by the government (National Sample Census of Agriculture 2007/2008). However other key providers of extension services in Tanzania are NGO's, donorsupported projects, private agribusinesses and community-based organizations (Rutatora & Mattee, 2001). One of these is MVIWANYA organization in Rorya District.

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4. Empirical results and discussion

The entire model in figure 2, will not be used, partly because I do not possess all the information needed, since I did not have the model at hand while collecting the data. But also because not all parts of the model are relevant to answer this essay's questions and to achieve the objective. The model will be used as a tool to describe and analyze MVIWANYA.

In the previous chapter I have partly presented information in regards to box A, meaning the policy environment in Tanzania have briefly been described. Also a short description of the disseminated technologies - agroforestry and sustainable agricultural methods - was presented at the beginning of the previous chapter. Here I will present boxes F-H, which looks at capacity, management and advisory methods of the organization. I will also present boxes J-K which focuses on the effects and impacts on the farmer households. Box I will be excluded, which looks at the performance aspect. The reason behind this is because it would deviate from this essays objective, which is to describe MVIWANYA, not evaluate it. Also excluded are box D-E, this because – as previously mentioned – I do not possess the relevant information to answer these.

4.1 Capacity and management

This section will present the *capacity* and *management* of MVIWANYA organization (Boxes F-G).

Capacity-wise MVIWANYA organization has limited financial resources, and human resources are also scarce. There is an employed staff of four. One coordinator – Mr Joel Nguvava - and two project officers – Mr Raymond Moshi and Mr Joseph Bugwema - work fulltime, the accountant works part-time. However, despite the resource scarcity, the staff members have shown that they are utilizing what is available to its utmost extent. It became evident to me during both my interview with them and during observations that they are all well-educated and amply experienced. Mr Nguvava has a two-year higher educational background. He received his certificate from Buhare Community Development Training Institute. Mr Moshi received four years of college education from LITI College (Livestock Training Institute) and MATI Ilonga College (Ministry of Agriculture Training Institute Ilonga). After college he worked for five years as a secondary school teacher. Mr Nguvava, Mr Moshi and Mr Bugwama all worked for VI- Agroforestry where they received various training before they were employed in MVIWANYA.

Another essential part of the MVIWANYA work force is the 21 community facilitators who are not paid but voluntarily accepts to work for the organization. They are elected by the people in their wards and take on a huge responsibility for their communities. Duties includes: providing the organization with progress reports and monthly operation plans, frequently visiting farmers to record their activity and provide relevant training, work in partnership with other stakeholders (e.g. the government and other NGOs), attend regular group meetings and mobilize new groups together with creating awareness of the organization. The community facilitators receive training from MVIWANYA as well as from partnering NGOs.

According to Birner et al. (2009) there are different management styles - top down, participatory, result-focused and rule-focused. MVIWANYA is an organization who strives towards a demand-driven approach and would therefore be classified as having a participatory management style. Participatory management entails that employees are given an active role in decision-making processes relating to how the organization operates. In this case, it is instead the clients or the members of the organization who are given the opportunity to affect operation, they are given a voice. This is shown through various different aspects which I will now present. Firstly, the organization defines itself as a farmer's network with the intended mission to improve the livelihood of small scale farmers (in Rorya District) through strengthening the farmer groups. Secondly, MVIWANYA define their responsibilities as: to build farmer capacity through a demand-driven approach, to link groups with other institutions, NGOs and stakeholders inside and outside the district, to advice the government so as to give groups recognition and provision of services and lastly to facilitate lobbying and advocacy to the public sector in regards to farmer related issues. According to Christoplos (2010), linking farmers to public and private sector institutions is an especially important aspect. In regards to MVIWANYA this is important partly because when their resources are not sufficient, this bridging activity fills in their capacity gap. Thirdly, one of the organizations main objectives is to provide farmers with a common voice, partly through the MVIWANYA staff activity of lobbying in the public sector. Lastly the community facilitators are responsible for mobilizing new farmer groups.

