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Fakulteten för landskapsplanering,
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Participatory agricultural development in practice

– the case of the Nnindyé project

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Participatory agricultural development in practice – The case of the Nnindye project

Deltagande jordbruksutveckling i praktiken – en fallstudie från Nnindye, Uganda

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Foreword

The past five years of university studies have taken me from the assumption that I would spend my days collecting soil samples, to this thesis in agroecology which some may argue have too little to do with both agriculture and ecology to even be called agroecology. To me that would be selling agroecology a bit short. If there is one thing I have definitely learned during this masters program, it is that understanding people is as much a part of creating sustainable agroecosystems as understanding biological and chemical processes (and at least as difficult). Environmental sustainability is what ultimately motivates me, but I've had to accept that the social and economic components of sustainability cannot *always* be placed in the background (even if I will still be the first to argue that they sometimes must). This became more obvious than ever during my weeks in Uganda. A significant part of this program was spent on opening our minds to a more systemic and holistic way of thinking, so hopefully the fact that this thesis could easily fit into many different disciplines will not be held against me.

Ellinor Isgren, May 2012

Summary

Participatory development seeks to actively engage local people and communities in development efforts, from problem identification to evaluation. The concept is, however, vaguely defined and can in reality manifest itself in many different ways, with varying success in creating a sustained impact. There are also a wide range of challenges involved due to the collaborative nature of the approach. This thesis is a qualitative case study exploring the Nnindyé project, a participatory agricultural development project that is being carried out in Uganda. The overarching aim is to explore the challenges involved in implementing the Nnindyé project which can affect its capacity to generate sustained agricultural development, and what lessons can be learned that might be applicable to future projects in similar settings. To help answer this question, research questions were developed focusing particularly on 1) the kind of participation the project enables, 2) emerging issues that are important to address, 3) the relationship between farmers and “outsiders” involved, 4) gender dimensions and 5) reasons not to participate. Literature from the fields of participatory development and research, particularly experiences from Uganda, helped guide the development of these research questions.

To address these research questions, semi-structured interviews were carried out with 80 farmers in Nnindyé parish (both participants and non-participants), sampled through a non-probability sampling method. Additionally, 5 agricultural researchers familiar with using farmer participatory approaches in other projects in Uganda were sampled through convenience sampling, and their experiences and views were explored through semi-structured interviews. At the end of the study, a final interview was carried out with one of the Nnindyé project implementers.

As it turns out, participation in the project cannot be categorized. Respondents mainly identified material benefits but also learning and other less tangible benefits. One's contribution was most often seen as practical input, usually labor. Influence in the project was similarly commonly perceived in practical terms rather than “political”. This material or pragmatic nature of participation seen among some participants may suggest that more efforts are needed to strengthen the learning process and community building capacity, but also tangible benefits can be of great value in both short and long term. Luckily, one doesn't have to exclude the other. Participant ownership of the process is something that is viewed by the project implementors as central, and participants on numerous occasions expressed negative opinions towards past top-down approaches. However, “ownership” must not mean lack of support. Dissatisfaction with the group leadership and unfair distribution of benefits among the project members was discovered and there is a need for more systematic monitoring and facilitation. The results overall show an overwhelmingly positive attitude towards scientists and extension staff among the farmers, who stated that they view these as very knowledgeable. This seemingly positive relationship is an asset but it must be remembered that it is not static – negative experiences can jeopardize both the current project and attitudes towards collaborative efforts and development in general. Gender dimensions are important to consider in practically all aspects of a project, and gender awareness is required among the implementers to ensure that the project benefits women and men alike. In general, parallels could be drawn from the Nnindyé project to the experiences of the researchers, speaking for the usefulness of these findings to other academics and development practitioners.

Table of Contents

1 Introduction	7
1.1 <i>Problem background</i>	7
1.2 <i>Problem statement</i>	8
1.3 <i>The need for this research</i>	9
1.4 <i>Purpose</i>	10
1.5 <i>Research questions</i>	11
1.6 <i>Thesis outline and summary</i>	11
2 Frame of reference	13
2.1 <i>The setting</i>	13
2.1.1 <i>Agriculture in Uganda – a brief overview</i>	13
2.1.2 <i>The study site</i>	14
2.1.3 <i>The Nnindy e agricultural development project</i>	15
2.2 <i>Participatory approaches: Background and definitions</i>	16
2.3 <i>The many faces of participation</i>	17
2.4 <i>Challenges to implementing participatory development</i>	19
2.5 <i>The importance of monitoring</i>	20
2.6 <i>Empirical findings – using participatory approaches Uganda</i>	21
2.6.1 <i>Why participate, and what does it mean</i>	21
2.6.2 <i>Local power structures and gender</i>	22
2.6.3 <i>Farmers and outsiders</i>	22
2.7 <i>Summary of experiences from Uganda</i>	23
2.8 <i>Implications of the literature review for this thesis</i>	25
3 Methodology	26
3.1 <i>Overview of the study</i>	26
3.2 <i>Research design</i>	26
3.3 <i>The respondents</i>	28
3.5 <i>Data analysis and presentation</i>	28
3.4 <i>Reliability, validity and sources of error</i>	29
4 Results	31
4.1 <i>About the respondents</i>	31
4.2 <i>Research question 1. Characteristics of participation</i>	32
4.2.1 <i>Participation in project design</i>	32
4.2.2 <i>Characteristics of participation in implementation: overview</i>	32
4.2.3 <i>A pragmatic view on participation</i>	33
4.2.4 <i>Exchange of knowledge and skills</i>	34
4.2.5 <i>Social and personal dimensions to participation</i>	35
4.3 <i>Research question 2. Emerging issues</i>	35
4.3.1 <i>Local “politics” and dissatisfaction with leadership</i>	36

4.3.2 The need for sensitization and monitoring.....	37
4.3.3 Farmer compensation.....	37
4.3.4 Fading engagement and unmet expectations.....	39
4.4 <i>Research question 3. Farmers and “outsiders”</i>	40
4.4.1 A chance to obtain knowledge.....	40
4.4.2 Potential hurdles to interaction.....	41
4.4.3 Treatment by outsiders.....	41
4.5 <i>Research question 4. Gender</i>	43
4.5.1 Gender and participation.....	43
4.5.2 Gender and “outsiders”.....	43
4.6 <i>Research question 5. Why not participate?</i>	45
4.6.1 Uninformed and then excluded.....	45
4.6.2 Disappointed with past experiences.....	45
4.6.3 Constrained by health and lack of time.....	46
4.7 <i>Summary of the results</i>	46
5 Analysis of results	47
5.1 <i>Research question 1. What does participation in the Nnindy project mean?</i>	47
5.2 <i>Research question 2. Emerging issues</i>	49
5.3 <i>Research question 3. The farmers-outsider relationship</i>	50
5.4 <i>Research question 4. Gender</i>	51
5.5 <i>Research question 5. Why not take part?</i>	52
6 Discussion	54
6.1 <i>Implications and limitations of the study</i>	54
6.2 <i>Practical advice to participatory practitioners in agriculture</i>	57
6.3 <i>Recommendations for further research</i>	57
7 Conclusions	59
Acknowledgments	60
References	61
Appendix – Interview guide	67

List of tables and figures

Table 1. Different categories of participation.....	18
Table 2. Literature review.....	24
Table 3. Number of respondents by village.....	31
Figure 1. Model for ways to benefit and contribute through participation.....	33
Figure 2. Overview of research questions and results.....	46

1 Introduction

1.1 Problem background

Agricultural output in Uganda comes predominantly from the country's many smallholder farmers, and poverty and food insecurity are widespread problems in rural areas (UBOS, 2011). Despite accounting for over 70 % of employment in Uganda, agriculture contributes with less than 20 % of the national GDP (FAO, 2011). The Ugandan government recognizes the importance of agriculture in rural poverty alleviation and economic development at the national level, as shown by the establishment of the Plan for Modernisation of Agriculture that is part of the Poverty Eradication Action Plan of 1997. However, the impact of these central initiatives on rural areas have been expected to be slow and uneven (Ellis & Bahiigwa, 2003). Indeed, Uganda's agricultural sector is still vulnerable and constrained by factors like access to extension and continued concentration on low value crops (James, 2010). In the southern part of the country surrounding Lake Victoria, climatic conditions are relatively favorable for agriculture – however, soils are degraded and farmers are often constrained by crop diseases and pests, lack of capital, low use of inputs, and inability to access markets (Kalyebara et al., 2007; Sseguya et al., 1999).

Agricultural development efforts need to be able to identify and address local needs and preferences (James, 2010), which locally entrenched, small-scale development programs arguably should be well positioned to do. Even so, agricultural development projects which remain sustainable after external support is withdrawn are rare, according to Butler and Mazur (2007), as the practitioners often pay insufficient attention to ensuring social equity, economic efficiency and ecological integrity. Participatory methods which aim to give the local community a more active role in planning, implementation and evaluation of projects have become commonplace in agricultural development as well as in research the past few decades as a result the poor track-record of traditional, top-down approaches, but also of ideological change (Mohan, 2008). Neither the concept of participation nor its implementation is without its challenges, however.

This thesis is a case study of a participatory agricultural development project currently being carried out in Nnindyé parish, located near Lake Victoria in Mpigi district, Uganda's central region. Nnindyé is home to about 6000 people, 80 % of whom are engaged in subsistence agriculture. In a survey conducted in 2008, around a third of the households reported that they consume only one meal per day, poor harvests being the main reason for food shortages (UMU & Wilsken Agencies Ltd, 2009). Alongside these unsustainable socio-economic conditions, environmental impacts in the area are closely linked to agricultural activities. The difficulty of poor farmers to derive a livelihood from the land are driving factors behind deforestation and wetland exploitation in the district (National Environment Management Authority (NEMA), 2010). Attempting to foster development and poverty alleviation in Nnindyé parish, a participatory outreach program is being conducted by Uganda Martyr's University (located only a few kilometers from Nnindyé) and Notre Dame University in the U.S., in collaboration with the residents of Nnindyé. Agriculture has been identified as one of the priority areas, as improvements in this sector could contribute both to better food security and to raised income.

1.2 Problem statement

The Nnindye program was initiated in 2010 and is aiming to carry out projects within four identified areas of priority; education, water and sanitation, health, and agriculture. The main implementer is the Outreach office at Uganda Martyr's University (UMU) in Nkozi, and the program is funded by the Ford program of Notre Dame University and UMU. At the time of writing of this thesis, only the agriculture project (from here on referred to as the *Nnindye project*) had materialized, and this part of the program is the focus point of this thesis.

The goal of the Nnindye project is to achieve improved food security and income generation at the household level through increasing agricultural productivity in the area (Kellogg Institute for International Studies, 2012a). In a wider perspective, sustained development after successful implementation could contribute towards local agricultural sustainability as defined by the DFID (2002). Economic through improving farmers' ability to derive a livelihood from farming, social through promoting participation, agency and group action, and possibly even environmental through learning and getting better returns from the land already under cultivation. The Nnindye project focuses mainly on increasing and improving the production of plantain bananas, *matoke*. Matoke is a staple crop in southern Uganda, but previously it has not been grown to a great extent in Nnindye. Matoke demonstration gardens have been planted in each of the 12 villages in Nnindye, along with provision of training sessions held by extension workers or university staff. The project uses a group approach; in each of the villages, members of the project form a group which shares the responsibility for managing the demonstration garden as well as what is produced in it.

At the time that the research for this thesis was carried out, the Nnindye project had been active for approximately 1.5 years, yet no assessment had been carried out regarding the overall progress and impact of the project in the communities so far. Monitoring and evaluation are necessary in order to understand the impact, effectiveness and sustainability of any project, and to identify whether or not the desired outcomes are being achieved (Guijt, 2000). Without it, unanticipated negative impacts may remain unnoticed and the project implementers may fail to make important adjustments to the activities within the project and how it is managed. This thesis aims to fill in some of this gap through exploring selected aspects of the project which were identified with the help of a literature review. Well documented experiences from farmer participatory projects in settings like Nnindye are hard to come by in the literature, but one thing that seems important to realize is that some of the challenges in implementing participatory agricultural development projects in fact have little to do with agriculture itself. Participatory development in the case of the Nnindye project involves collaboration within communities and between stakeholders, and past research has found that neither tend to be uncomplicated. Scientists, extension staff and farmers often have different objectives, expectations and ways of working (Bruges & Smith, 2008). Communities are not homogeneous, and who participates (and how) is determined by the project's design as well as a wide range of other factors (Mohan, 2008). Furthermore, in both types of interaction – within communities and between actors – gender dimensions come into play (Cornwall, 2003; Hall & Nahdy, 1999). What kind of challenges actually arise ultimately depend on the approach that is used, how it is implemented, and the local setting. As well as hopefully

providing insight on how the Nnindye project is progressing to the benefit of the project itself, this research forms a case study which can contribute to our understanding of the challenges related to implementing participatory agricultural development projects in practice.

1.3 The need for this research

This thesis aims to close research gaps at two different levels; one regarding the constraints and key issues in implementing participatory agricultural development projects, and the other in the monitoring process and understanding of the Nnindye project.

Participatory development, which is the umbrella category that the Nnindye project falls under, is a concept that lacks a universal definition and that includes a wide range of manifestations – each with its own set of strengths and weaknesses (Mohan, 2008). In theory, participatory development seeks to shift the power over the development process from those who traditionally have defined the problems and the solutions (such as external donors) to those who are immediately impacted by the problems (Duraiappah et al., 2005). Critics point out, however, cases where participatory development inadequately address inequalities (particularly related to gender), and enable tokenism (Mayoux, 1995; Mohan, 2008). A number of participatory methods have been developed to serve different disciplines, Participatory Rural Appraisal (PRA) and Participatory Poverty Assessment being two examples. However, most such tools focus on problem identification and framing rather than the actual implementation of measures to address those problems, and the challenges that this involves (Duraiappah et al., 2005).

The difficulty to draw direct parallels to past experiences (as these are if not rare then rarely documented in the literature) poses certain challenges for this thesis but it also means that there is new knowledge to be gained from analyzing the mechanisms at work in the Nnindye project. While agreeing with Butler and Mazur in that “...*development is a human process for which there are no shortcuts. What works in one location may not necessarily work in another setting*” (2007, p. 607), there are also valuable lessons to learn from a project that may prove useful to another. Doing so can help lessen the gap between theory and practice that is argued to be one of the leading causes behind the failure of so many projects (Mosse, 2003), and hopefully be useful to practitioners of participatory projects in areas with similar conditions as those in Nnindye.

Perhaps due to the focus on farmers, and the agricultural setting of this thesis, when carrying out the literature review much of the relevant information emerged from the field of participatory research rather than participatory development. Experiences from participatory agricultural research, especially projects carried out in Uganda, contain many parallels to the activities in the Nnindye project and many of the lessons learned can be usefully applied and contrasted to the case study. This includes for example issues related to the relationship between the different stakeholders involved (primarily farmers, scientists and extension staff) and dimensions of gender and local power structures in participatory and collaborative approaches (Cornwall, 2003; Hall & Nahdy, 1999; Sanginga et al. 2006). In the near absence of documented experiences from project

based participatory development work in Uganda, these findings help guide the focus of this case study. However, in some fundamental aspects the Nnindye project differs from these cases, which leads to the other reason why this thesis can be of value. The ultimate goal of the Nnindye project is not to conduct research and generate scientific data (as is normally the case in participatory research), but to achieve development and concretely improve the living conditions for the residents in the parish. As a consequence, there is greater emphasis on the ownership of the process being placed among the participating residents, while less emphasis appears to have been placed on monitoring and documentation than what can be expected from a research project. In addition to the academic contribution described above, this thesis can help fill the knowledge gap that has arisen due to lack of systematic monitoring in the project. Doing so at this point in time, when there is more than two years left of the project, means that there are still opportunities to address problems that have arisen.

1.4 Purpose

This thesis aims to improve our understanding of some of the challenges that can arise, and the considerations that are important to make, when carrying out participatory agricultural development projects. This is done through analyzing the views of the intended beneficiaries of the Nnindye project – Nnindye farmers – on what being involved in the project has meant for them so far, how they perceive some important and previously identified aspects of the project, what issues they feel need to be addressed, and if they don't participate – why that is. While doing so, the research can also provide these particular project implementers with useful information regarding the progress and impact of the project from the perspective of its participants. This is achieved through communication of the findings after the completion of the thesis, but also during the actual data collection process as the farmer interviews were carried out in the company of a project implementer (who acted as a field assistant and interpreter). Hopefully, the lessons learned can contribute to the positive impact that the Nnindye project is aiming to have and help sustain it.

The case study is first and foremost carried out from the point of view of Nnindye farmers. The majority of the paper – like the time in field – is devoted to the 80 farmer interviews that were conducted in Nnindye in the beginning of 2012. These interviews included project participants as well as non-participants. Since relatively little literature was found regarding these types of activities in Uganda, and many interesting parallels were found to exist in the field of participatory research, interviews were also carried out with five external researchers with experience working with participatory approaches in Uganda. The purpose of this component was to draw upon the experience of these researchers on the issues identified in the case study, and at the same time better be able to assess the validity and generalizability of the case study findings.

1.5 Research questions

The overarching research question guiding this thesis is *What are the challenges to implementing the Nnindye project which can affect its capacity to generate sustained agricultural development, and what lessons can be learned that might be applicable to future projects in similar settings?* To help answer this question, the following research questions were developed:

- 1) What does it mean to be a participant in the Nnindye project, in terms of benefits, contributions and influence? This question aims to analyze the nature of participation that the project approach promotes, and what motives the participants have for their involvement.
- 2) What are the participants' attitudes towards the project and the progress made so far, and are there any issues that appear to be particularly serious which need to be dealt with in order to achieve the desired outcomes? The aim of this question is to identify issues that could be crucial for the project implementors to address at this stage of the project, while there are still opportunities to make such adjustments.
- 3) What characterizes the relationship between farmers and “outsiders” (scientists, extension workers)? This project involves new relationships with “outsiders” for the farmers involved and this question aims to explore what challenges and/or opportunities this poses.
- 4) Are there gender related issues that need to be taken into consideration by the project implementors in assuring that the project benefit both men and women? The study aims to remain attentive to gender dimensions throughout the data collection and analysis, and also explore some of the ways that the farmers themselves attach importance to gender in the context of this project.
- 5) What prevents non-participating farmers from wanting to, or being able to, participate in the project? This question aims to identify aspects that hinder participation in the project and what kind of measures could minimize such constraints.