In the previous chapter three issues - developed by Oakley and Marsden (1984),

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presented by Wambura (2010) - in regards to the use of farmer groups was presented. These three were formation, membership and structure. Formation looks at how the group was formed. In the case of MVIWANYA, groups are formed by the farmers themselves in collaboration with the community facilitators. The decision to join MVIWANYA is entirely up to the individual farmers, it is not imposed on them. Membership relates to the aspect that group members need to have a joint interest, that they should be 15-35 members and that both sexes should be treated equally. The average farmer groups in MVIWANYA consist of 23 members, the majority is women but they are principally treated equally to men. The joint interest is naturally to learn about new agricultural technologies. The last issue is *structure*, which can either come from within a group or be imposed. Farmer groups democratically choose their community facilitator who works as a kind of leader. I am unsure about the internal structure of the farmer groups but it is certain that MVIWANYA do not interfere with it. New groups are first taught the principles and constitution of MVIWANYA and then proceed to plan what they wish to be educated and trained about together with the community facilitator. On page 26 you will find what kind of education MVIWANYA offers.

The facilitators are, as previously stated, not outsiders but people known and elected by the communities. They expressed that they feel respected by their groups and are often seen as a facilitator or teacher. All these factors show that MVIWANYA operates on grass-root level with a farmer-focus approach. The members of the farmer groups are given space to affect how MVIWANYA operates – what they are to be taught - to achieve the organizations objectives and mission. I believe this clearly shows the specific management style of MVIWANYA.

The human resources of MVIWANYA - the staff members and community facilitators – also affect how the management works. Most importantly, they are key factors in regards to the organizational culture. During my visit and observations it became clear that together they create an environment, for everyone involved, which is open, friendly, humble and devoted. It became especially clear to me that the MVIWANYA employees are very dedicated to the organization. They are all inhabitants of Rorya District and gave the impression that they are very rooted in the community. "For me, it is my interest to work in the field, I like working in the field (...), I like to meet people, to see different methodologies and technologies implemented by farmers. (...) I learn from farmers and they learn from me." – MVIWANYA employee

Also the community facilitators have shown to be dedicated and hard-working, this is specifically evident since they are conducting work for their communities and the organization without pay.

4.2 Advisory methods

Advisory methods (box H) used by MVIWANYA are many and of different types. Also the content of the advice differ significantly. There are 185 groups (4305 individual farmers) who benefits from the organizations advisory services. As previously stated, they have all chosen to receive this service and they also choose what to be taught together with their community facilitator. One of the MVIWANYA employees explained that sometimes a group will join MVIWANYA specifically to be taught one thing, but once they join, they will be interested to learn more of what the organization has to offer. The scarce resources are obviously a limitation when it comes to groups choosing what to be educated about; the menu of options is not unlimited. A group may express what they wish to be educated about but the scarcity of staff, time-limitation of the community facilitator, scarce financial resources, lack of certain knowledge or the issue of transport may be hindrances that thwart the service to be disseminated. The demand-driven approach is very resource-demanding and thus it is difficult for a small organization like MVIWANYA to fully adapt it.

MVIWANYA distributes advisory services related to five core activities. These are as follows:

1. *Livestock keeping:* poultry keeping, dairy goat keeping, fish keeping and cattle keeping. Farmers are taught about the importance of having a few good quality cattle instead of a large herd of poor ones. Also they have the opportunity to learn about artificial insemination and how cross-breeding local breeds with European ones will result in hybrid cattle which are of a significantly better quality than the local kind. Other important parts of the livestock keeping subject are the establishment and management of fodder and pastures. Farmers are taught about the benefits of reducing cattle grazing and even the practice of zero-grazing.

2. *Agricultural activities:* These include the establishment of vegetable gardens and the planting and cultivation of cash crops and food crops. The crop production is conducted according to – as previously explained – SALM practices, or more specifically agroforestry. Farmers are taught and shown the benefits of agroforestry practices. Another very important practice is the usage of manure, i.e. organic fertilizer. Naturally this can be practiced mainly by livestock keeping farmers. This is connected to the practice of reduced grazing. When cattle are roaming freely on pastures, it is more difficult for the farmers to collect the manure and therefore it is beneficial to keep the cattle close to the farm.

3. *Tree planting activities and mitigation and adaption of climate change:* Again this is in regards to agroforestry which is a practice with several beneficial aspects. It is important to teach about tree nursery establishment, then choosing different trees for different purposes, like tree planting for timber production or fruit production. There are also fast growing trees used for firewood, fodder and pastures planting. Planting trees for firewood is very important due to the problem of deforestation in the area. This is a problem partly because the vast majority of the population cooks over an open fire, thus constant supply of firewood is essential to the farmer households. Farmers are also taught to practice wood-saving-stoves which reduces the usage of firewood. This is one of the practices conducted to mitigate climate change – to grow more trees than is being cut down and to utilize the wood effectively. Farmer groups also have the opportunity to learn about the reasons and effects of climate change and how to adapt to changing climatic conditions.

Entrepreneurship activities: One of the most important advisory services that MVIWANYA provides, and that is considered a success by the staff, is the establishment of savings and credits systems at community levels. Business management and financial skills is also a vital aspect of extension according to Christoplos (2010). The prominent practice, taught by MVIWANYA, is that of VSLA – Village Savings and Loan Association. Each farmer group has the opportunity to establish an economical association, with specific rules and principles, which enables farmers to collectively save money and thus it is possible for individual farmers to borrow money when necessary. Also taught is enterprise analysis and selection, establishment of a business plan and record keeping and strategic farm planning. Strategic farm planning can result in farmers using their resources effectively and thus improve their financial situation. For example farmers are encouraged to establish small businesses, like making soap or wine made from Rosella grown on the farm. This provides them with an extra income

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besides the selling of cash crops. Other entrepreneurship related activities are the formation of producer marketing groups, market information access and use, preservation and value addition of farmer products.

Awareness creation of HIV/AIDS and gender equality: MVIWANYA is one of many organizations that work with these issues. Mainly they stress the importance of farmers to undergo medical examinations. The farmers who are affected by HIV/AIDS receive the help to form their own farmer groups, thus these families can support each other. The issue and importance of gender equality is another very important aspect of the MVIWANYA advisory services. They aim to achieve more equality between the sexes by showing the farmers the benefits. A MVIWANYA employee explained that this is accomplished by never discriminating any sex in regards to teaching, everyone has the opportunity to learn any of the practices MVIWANYA disseminates. However one should not underestimate the deeply rooted gender roles. There are a number of activities that traditionally are carried out only by men or only by women. Despite that MVIWANYA strives towards achieving gender equality and that no gender is excluded from being taught any one thing, this does not necessarily lead to a change for the individual household. Women may be taught, for example, how to clear the land, but in practice it is still done by men. Traditionally the women generally carry the heavier work load in the individual households, but MVIWANYA hopes that by also showing farmers the benefits of sharing the work load more equally, they can achieve gender equality.

The strategy for disseminating the knowledge presented above will now be presented. What types of advisory methods are used? MVIWANYA uses several different approaches:

1. *Study visits:* Farmer groups receive the opportunity to visit and be visited by other groups. Thus they have the opportunity to share ideas and create connections and friendships with each other. One community facilitator said that one of the most important results of having joined MVIWANYA was that he had received visitors to his farm and that he had made friends.

2. *Farmer field schools (FFS):* This is a widely spread practice with a range of different methodologies. These will not be presented here but instead there is a brief explanation of how MVIWANYA uses this approach. Usually the community facilitator is responsible for the FFS, he or she will organize a plot that will be used by the farmer groups. This is practiced during the rainy seasons. Three different plots are prepared by the farmers, using three different agricultural techniques. The

harvest will then concretely show which technique receives the best yield. Consequently, the MVIWANYA staff has witnessed that most farmers will choose to practice the technique resulting in the highest yield.

3. *Practical demonstrations and theoretical lectures:* Christoplos (2010) express that it is very important that farmer groups are shown practically how to perform the new agricultural technologies. It is also considered important according to the MVIWANYA staff. Thus farmers are shown, for example, how to plant trees in the fields and what spacing to be used depending on the crop. Theoretical lectures are conducted on for example climate change. There are also knowledge to be taught both theoretically and practically, like how to practice VSLA and how to make a business or farm plan.

4. *Farmers of the future*: Apart from providing advisory services to farmer groups, MVIWANYA is also engaged in a project called Farmers of the future. This is conducted in collaboration with secondary and primary schools around Rorya District. Both younger and older students are taught about agroforestry and other agricultural practices. Lastly MVIWANYA uses the approaches of farmer exhibitions/shows, conducting meetings with stakeholders and arranging study circles.

4.2 The reception from MVIWANYA members

The following section will focus on box J in the analysis model to answer how the farmer groups and community facilitators in MVIWANYA receive the knowledge distributed by the organization.