1.6 Thesis outline and summary

To address the research questions and objectives stated above, a qualitative approach was chosen. The main method to collect data for this was conducting semi-structured, face-to-face interviews with 80 farmers in Nnindye parish (54 participants and 26 non-participants). This was done using a non-probability sampling method consisting of convenience and purposive sampling. Additionally, 5 agricultural researchers familiar with using farmer participatory approaches in Uganda were sampled through convenience sampling, and their experiences and views were explored through semi-structured, face-to-face interviews. At the end of the study, a final interview was carried out with the project implementer who had acted as the field assistant and interpreter during the majority of the farmer interviews in order to straighten some of the question marks that had arisen during the farmer interviews, from the perspective of the implementer. The methods used in data collection and analysis are described and discussed in more detail in chapter 3.

Literature which can help understand the problems and findings of this thesis is presented in chapter 2 of this thesis. This section includes theories and previous empirical studies relating to participatory approaches in agricultural research and development, with a section focusing especially on experiences from Uganda. Through this literature review, some issues were identified as potential key issues in a project like the one in Nnindye. These helped guide the development of the interview guides as well as in the analysis of the collected data. These focus areas were:

- Ⓟ characteristics of the participation that occurs
- Ⓟ relationship between farmers, scientists and extension staff
- Ⓟ the influence of local power structures and gender dimensions

The results of the farmer interviews are presented in chapter 4 and analyzed in detail in chapter 5, together with the input of researchers and project implementers where applicable. Implications and limitations of the research as well as recommendations for practitioners and for further research are presented in the discussion in chapter 6, followed by brief conclusions to the research questions posed in this thesis.

The results of this thesis suggest that participation even within a project can be of many different kinds at the same time. The majority of the participants feel that they have benefited from participating in the Nnindye project, mainly through gaining materially and/or financially but also through acquiring knowledge and skills. One's own contributions were most commonly perceived in terms of practical input, usually labor. Interestingly, influence in the project is also commonly perceived in practical terms rather than “political”. This material or perhaps pragmatic nature of participation commonly seen may according to the literature suggest that more efforts are needed to strengthen the learning process and community building capacity of the project, but also tangible benefits can be of great value in both short and long term. Participant ownership of the process is something that is viewed by the project implementors as central, and it appears to also be appreciated among the participants who on numerous occasions expressed negative opinions towards top-down approaches. However, the thesis emphasizes that “ownership” must not mean lack of support and facilitation. Negative comments regarding the project were most often related to dissatisfaction with the group leadership and unfair distribution of benefits among the project members. The need for closer monitoring and taking measures to rectify such situations is apparent, which was also something that was brought up directly by several respondents. The results also overall show an overwhelmingly positive attitude towards researchers and extension staff among the farmers, who stated that they view these as very knowledgeable. They therefore desire more stakeholder interaction than is currently the case. Acknowledging the relatively high risk of courtesy bias when investigating such a topic, this seemingly positive relationship is an asset but it must be remembered that it is not static – negative experiences can jeopardize not only participation in the current project but also attitudes towards collaborative efforts and development in general, as some comments showed. The findings suggest that gender dimensions are important to consider in practically all project endeavors, and gender awareness is required among the implementers to ensure that the project benefits women and men alike. In general, parallels could be drawn from the Nnindye project to the experiences of the researchers, speaking for the usefulness of these findings to other academics and development practitioners.

2 Frame of reference

In this chapter, theories and empirical studies are presented that can help understand the research questions and findings of this thesis. In order to understand the setting in which this case study was carried out, however, the chapter begins with a brief overview of agriculture and the need for agricultural development in Uganda. The study site (Nnindye parish) and the conditions for farming in this particular part of the country are described, as well as the background and current status of the Nnindye project.

This is followed by the theoretical framework, defining and exploring what is meant by participatory development and research¹ and then giving an overview of the challenges to the concept as well as to the implementation of it. There is also a short overview of the role of monitoring and evaluation in initiatives like the Nnindye project, as this is part of the justification of this thesis. Finally, there is a literature review of empirical studies carried out in Uganda containing lessons on using participatory approaches in agricultural research and/or development. As these findings helped guide the design of the research objectives, the themes here can be recognized from the research questions listed above.

2.1 The setting

This section aims to provide background information about agriculture in Uganda and more specifically in the study site. Since case described and analyzed in this thesis is an agricultural development project, it is important for the reader to understand the context in which these farmers are living and working and why there is a need for agricultural development efforts.

2.1.1 Agriculture in Uganda – a brief overview

Agriculture is a mainstay of Uganda's economy, accounting for over 70 % of total employment (UBOS, 2011), yet at the same time the agricultural sector only accounts for 17.5 % of GDP (FAO, 2011). The southern parts of Uganda (where the study site is located) receives two rainy seasons per year and agriculture here is dominated by perennial crops, while the drier northern parts have only one rainy season and rely more on livestock (FAO, 2003).

According to the FAO (2003), agricultural output in Uganda comes primarily from the country's many smallholder subsistence farmers, whose average farm size is around 2.5 ha. Food crops dominate, with the main crop being bananas followed by cereals, root crops, pulses and oil seeds, but cash crops for export are also grown including coffee, cotton, tea and tobacco (FAO, 2003). Agriculture in Uganda is predominantly extensive; it is typically rainfed, has low use of inputs,

¹ This thesis is a case study of participatory development, however, few empirical studies could be found that focused on the Ugandan context. Therefore experiences from farmer participatory research also helped understand the questions posed in the thesis.

and very little mechanization – the hand hoe being the most common tool used (UBOS, 2011). Women are estimated to provide around 80% of the labor in the agricultural sector, and an even bigger share when it comes to food production (Mulumba, 2006).

Poverty and food insecurity are widespread problems in rural Uganda. According to a 2008-2009 survey, more than half of the agricultural households reported that household members (particularly women) were not able to access the food they would normally eat during the reference period. The most common reasons for such food shortage were loss of crops, insufficient production, lack of capital, and lack of land (UBOS, 2011). Constraints linked to poverty and food insecurity have environmental impacts in Uganda as well, as a vicious cycle of land degradation is created when farmers are unable to keep land fallow or make investments to sustain soil fertility, and are forced to expand into areas that are forested, wetlands, or unsuitable for cultivation (Nkonya et al., 2004). Acknowledging the role of agriculture in eradicating rural poverty, the Ugandan government has established a Plan for Modernisation of Agriculture (PMA) as a part of the Poverty Eradication Action Plan (PEAP) of 1997. The goals of the PMA include creating a framework for economic growth, ensuring good governance, and increasing poor people's quality of life and ability to raise incomes. Through modernizing agriculture, the government hopes to increase farm productivity (and thus farmers' income as well as food security), improve marketing of agricultural goods, create on- and off-farm employment and promote sustainable use of natural resources (Government of Uganda, 2012).

2.1.2 The study site

This thesis was carried out in Nnindye, a parish in Mpigi district (near Lake Victoria in Uganda's central region), using an ongoing participatory development project as a case study. The site is located in the 210-300 days LGP (length of growing period) zone, meaning that the area has a long growing season, but this also brings relatively high pressure from pests, diseases and weeds (Voortman et al., 2000). The district government also lists other challenges to agriculture in the area, including low yielding, poor quality production methods that are continued to be applied due to limited technological advancement (Mpigi District Uganda, 2012). Poor agricultural practices are also identified as the main cause of negative environmental impact in the area, primarily in the form of deforestation, soil erosion and wetland exploitation (NEMA, 2011).

Nnindye parish contains 12 villages with a total population of about 6000. The age distribution shows a pyramid shape, with approximately 60 % of the population being under 20 years old. A majority of the population reports primary education as the highest level attained. Farming is the dominating economic activity, with 81 % reporting that they are engaged in subsistence farming. Only about 26 % is engaged in other economic activities for cash or food, most commonly trading. Crops grown in Nnindye include sweet potatoes, cassava, beans, maize, plantains, tomatoes, coffee, groundnuts, potatoes, watermelons, eggplant, avocados, sorghum, cow peas and soybeans. Most household also own livestock, but typically in very small numbers. The majority of the crops (around 60 %) are consumed in the household while around 35 % is marketed (typically with no added value) and the rest given away. Around a third the households reported that they consume only one meal per day, poor harvests being the most frequently mentioned reason for food insecurity (UMU & Wilsken Agencies Ltd, 2009)

2.1.3 The Nnindye agricultural development project

The Nnindye outreach program is part of UPFORD (University Partnership For Outreach, Research and Development) and is a collaboration between the University of Notre Dame in Indiana, U.S., Uganda Martyrs University, and the residents of Nnindye. The program “*focuses on helping the people of Nnindye achieve their community development goals*” and is “*community driven, integrating research and development practice*” (Kellogg Institute for International Studies, 2012a), targeting four priority areas; education, health, water and sanitation, and agriculture. The project is mainly funded by the universities, but the long term goal is for local government and community members to build on these investments and sustain the progress past the project time (2010-2015). The aim is to implement development projects within the focus areas listed above, although at the point this thesis was carried out only the agricultural project had taken off.

The backbone of the agriculture project (from here on referred to as the Nnindye project) is the demonstration gardens (primarily of *matoke*) which have been planted in each of the villages in the parish, and which are maintained by the residents who are project members. The matoke plantain banana is a staple food crop in Uganda's high rainfall areas and can be harvested throughout the year. As well as being a major food staple, matoke is also an important cash crop in the local economy. Up until a few decades ago, matoke was seen as a highly sustainable food crop in Uganda thanks to the long life-span of the plantations and stable yields, but today yields are generally low due to declining soil fertility and pests and diseases, and farmers get low prices due to poor organization among the farmers (Kalyebara *et al.* 2007). According to Gold *et al.* (1999), and the region most severely affected by the decline is the Lake Victoria basin, where Nnindye is located.

Nevertheless, matoke is the crop that was chosen to be the main focus of the Nnindye project, although seeds for other crops have been given out as well. The matoke demonstration gardens are “*providing a classroom for farmers in Nnindye to learn proper planting and care techniques that they can take home to their own gardens. They are also a source of “plantlets” for members of the community to plant and care for in their gardens at home*” (Kellogg Institute for International Studies, 2012b). Training sessions are held by project implementors (UMU) and by external advisors. Using the stages of participatory development (Tufté & Mefalopulos, 2000; see section 2.2 below), the Nnindye project was at the implementation stage at the time of the research as about 1.5 years had passed since the start-up and the gardens were in place. Some important aspects of the research and design stages (including the choice of crop) are described in the results section of this paper.

2.2 Participatory approaches: Background and definitions

“To be of benefit to the rural poor, agricultural research and development should operate on the basis of a "bottom-up" approach, using and building upon the resources already available: local people, their knowledge and their natural resources. It must also seriously take into consideration, through participatory approaches, the needs, aspirations and circumstances of smallholders” (Altieri, 2005)

In developing countries where farms tend to be small and agroecologically diverse, improvements in output have often not benefited much from traditional top-down approaches in research and development. Criticism grew among mainstream development organizations and academics alike during the 1970s and 80s when it became apparent that development programs were indeed yielding very limited benefits, and acceptance of participatory approaches became the norm. Advocates of participatory development now go as far as saying that “normal” development tend to be disempowering due to biases such as Eurocentrism and positivism (Mohan, 2008). Also in agricultural research it has become apparent that bottom-up, participatory approaches based on “indigenous” or “local” farmers’ knowledge achieves greater uptake of improved technologies, and that science can be linked to the knowledge and innovation capacity of farmers to the benefit of all stakeholders and in many cases the environment (Goma et al., 2001). Some even argue that harnessing farmers' local knowledge and skills is a prerequisite for the development of sustainable agricultural technology (Altieri 2005) . A multitude of methodologies have been developed within the field of participatory agricultural research; such as participatory rural appraisal (PRA) which aims to enable local people to express and analyze their knowledge (Chambers, 1994), and farmer participatory research (FPR) which refers to a process where research is planned and carried out in collaboration with farmers, typically in their own fields (Selener, 2005).

Participatory development generally seeks to engage local people and communities in development efforts, but defining participatory development more specifically is difficult. Rahnema (1992) suggests that the concept includes three core elements; it is *cognitive* and aims to create new ways of understanding the issues addressed; it is *political* in that it aims to be empowering; and it is *instrumental*, aiming to create new alternatives for its participants. The World Bank simply defines participatory development as “*a process through which stakeholders, and particularly the poor, influence and share control over development initiatives, and the decisions and resources that affect them*” (World Bank, 2011). The FAO's guidelines place stronger emphasis on the process itself, proposing that “*in truly participatory projects, participation is seen also as an end and is thus taken up clearly in the objectives which however mostly include also productive goals.*” (van Heck, 2003, p. 7), and while acknowledging that partial participation in conventional projects can be very useful, it is stated that the so called “truly participatory” projects perform better in the long run. O’Gorman (1995) also emphasizes the value of a process oriented approach when he states that at the micro-level, participatory development projects may not be able to solve problems in the long run or may not solve them at all, but they can still act as a “*catalyst for communication and collaboration in a civil society emerging among the excluded*” (O’Gorman, 1995, p.193).

Participatory development in practice can be explained as having four key stages. An important point is that participation should play a central role in all stages (Tufté & Mefalopulos, 2000).

- 1) Research stage – the problem is defined, ideally with all stakeholders involved in the process.
- 2) Design stage – the activities are designed, with active participation enhancing the relevance of interventions and securing the commitment and ownership of the local communities
- 3) Implementation stage – the planned activities are implemented, and participation improves the relevance and sustainability of the interventions.
- 4) Evaluation stage – the performance and impact of the interventions are assessed, and participation ensures that issues are brought to attention and addressed. In order to be meaningful, indicators should be defined in the very beginning of the process through collaboration between all relevant stakeholders.

It is important to keep in mind this range of definitions when carrying out a case study of participatory development, since the lessons learned cannot necessarily be applied to cases where approaches and motives are completely different. This study focuses primarily on what is happening in the implementation stage of the Nnindyé project, but as involvement in the other stages may influence overall perception of the project, they may be brought up in different ways. Participation in the research and design stages as described by the implementer and respondents are briefly described in the beginning of the results section.

2.3 The many faces of participation

Critics of participatory development approaches warn that participation can be used by organizations as a rhetoric, or too uncritically (Mohan, 2008). According to Parkinson (2009), development discourse has become overly prone to the assumption that participation is a desirable goal in itself, creating a phenomenon referred to as the “doctrine of maximum participation”. The author points out that participation also comes with costs (such as time and effort) that not all intended beneficiaries may be able, or willing, to pay. Still, several large scale appraisals have consistently found that through participatory approaches, gains made during the process are more likely to be sustained and local needs are more effectively addressed. Also, while participatory approaches tend to cost more up front, they often have lower costs throughout the lifespan if the initiative than do conventional methods which fail to make use of local capacity (Jennings, 2000).

Much of the lack of consensus regarding the merit of participatory approaches is rooted in the vagueness of the terminology. Pretty (1995, p. 1247) writes that “*the term “participation” has become fashionable with many different interpretations, some hindering rather than supporting sustainability*”. What it actually implies differs significantly between the wide range of organizations and agencies that use it (Rahnema, 1992), and Cornwall (2000) argues that the term appears to offer everyone what they want it to mean. In response to this, many scholars have made categorizations or “participation ladders” in order to help understand the many faces of participation, for example Pretty (1995), see table 1 below.

Table 1 One way of categorizing different “levels” of participation that have occurred through the years, though some argue that the first four should not really qualify as participatory at all. Adapted from Pretty (1995).

Category	Description
1. Manipulative	The “people” is officially represented, but representatives are not elected and have no actual power over the process.
2. Passive	Participation involves no more than being informed about what has been decided or done, without the project management listening to people’s feedback.
3. Consultative	Participants are consulted and asked questions, but have no part in decision-making and the project management is not obliged to comply with their opinions.
4. Materially driven	People participate by contributing with for example land and labor in return for cash, food or other material incentives. They are not actively involved in experimentation or the learning process, and typically see little reason to continue when such incentives end.
5. Functional	Participation is seen as a way to achieve the project goals, such as cost cutting. There may be interactive participation and shared decision-making, but typically does not begin after the most important decisions have already been made.
6. Interactive	Participation is viewed as a right, and people are have influence in planning, analysis and resource use. The process makes use of interdisciplinary methods and structured learning processes, and participants have incentive to maintain the practices and structures.
7. Self-mobilization	Participants take own initiatives, independent of external actors. They may contact other institutions for resources and advice, but control their own resources. Such self-mobilization can originate and spread if an enabling environment and support is created by for example governments, NGOs and other actors.

According to Rahnema (1992), participation belonging to the first four categories (table 1) are unlikely to have a positive and lasting effect on the participants’ lives, and are typically used knowingly of this. Some scholars even suggest that they should not be seen as forms of participation due to the degree of manipulation that they tend to involve (Pretty, 1995). Schneider & Libercier (1995) similarly write that consultation should no longer be viewed as participation, nor implementation of activities defined by external actors. Instead genuine participation should mean that people are involved from planning to evaluation.

Although the categorization found in table 1 mainly focuses on the external agents' attitudes and actions, it also suggests that the behavior and motives of the participants themselves are important (and the two, naturally, are connected). In rural development projects, Pretty (1995) writes, participation often translates into local people being encouraged to provide their labor in exchange for food, materials and/or cash, and that these practices distort perceptions and create dependency. This is undermining for sustainability, as in many cases impacts only persist as long as the project does. As 'participation' is not a self-explanatory term, it requires careful clarification when it is

used. That is why this case study includes an exploration of what participation means in the case of the Nnindy project.

2.4 Challenges to implementing participatory development

Taking into account what has previously been written regarding the challenges of working with participatory approaches in general is useful when looking into the processes at work in this particular case. The case study that follows can in turn provide empirical insights to how (and if) these challenges manifest themselves in a specific environment, and also highlight issues that have not arisen or if so perhaps have been overlooked.