When the farmers were asked how it felt to learn new agricultural technologies, it was difficult for them to give any straightforward answers. But it was evident that they were happy and excited to learn, which is also reflected in the fact that they have all chosen to learn from MVIWANYA. "*We feel happy today because we are sure that we will harvest.*" expressed one of the female farmers. I cannot say that I observed any noticeable pattern among group members and thus I cannot say that it is one type of farmer or person who chooses to join. The one pattern that is known to me because of the statistics presented by MVIWANYA, is that 77% of the members are women. From that one can arbitrate that it is women in Rorya who are the driving force behind change. Worth noting is however that the majority of community facilitators are men, so despite it being women who want to join MVIWANYA and make a change, they mostly let the men take on the leader role. There can be a number of explanations for this, but most of these can most likely

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be related to the rooted gender roles in the communities. Men are traditionally the head of households and thus they are elected to the leading position. The practical aspect is that women traditionally are responsible for taking care of the children and cooking. If they take on the responsibility of community facilitator it will be difficult for them to do both. In a different study it could have been interesting to research the psychology of the men and women who are elected and what makes them different from other community members.

All of the groups interviewed said that there was plenty more for them to learn and they had a positive attitude towards learning. "The heavy capital is education." as one community facilitator conveyed. Some groups were asked to describe what it means to be a good farmer, and unanimously they answered that it is those who follow the principles of MVIWANYA. The positive attitude towards learning also showed when asked about the future of the children. The majority of the groups said that the children's futures look brighter than theirs did, because of the improvement in regards to the educational system. Both the younger and older children involved in the Farmers of the future project, were all excited about farming. Especially the older children, who were involved in agricultural learning activities outside of their ordinary school work, they expressed that they wanted to become farmers when they grew up. One student shared that he visits the maize field, which the school keeps, also on his free time. I asked the children - of both ages – whether they talked about farming with their parents which they answered they did. To what extent this is done and how the conversations in the families go, I cannot say. But I do arbitrate that if these children share their knowledge and experiences also with their parents, it surely contributes to the positive attitudes towards learning and changing ones agricultural practices.

However implementing new technologies and methodologies takes time and a lot of effort from the farmers. For some it takes more time or is more difficult than for others. Some community facilitators shared that they sometimes had to repeatedly visit groups and show them how to change their agricultural practices. Why it is more difficult for some than for others is difficult to explain definitely. One community facilitator said that change is hard work and that nobody is perfect. I think one can assume that change is also dependent on the farmer household's educational background or general attitude. Maybe it is the economy and other resources like proximity to water, schools or the community facilitator, available human resources and land and its quality, whether livestock is kept or not etc. The

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effort of changing is not an easy road and it is also time-consuming, which is why one of the approaches of teaching is to concretely show the good effects of changing, to motivate farmers further. Because it takes time to implement the new practices, it inevitably slows the process of change in the communities and as a result it also affects MVIWANYA and with which efficiency they can conduct their work. Evaluations of the process are conducted regularly both by community facilitators and the staff members. The annual plan is prepared in April every year.

Implementation of newly learned technologies can also be affected by individual farmers and a group's financial situation. This was shown in interviews with the farmers and the community facilitators. Several groups have been taught about poultry-keeping but have not implemented it, some because they did not have the financial resources to start poultry-keeping. Others were concerned with the illnesses that affect poultry which could result in financial losses. Another group had thus far failed to implement agroforestry but was still trying when interviewed. The usage of manure was also difficult for some groups to practice, despite having cattle. This was mainly because they could not afford wheelbarrows and consequentially it was difficult to transport the manure to the fields.

4.4 The impacts

Inevitably, receiving the agricultural advisory services from MVIWANYA has affected the lives and livelihoods of all the member farmer households. Implementing the new practices has resulted in higher yields and increased incomes. The higher yields have ensured the food security for many of the farmer households. It has also improved their diets and thus their health. One of the female community facilitators I interviewed said "*It's like liberation*" when asked how she felt about MVIWANYA. Hopefully this is a feeling also reflected in some of the other members. That learning new practices, and thus improving their livelihoods, gives them a sense of empowerment and liberation.

Several of the groups and community facilitators interviewed expressed that VSLA had a very positive impact on farmer's financial situation. 70% of MVIWANYA members are active in VSL associations and have benefited from it. Thanks to the association farmers have had the opportunities to borrow money to pay school fees, to pay for medical treatments and to establish small businesses. It provides a financial security and also assists them to be entrepreneurial, which is encouraged by MVIWANYA.