Participatory approaches in development have been accused of treating the communities involved as homogeneous, which Mohan (2008) argues can lead to even wider gaps between those part of the local elite and those that are marginalized. Gender is one such dimension – agricultural development often involves technology transfer, and this is not a gender neutral process (Grenier, 1998). Several studies on farmer research groups in different parts of the world have found that women tend to be underrepresented (Ashby et al., 2000; Humphries et al. 2000). Women in rural areas have heavy workloads due to their multiple roles, and are also often disadvantaged in the development process due to having lower education and more limited access to for example credit facilities (van Heck, 2003). Even when women are present or even dominate in numbers, there is a risk that women's priorities are neglected if they are not represented in decision-making and leadership, which is not uncommon (Cornwall, 2003). Mayoux (1995) writes that the record regarding women in participatory development has been mixed, and that it is indeed rarely enough to look at the number of women participating. Questions also need to be asked about who participates, in what way, and who benefits. Addressing “gender issues” is more complex than “involving women” (Cornwall, 2000) and must not necessarily translate into “women's issues”; also men who have been marginalized through lack of opportunities and social institutions are often absent from participatory processes. Perhaps not surprisingly, experience shows that “*participatory processes tend to be as “gender sensitive” as those who facilitate them*” (Cornwall, 2003, p. 1335).

Lessons from participatory research and development shows that the interaction between farmers and scientists can be challenging for all stakeholders involved; the process is often slow, especially the early phase where new relationships and trust have to be built up between the different actors. Bentley (1994) argues that there are some major barriers to the success of farmer participatory approaches, including social distance between farmers and scientists. In the old paradigm of research and development, the practitioner would have a vertical approach where the local people were informed about a problem and the solution that they should implement. The new paradigm requires a change in attitude, as the farmers move from being passive beneficiaries to active stakeholders (Bessette, 2004). Lack of mutual understanding of each other's conditions can create challenges also for the farmers; for example, feeling frustration and even embarrassment over their failure to implement recommendations, or discontent over the way that the budget it used, when from the farmers' perspective bigger impact could seemingly be achieved

through more direct measures (Bruges & Smith, 2008).

2.5 The importance of monitoring

Finally, as one of the aims of this paper is to illuminate and help close the monitoring gap of the Nnindyé project, the role of monitoring and evaluation in participatory development initiatives requires some attention. Recent decades have seen a growing concern for monitoring and evaluation among donors, NGOs and other actors in research and development in general (Estrella & Gaventa, 1998). Monitoring and evaluation (M&E) are vital for keeping track of the impact of interventions not least in agricultural development, which are often complex in nature as they involve a large number of social as well as biophysical variables (Muller-Praefcke et al., 2010). Without monitoring, it is impossible to know if activities are carried out according to the plans, if the desired outcomes are being achieved and if there are any unanticipated negative consequences, and how the effectiveness and efficiency of the project can be improved (Guijt, 1998). Even so, it has become apparent that these activities remain a challenge. Weaknesses can range from poor implementation of planned M&E systems, lack of appropriate indicators and over-ambitious methodologies, to not undertaking any monitoring at all, and can be seen in projects in any location or of any type and scope (Muller-Praefcke et al., 2010). Guijt (1998) notes that problems arise both when organizations are tempted to monitor nothing, or only the most obvious changes, and when they try to monitor everything. Both cases typically result in information that is irrelevant and/or inconclusive.

With increasing focus on participation in research and development, there has also been an increasing emphasis on making M&E activities more participatory (Estrella & Gaventa, 1998). In the FAO guidelines on participatory agricultural development, van Heck (2003) writes that project participants should be involved in developing and applying an M&E system in order to obtain information about the project's progress, successes and failures. Well-targeted participatory assessments can generate a considerable amount information using relatively small samples, and it is also a way to deepen the involvement of the participants and increases the sense of ownership in the project (Muller-Praefcke et al., 2010). On the other hand, using participatory M&E when there is a mismatch between the goals of the program and those of the participants, they may view such a component as a burden rather than a benefit (Parkinson, 2009).

Regardless of what monitoring approach is used, there appears to be little debate about the fact that having one is crucial, in any project. Furthermore, in a participatory project, the participants per definition should be involved in the monitoring and evaluation process in some way (Tufté & Mefalopoulos, 2000). In this study, both participants and non-participants were encouraged to reflect on the project and their involvement or lack of involvement, thus filling some of the monitoring gap that has arisen. It can also provide evidence regarding the participants' own views on monitoring practices and examples of problems that can arise when follow-up is scarce.

2.6 Empirical findings – using participatory approaches Uganda

A few cases where participatory methods have been used in agricultural settings in Uganda were found in the literature that can provide information relevant to this study. While most of the literature concerns agricultural research of different kinds (such as PRA and farmer research groups), many parallels can be drawn to the activities in the Nnindye project, as this also involves stakeholder interaction and takes a group approach.

2.6.1 Why participate, and what does it mean

As noted by Parkinson (2009), potential participants weigh the costs and benefits of getting involved against each other when deciding whether or not to join an initiative. Furthermore, the costs of participating may prevent some people from participating even if they would wish to. No studies were found that give much attention to the specific reasons for farmers not getting involved in participatory projects in Uganda, but Sanginga et al. (2006) found that contact with extension services, availability of family labor and living in accessible villages (along with the gender aspects discussed below) all are variables that had a significant correlation with participation in farmer research groups. Other variables in their study, like age, education and wealth, did not. In a case study from eastern Uganda, Friis-Hansen (2005) writes that successful sensitization² to farmer field school groups meant that they were formed through self-selection, and that the result was a mix of different types of farmers rather than just those well-off. Even so, some farmers joined primarily because of an interest in getting access to funds, and these often left the group when they realized the activities were focused on learning rather than providing members with direct access to tangible resources. Likewise, Sanginga et al. (2006) notes that many farmers dropped out of the groups after the initial phase when it became clear that there were no free handouts or other personal benefits. A project described by Ugen (1995) ran into similar problems when the farmers initially thought they would be compensated financially for managing the trials. Opondo et al. (2006) argues against the practice of paying farmers for participating in meetings set up by development programs, as this creates dependency and affects mutual trust negatively. Still, that these expectations exist is not surprising since experience shows that the rural poor often view participation as a cost which has to be weighed against the potential benefits, rather than considering it as something that is inherently of value to them (Parkinson, 2009).

As noted previously, participation can mean many different things, and this is true also from the participants' own perspectives. Style of participation, and perceptions of what participation means, is discussed in a case study carried out in southern Uganda with Baganda participants (the same ethnic group as the majority of Nnindye). Roncoli et al. (2011) point out that while the “Western” style of participation usually advocated by development practitioners emphasizes for example voting and ensuring that everyone have an opportunity to speak (and do so), the Baganda style values consensus building, good manners and ties to the collectivity. The authors argue that little attention has been given to this aspect – that is, what participation means to the participants. In

2 Sensitization refers to the process raising awareness and engagement in the communities and among important stakeholders so that they are convinced that supporting or participating in the efforts is in their own interest (van Heck, 2003).

their case study, the participants' indicator of participation was to be present and supporting others, rather than to express one's opinions and take part in decision-making. Closure was achieved through reaching consensus through discussion, rather than voting. This is important to keep in mind when assessing the participants' view of their own roles in the project, as concepts like “participation” and “influence” arguably are culturally constructed.

2.6.2 Local power structures and gender

Another set of problems commonly encountered concern the relationships and power structures within the communities in question. Perhaps one of the most prominent of such dimensions is gender. Sanginga et al. (2006) found that while men were dominating the farmer research groups in the initial stages, this gradually changed as men dropped out in significantly higher numbers than women. After the so called storming phase, two thirds of the members were female. However, power structures in the groups did not reflect this – men still made up over 60 % in the executive commissions, and the vast majority (over 90 % and 80 %, respectively) of the leaders and secretaries in mixed groups. Furthermore, women in Uganda may not always be comfortable voicing their opinions in mixed groups (Hall & Nahdy, 1999). They argue that it is important that teams conducting participatory projects include both males and females, especially as some issues can be gender sensitive to inquire about, but that this rarely is the case since the national agricultural research and extension system in Uganda is dominated by men. The results of Sanginga et al. (2006) also suggested that farmers households where decisions were made jointly between husband and wife were more likely to participate than when there was a male dominated decision-making pattern; a reminder that gender dimensions come into play in many different direct and indirect ways.

There are, of course, also non-gender related structures within the communities that can influence a participatory process. Some authors argue that research and development organizations, (including those using participatory approaches) tend to fail to work with the poorest, though Sanginga et al. (2006) found no evidence that this was the case in the farmer research groups studied. Hall & Nahdy (1999) describe how during project meetings, people appeared to be reluctant to bring up problems the presence of a local political figure (whose position was reinforced by him sitting in one of the high chairs together with the researchers). At the same time, van Heck (2003) writes that the support and assistance of village leaders and other elites often is crucial for participatory projects. A balance must be found where the support of the leaders is secured without them dominating the process, but this can be a challenging task.

2.6.3 Farmers and outsiders

Interaction between community members can be problematic, but so can the relationship between the different actors involved in participatory projects. Hall & Nahdy's (1999) assessment of PRA methods being used in a project in Uganda describe how problems occurred when the farmers viewed the visitors as “officials” – i.e. powerful men from the city, a cause for suspicion. The problems were reinforced by the air of formality present during the meetings, for example through the way that the participants were sitting, and the authors noted that farmers frequently appeared to say what they believed the researchers expected or wanted to hear. Patterns of behavior also suggested that the agricultural scientists appeared to feel the need to justify their existence

through displaying their knowledge and expressed discomfort with interacting with the farmers in the way that was done – the kind of mutual exchange and open communication that participatory research and development approaches aim to promote. Sanginga et al. (2006) claims this is a view shared by many scientists, and illustrates this with a comment from a senior researcher in Uganda; *“My job as a scientist is not to waste time talking to farmers. These farmers don’t know what to do. My job is to do research, generate data that can be published and not do extension work or social science”* (Sanginga et al. 2006, p 506). According to Hall & Nahdy (1999), these attitudes go hand in hand with the hierarchical relationship between researchers, extension workers and farmers seen in many developing countries. However, Stroud (2003) suggests that there is a generational aspect to this and older researchers tend to be more uncomfortable with participatory approaches that include handing over the stick to farmers, while younger researchers lack confidence and experience.

A related issue concerns whether or not the participating farmers feel that they have ownership of the process in which they are involved. Experiences from a farmer participatory research project focusing on improving soil fertility in a Mpigi district village show that during the process, there was a great change of attitude among the farmers from feeling that they were “working for the researchers” to being actual stakeholders (Ugen, 1995). The author claims this change was a result of frequent visits and discussions regarding the progress and evaluation of the field trials, and thanks to the fact that the results of the experiments were never removed from the farmers. Their attitudes towards researchers in general, and their work, became altered as well (Ugen, 1995). Similarly Opondo et al. (2006) stress the importance of local ownership of processes, in their case decentralized, farmer-led extension approaches.

2.7 Summary of experiences from Uganda

Table 2 below collects and briefly summarizes the studies that were found to contain first-hand information on the process of using participatory methods in agricultural research or development in Uganda. These authors of the articles in this collection have either used and reflected upon participatory approaches, or analyzed them explicitly.

Table 2 A summary of literature on participatory agricultural research or development in Uganda. These are either studies that were carried out to specifically explore participatory methods, or studies using them but also containing information on the process itself.

Study topic	Author, year	Purpose	Methods	Important findings
Impact of agricultural development approaches	Friis-Hansen, 2005	Assess the well-being impact of agricultural development on poor farmers	Impact assessment; Interviews Questionnaires Well-being ranking	Combination of experimental learning in farmer field school groups and changed opportunity structures (conditions for production, accessing services and controlling assets key to reducing rural poverty)
Systemic challenges to farmer participatory research	Hall & Nahdy, 1999	Identify problems in participatory needs assessment and agricultural technology development	Case study; Observation Interviews	Five systematic problem areas: researcher/ farmer power relationship, scientists' professional identities, skill base and human resources, perceptions on the validity of the methods.
Farmer-led research and extension and participatory action research	Opondo et al. 2006	Discuss decentralized research and extension, and the use of participatory action research in enhancing them	Participatory action research; Facilitated farmer groups	Local ownership of the process is important, and providing money for participants creates dependency Building on existing groups is positive Involvement of different actors enhances capacity to engage and relate to each other. Team/partnership skills are key.
Cultural styles of participation	Roncoli et al., 2011	Examine how farmers participate in discussions on seasonal climate forecasts.	Ethnographic observation Linguistic analysis Interviews	Style of participation is deeply rooted in culture and language. There are other ways of assessing participation and reaching closure than the Western.
Patterns of participation in farmers' research groups	Sanginga et al., 2006	Explore who participates in farmer research groups and how this occurs	Focus groups Participatory M&E tools Surveys	Participation is not of one kind, but varies throughout the project Women and poor not excluded but gender and equity perspective needs to move beyond head-counts.
Soil fertility improvement through farmer participatory research	Ugen, 1995	Improve soil fertility management through farmer participatory research	Farmer-managed trials Participatory evaluation Joint field tours	The process helped bridging the gap between farmers, scientists and extension. Constant visits and discussion improved sense of ownership and attitudes towards researchers.

2.8 Implications of the literature review for this thesis

This literature review has made clear that it is difficult to make generalizations when it comes to participatory approaches in research and development. Partly this is inherent to the term participatory, as there is no clear definition for what participation entails. Partly it is due to the fact that the setting where participatory projects are carried out inevitably influences the process and what challenges arise. The empirical studies from Uganda appear to mostly confirm what can be found in the general literature on participatory research and development regarding the kinds of issues that must be taken into consideration;

- ⌚ “Participation” must be analyzed more closely, in terms of what type of participation that the project enables and encourages, and what influences the decision to get involved or not. There may be constraints that hinder some from being able to participate, but it can also be a conscious decision.
- ⌚ Being a collaborative process where different farmers, scientists and extension staff meet (perhaps for the first time) is arguably the major strength of participatory projects, but this also poses challenges. The different stakeholders may have different objectives and expectations regarding the project, and unfamiliarity and difference in status can seriously hinder the kind of interaction that participatory approaches aim to generate.
- ⌚ Communities are not socially homogeneous and local politics and power structures can influence who participates and benefits, and how. Gender is a dimension that requires special consideration, and it is not enough to look at numbers.

These issues will be paid particularly close attention to throughout this study and the research questions were developed to specifically address them, particularly questions 1, 3 and 4:

- 1) What does it mean to be a participant in the Nnindy project, in terms of benefits, contributions and influence?
- 2) What are the participants' attitudes towards the project and the progress made so far, and are there any issues that appear to be particularly serious which need to be dealt with in order to achieve the desired outcomes?
- 3) What characterizes the relationship between farmers and “outsiders” (scientists, extension workers)?
- 4) Are there gender related issues that need to be taken into consideration by the project implementors in assuring that the project benefit both men and women?
- 5) What prevents non-participating farmers from wanting to, or being able to, participate in the project?

3 Methodology

3.1 Overview of the study

This thesis aims to explore the challenges of the Nnindye project to achieving agricultural development that can be sustained in the long run, and what lessons might be applicable to future efforts in similar settings. More specifically, the following five research questions have been set up in order to do this:

- 1) What does it mean to be a participant in the Nnindye project, in terms of benefits, contributions and influence?
- 2) What are the participants' attitudes towards the project and the progress made so far, and are there any issues that appear to be particularly serious which need to be dealt with in order to achieve the desired outcomes?
- 3) What characterizes the relationship between farmers and “outsiders” (scientists, extension workers)?
- 4) Are there gender related issues that need to be taken into consideration by the project implementors in assuring that the project benefit both men and women?
- 5) What prevents non-participating farmers from wanting to, or being able to, participate in the project?

This was done through a qualitative case study using semi-structured interviews. The main focus of the study was to explore the perspectives of the Nnindye farmers on these issues, as they are indeed the intended beneficiaries of the Nnindye project. therefore, interviews were conducted with 80 farmers in Nnindye (54 participants and 26 non-participants). An interview guide with questions developed from the research questions above was used.

To help answer the overarching research question regarding what lessons can be extracted from this that could be useful to other cases, interviews were also conducted with 5 agricultural researchers who were not connected to this project but were familiar with using participatory methods in Uganda. As so little literature could be found on participatory development efforts in Uganda, this was a way to access the undocumented knowledge of these researchers that could help better understand the findings of this thesis. It also served as a form of triangulation, as the same topics discussed with the farmers were brought up with the researchers. This enabled parallels to be drawn to what they had witnessed from other participatory projects, and gave a better idea of the generalizability of the cases study findings.

3.2 Research design

This study is a qualitative case study using semi-structured interviews. A qualitative approach makes possible the understanding of human behavior, thoughts and feelings, and the *processes*

leading to certain outcomes can be explored rather than those outcomes simply being measured. It enables the researcher to understand complex issues that more “controlled” or quantitative methods are ill suited to describe and to view a case from the perspective of those who are involved in it (Gillham, 2000, p.11), which was the aim of this study. The data collection and analysis process was inductive rather than deductive but involved both kinds of reasoning, drawing from the framework analysis approach (see Srivastava & Thomson, 2009). The approach shares some similarities with grounded theory, but is better suited for research where there are some a priori issues identified and when there is a limited time frame. The method is able to both generate theories and interpret what is going on in a particular setting (Ritchie & Spencer, 1994) which makes it well suited for the purpose of this thesis. Themes within the interview guide were determined based on a review of the existing literature, but the approach also allowed for themes to emerge that had not been stated initially. This way, the topics outlined by the research questions were ensured to be addressed, but if there were other issues of importance to the respondents there was also room for those to emerge. Semi-structured interviews were viewed as the most appropriate method to achieve this in practice.

Semi-structured interviews make use of an interview guide, but leave room for going more in-depth on interesting topics and gives an opportunity to explore the complexity in the respondents' statements (Bernard, 2002; Wengraf, 2001). As noted by Dey (1993, p. 17), there is a wide spectrum between “structured” and “unstructured”, and the right level depends on the aim of the study and also on the constraints. The farmer interviews in this study were relatively structured, as it was seen as desirable to get the views of relatively many farmers, and also due to time and language constraints. The interview guide consisted of actual questions (rather than general themes as can sometimes be the case). The questions asked were primarily open ended. Follow-up questions could be asked based on the responses in order to clarify and get more depth, and questions could be modified when appropriate. Largely the same interview guide was used for all the interviews although some adjustments were made, particularly early in the process. Also, farmers not participating in the project naturally could not be asked the same questions as the participants; the non-applicable questions were then omitted and instead the reasons for not participating were explored. The farmer interviews were carried out face-to-face, usually at the home of the respondent, in February-March 2012.. Due to limited knowledge of English among the farmers, a Luganda-English interpreter was used for the vast majority of the interviews. The respondents names were not recorded as it was believed that this would help the respondents be more open, and they had the option to decline to take part if they wished. After the farmer interviews had been conducted, a final interview was conducted on March 15 with the implementer who had been present as a translator during the majority of the interview. This was done to clarify some question marks regarding the project and to get an implementers perspective on the issues that had been brought up.