Through the MVIWANYA teaching approach of arranging study visits, farmers have been given the opportunities to share ideas and to establish good connections. This is of course beneficial all on its own, but also by having many groups organized they can establish access to more lucrative markets for selling their produce. Together they have the opportunity to arrange, for example, produce to be sold in larger cities like Musoma and Mwanza which results in a higher financial income. This could not be done by an individual farmer.

The life and workload situation of the women in the groups showed a vast difference between those that had been taught about gender equality and those that had not. The women and men in all groups were asked about their daily activities. For those groups educated in gender equality, it was clear that the workload was significantly more shared than between the men and women of uneducated groups. In the educated groups, the men would help the women collect firewood, water or look after the children whereas in the other groups women had the sole responsibility for these activities. The benefits of a more equal workload had been shown by MVIWANYA. It is beneficial in terms of effectively utilizing the time and available human resource, i.e. more things could be done in one day.

All community facilitators interviewed expressed that they were happy and comfortable with their duties. One woman said "*I feel free with my job and I like it very much.*" However it was difficult for all of them to visit their farmer groups because of the long distances. So conducting their duties as community facilitators takes time and I believe it inevitably affects their own farms and families.

Through being a part of MVIWANYA, not only are the farmers enabled to improve their own livelihoods, but also they are given a voice. This is both through their community facilitators and the MVIWANYA staff. It is shown especially in the constant lobbying conducted by the MVIWANYA staff. They are, as previously mentioned, working on a political and public level to improve the conditions for small-scale farmers. In conversations and interviews with the staff, I was told that it is hard and slow work, but that achievements are and have been made.

5. Conclusion

The objectives of this essay was to describe and analyze how the local Tanzanian NGO – MVIWANYA – works to disseminate the knowledge of sustainable agricultural technologies to individual farmer households. This was achieved by describing and analyzing MVIWANYA's advisory services and their strategies for disseminating it, and to show the impacts and reception these advisory services has on the farmer households and community facilitators. In the previous chapter I attempted to achieve these objectives with the help of a model created by Birner et al. (2009).

The content of the advisory service MVIWANYA provides are varied and diverse. Firstly, they teach sustainable agriculture through agroforestry and by showing how to keep animals so as to utilize them effectively. Secondly they teach how farmers can be innovative and entrepreneurial by making business plans and diversifying their activities. Thirdly, farmers are taught how to practice their farms and daily schedules effectively and how to lessen the work load for women by teaching about gender equality.

MVIWANYA conduct their advisory services by helping farmers to organize into groups and to provide service through a demand-driven approach. This is conducted on a grass-root level with the help of community facilitators who are well known to the individual farmers. Their strategies for dissemination includes: the usage of farmer field schools, giving theoretical lectures and practical demonstrations, arranging study visits and the project of Farmer field schools.

In the last two sections of the previous chapter it was described how the farmers receive the new knowledge and how it has made significant impacts on the lives and livelihood of both the individual farmers and community facilitators. The reception has been positive, mainly because the members have actively chosen to join the organization to receive education. The new agricultural methods have made significant impacts. First and foremost, is has resulted in higher yields, which in turn have improved the household's economy and increased their food security and thus improved their livelihoods.

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Figure 1 2014-06-10: *Map of Tanzania* (http://en.wikipedia.org/wiki/File:Regions_of_Tanzania_sw.svg)

Appendices

Questions for farmer groups

1.1. What did you do before you joined MVIWANYA, what is the difference between today and before?

1.2 What has been the biggest change since you joined MVIWANYA?

1.3 Do you feel more excited and motivated about farming today? Please explain.

1.4 From whom to do you prefer to receive new knowledge, from MVIWANYA or the community facilitator?

Questions for farmer groups and community facilitators

2.1 Why did you choose to join MVIWANYA?

2.2 How do you feel about MVIWANYA?

2.3 What do you think is the most important thing MVIWANYA has taught you?

2.4 What has it been like to learn all these new agricultural methods and new practices around equality, economy etc? And implementing it?

2.5 What do you wish you could get more support with from MVIWANYA? Please explain.

2.6 Can you describe how a good farmer is? What qualities do they have?

2.7 Have you been taught something that has not been implemented? Why?

Questions for community facilitators

3.1 How would you describe your position/work and how do you feel about it? (Answer = x)

3.2 How do you think the other group members see you?

3.3 As X, do you feel respected?

3.4 Please tell me about your approach and strategy as a community facilitator/How do you teach them new things?

3.5 What do you think about MVIWANYA's strategy of using community facilitators as teachers?

3.6 Have you taught them something that has not been implemented?