The researcher interviews were also carried out face-to-face in Kampala, also in February-March 2012. As these interviews were meant to get a wider perspective of the issues emerging from the farmer interviews, were fewer, and didn't require interpretation, the format was less structured than the farmer interviews. The questions were adjusted based on the respondent's field of research and also updated in order to relate to the information that emerged from the ongoing farmer interviews.

3.3 The respondents

The farmer interviews were conducted with 80 farmers in Nnindy; 54 project participants and 26 non-members. More women than men were included in the sample (54 vs. 26) which was viewed as appropriate since there is evidence that women play a bigger role in agriculture in Uganda (Mulumba, 2006). The respondents were identified through a non-probability sampling method, using a combination of convenience and purposive sampling. There were no accessible records of the residents or their contact information, making this the only feasible option. The farms in Nnindy are relatively dispersed and respondents were generally chosen based on who was present at the time that the farm was passed (by motorbike or by foot). Non-participating farmers sometimes had to be left out, since the majority of the research questions relate to experiences from within the project and therefore the aim was for participants to make up around two thirds of the sample. Respondents came from 11 of the 12 villages in Nnindy, time constraints being the reason one was left out. In order to make sure that the sample also included project members with leadership positions in the project, purposive sampling was also used to ensure this. Naturally, these sampling methods cannot be used for estimating a population parameter from the sample, but they are useful in exploratory research (Bernard, 2002). Since the aim was to conduct a qualitative study that would not be analyzed statistically or be the basis of a formal evaluation of the program as such, the weaknesses of these sampling methods and potential sampling errors are viewed as less serious than the nonsampling errors discussed below. Still, it is important to remember that the sample size is relatively small and important information and insights may have been overlooked due to this. In theory there was a risk for a selection bias as participating farmers (or farmers with strong opinions about the project, positive or negative) might be more likely to accept being interviewed, but in reality only one farmer refused (in his case due to discontent with the project).

In order to identify interview subjects for the researcher interviews, a literature search was done using the search words “participatory”, “agriculture”, and “Uganda”, and emails briefly describing the topic of the study were sent out to the authors of relevant articles for whom contact information was available. 5 out of the 12 researchers who were contacted were available for interviews. The majority of the identified potential respondents were male, and unfortunately no female researcher could be interviewed.

3.5 Data analysis and presentation

As mentioned above, this study was predominantly inductive; rather than starting out with a hypothesis that was confirmed or rejected by the collected data, themes were identified as they emerged from the data. However in reality, as noted by (Ruona, 2005), qualitative research involves shifting between inductive and deductive reasoning since tentative hypotheses and categories emerge continually, which are then tested against the data. A distinctive feature of qualitative research is that analysis of the data often takes place already during the data collection in order to allow questions to be adjusted, refined and even added as new angles are found (Pope, 2000). Simultaneous data collection and analysis enables critical reflection and continual learning

to take place, which ultimately leads to better research. After each day in field, the field notes were typed up and reflections on the collected information were written as memos. This is a way to step back from the data and reflect on what kind of information the interviews generated, without having to deal with 80 interviews all at once (Ruona, 2005). After all the interviews had been compiled in a text document, the information was categorized and the responses to each research question and emerging theme were analyzed separately. Once the data were categorized, it was possible to start looking for patterns in the data.

As for the presentation of the data and the findings, quotes are included to illustrate the respondents' views, but these are paraphrased based on the interpreter's translation and not direct quotes. In many cases, words such as “several” or “many” are used to describe the results. Quantifying the data with statements like “X % of the respondents mentioned...”, is done with care as it can be seen as an implicit transformation of the data into falsely quantitatively representative findings (Flick, 2009). It must be kept in mind that given the small sample size (at least when it comes to non-participants) and the non-random sampling methods, these findings cannot be viewed as representative for the whole population. However, particularly given the relatively structured nature of parts of the interview, considering frequency as well as content can still be useful in analyzing and presenting the data. Summarizing the data gives a more descriptive overview than when every bit of data is treated separately (Dey, 1993). Where appropriate and relevant, the results are therefore presented quantitatively. For example, as one of the research questions in this thesis refers to gender, comparing the responses of women and men can sometimes be of relevance. This might include comparing how frequently a theme was brought up in order to identify tendencies, even though no claim for statistical significance is made.

3.4 Reliability, validity and sources of error

Qualitative research is typically carried out in “real”, complex environments where there are few variables that remain stable over time and each location is unique, making reliability rather difficult to assess. For example, consistently getting the same results when conducting a qualitative study may be an indicator of a flawed method (such as asking a leading question) rather than a sign of getting reliable data (Flick, 2009). Verifying information with different informants is one way to address reliability when interviewing (Shank, 2006), but a person's opinions and attitudes (as these interviews mostly focus on) cannot be verified by someone else. On the other hand, the decidedly qualitative method grounded theory substitutes reliability with saturation – that is, when new data doesn't add new properties or themes (Lehmann, 2010). In this case, at towards the end of the 80 interviews it did seem that while no two responses were identical, completely new themes were rarely being brought up. Searching for a convergence among different sources of information through triangulation is another approach commonly used in qualitative research to improve both reliability and validity of the findings (Golafshani, 2003) and the addition of the researcher interviews to the farmer interviews in this study was in part driven by this purpose.

There are some important sources of potential research bias which need to be addressed in the discussion of this study's validity. A major one is the language and translation errors that may have occurred. Due to very limited knowledge of English among the farmers, it was necessary to use an interpreter. This could have introduced errors both in the translation of the questions in the interview guide and in the translation of the respondents' answers from Luganda to English, due to misunderstandings or lack of exact translation of some words and expression from English to Luganda. An interpreter is often faced with an array of different possible word combinations that might be used to convey the meaning of what the respondent has said rather than there being an exact word-for-word match (Temple & Edwards, 2002), especially with two languages as different as here. As an example, Mwesigye (1996) demonstrated in a field study in Uganda that a concept like 'environment' requires very careful interpretation to make sure that researchers and local people are addressing the same issue. The interview guide was discussed with the interpreters in an attempt to avoid unnecessary misinterpretations, but ultimately it was impossible to know exactly how the questions (or answers) were phrased. So called "back translation" (Bernard, 2002) would have been a very useful method to minimize translation errors, but unfortunately this was not feasible due to the time constraints. Instead, effort was made to identify and address possible translation problems through carefully observing how the questions were answered, asking for clarifications when needed, and discussing any concerns with the interpreter. As for the researcher interviews, these were conducted directly in English and any language errors are likely to be less serious. Here, particular care was taken to avoid asking leading questions that would generate false or exaggerated correlation between the case study and the researchers' experiences.

Other possible sources of non-sampling errors also exist other than those mentioned above; respondents can mis-recollect, misunderstand questions, and be dishonest. Some reasons for respondents to withhold or give faulty information can be sociocultural factors like unfamiliarity with the sort of questions that are asked, discomfort or embarrassment, and "courtesy bias errors" – the respondent feeling compelled to express what he or she the the interviewer wants to hear (Grenier, 1998). Evidence from Uganda shows that this last issue can affect the process greatly (Hall & Nahdy, 1999). In the case of this thesis research, there was not only a foreign researcher present but also an interpreter who had previous involvement in the project. This arrangement was not ideal from a bias point of view and it also made it difficult to ensure complete anonymity, but in practice necessary as someone familiar with the area and project participants was needed. It also brought the benefit of the respondents being able to talk to someone that was familiar, and according to FAO (1997) the issue of courtesy bias is best dealt with through helping the respondent be comfortable in the interview situation. As an example of a topic where courtesy bias errors might be suspected is the farmers' feelings towards scientists – in these interviews the researcher was introduced as a "student", but what difference this distinction made to the respondents is difficult to assess. When there were signs of this problem occurring (such as getting stereotypical responses), further probing could be done to understand what the response was based on. Regarding dishonesty, van Asten et al (2009) write that their experiences in East Africa show that farmers sometimes under-report their access to resources (such as farm land), for example attempting to attract external assistance, or fearing that the data may be used for tax collection. While resource access is not the focus of this thesis such issues cannot be ruled out, not least since the interviews did have to do with involvement in externally funded activities.

Attempting to minimize the non-sampling errors, test interviews were carried out at the beginning of the study and the interview guide was modified according to these results. The interview guide was also reviewed continuously and modified if it was apparent that some question was commonly misunderstood and/or did not result in information relevant to this project.

4 Results

In this section, the findings from the farmer interviews are presented in text, tables and figures. Where applicable, input from the researcher interviews are presented alongside the farmer interview results, as well as comments by the project implementer who was interviewed towards the end of the study. Quotes are provided to help illustrate the views of the respondents, but these are paraphrased and not direct citations. The final version of the interview guide which was used for the farmer interviews can be found in the appendix.

4.1 About the respondents

The farmers were between 20 and 75 years old. 54 respondents were female and 26 were male. The education level varied between none to certificate in education (teachers) but the average was around 6 years (about two years lower for females than males on average in this sample). Household sizes were relatively large, ranging between 2 and 30 with an average of around 8. Farmers were interviewed in 11 out of the 12 villages in Nnindy, according to table 2 below

The farms of the respondents were overall very small, varying between 0.25 to 25 acres with an average at about 3 acres. The majority of the households owned their land, 7 farmers (5 females, 2 males) rented part or all of their land. The vast majority of these farmers grew beans and sweet potatoes, while maize, cassava and matoke were other common crops. Livestock was kept by all but 6 of the farmers, most commonly cows, pigs and/or poultry, but in very small numbers.

The 5 researchers were all male and aged between 36 and 59. Three were based at the Kawanda Agricultural Research Institute (KARI) in Kampala, one at the Buginyanya Zonal Agricultural Research and

Table 3 The number of respondents from each village in Nnindy.

Village	Respondents
Bukiibira	11
Kankobe Ssenero	4
Kankobe Bugabo	3
Kasaalu	7
Kayunga	10
Kikoota	7
Lubanda A	7
Lubanda B	2
Lubanda C	0
Luteete	7
Nnindy A	9
Nnindy B	13
Total	80

Development Institute in eastern Uganda (all four part of the National Agricultural Research Organization, NARO), and one at the International Potato Centre (CIP) in Kampala,

4.2 Research question 1. Characteristics of participation

4.2.1 Participation in project design

This thesis focuses on the implementation stage of the Nnindye project, but participants taking part in project planning and design is often seen as a prerequisite for calling a project participatory. Therefore an implementer was asked to describe the development of the project, beyond identifying agriculture as a priority area. According to her, the Nnindye project was designed in collaboration with the residents who were represented by elected leaders from each village. During a ranking exercise, all the possible enterprises were listed by the farmers, and growing matoke was eventually chosen as there was a belief that this could be a marketable and profitable crop. Nnindye is a “sweet potato area”, but the idea of improving sweet potato cultivation was rejected by the farmers. The implementer described how there had been strong reluctance to focusing on traditional crops that the farmers have grown since childhood as these crops are “part of them”, and because they wished to venture into something different that could be marketed. Acknowledging that they could not force upon the residents what they do not want, matoke was agreed upon despite concern among the implementers that it is more expensive to grow and has more disease problems than many of the alternatives.

4.2.2 Characteristics of participation in implementation: overview

Aiming to identify what kind of participation the project is achieving and how the farmers themselves view their roles in it, the interviews explored:

- what the farmers felt they got out of participating
- how they themselves contributed to the project
- the influence they felt they have on the process

The majority of the participants were members in the project and had been involved in the matoke demonstration gardens. Eight respondents had leadership responsibilities. Overall, the vast majority of the participants could identify ways in which they had benefited from being part of the project, most commonly getting materials from the garden and/or obtaining knowledge. It appeared to be more difficult for the farmers to state how they themselves had contributed, and not all felt that they had. The benefits and contributions that were identified are summarized in the figure 1 below.

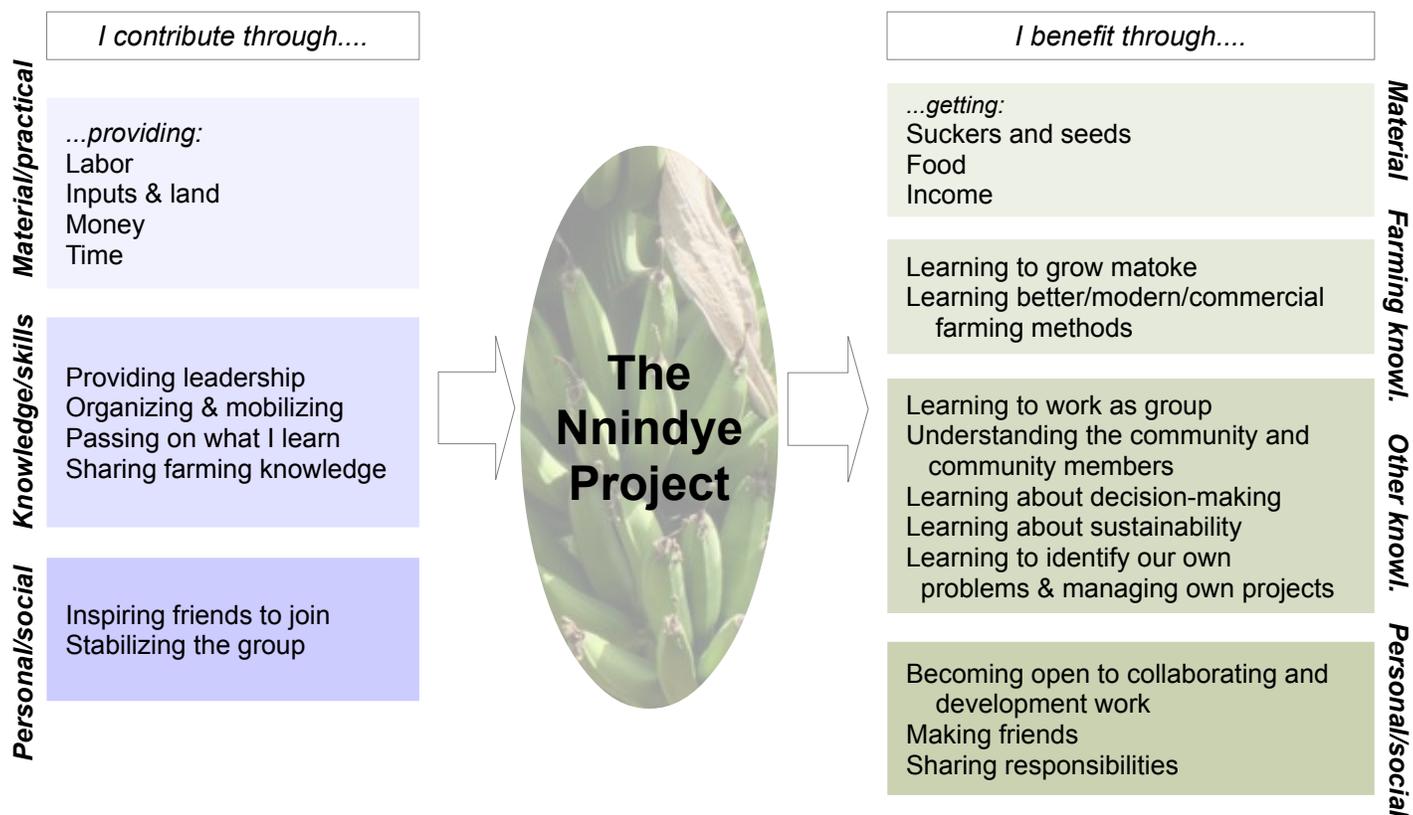


Figure 1 A categorized summary illustrating participants' views on how they benefit from the project and how they themselves contribute to it. Gaining plant materials, food and income was the most common benefit identified (by almost all respondents), followed by acquisition of knowledge – primarily on farming but also other kinds of knowledge. The model does not reflect frequency of replies, but it can be said that farmers most commonly felt that they contributed through carrying out practical tasks in the garden or providing inputs, land and time. Many also stated that they help through organizing activities and mobilizing the community. Through one's personal qualities and social role farmers could also contribute through positively influencing their friends and other project members. Photo taken by the author.

4.2.3 A pragmatic view on participation

Both when it came to how one benefited from the project and how one contributed, responses that could best be described as material or practical were very commonly given. Around half described how they had gotten plant materials from the demonstration gardens (usually so called banana suckers or “plantlets”) that they had planted or would plant in their own gardens. Some also said that they had gotten some extra food or income directly from the demonstration garden. Many brought up material benefits in combination with learning, but some mentioned only this, and there were also a few who said they had not benefited as the plantlets they had gotten had died.

As for contributions, the most common response (given by a third) was that one contributed to the project through working in the demonstration garden and thus help maintaining it. This could be activities like weeding, pruning, digging and mulching. A few also said that they had provided inputs like manure to the garden. “Time” was also a relatively common type of response, both from people who had been working in the garden and from farmers who had devoted a lot of time to leadership responsibilities.

This practical view of what being involved in the project means was reinforced when the farmers were asked whether or not they had an influence on what was going on in the project. It was common for people to reason that they did have an influence since the work they put in was crucial for the project to continue. It was mainly leaders who expressed that they had an impact in the form of decision-making, while a few members stated that since they aren't leaders, they cannot influence.

The researcher interviews indicated that this pragmatic view on participation is not unique for these farmers. Several of them indicated that in their experience, farmers generally have an interest in activities they think will benefit them in the form of better yields and/or income, that they need to see concrete effects preferably relatively quickly.

4.2.4 Exchange of knowledge and skills

Many (around a third) mentioned learning as part of how they benefited. The most common kind of knowledge acquired was how to establish and maintain matoke gardens. Some farmers explained how they had learned to prepare holes to plant in, how to prepare compost and manure for fertilization, and how to protect the crop from pests and diseases. Others stated that they had learned methods that were more modern or commercial.

There were also respondents who said that they had learned on matters not directly linked to farming. Other kinds of learning that was most commonly brought up was how to collaborate with other people, work as a group and organize the work together, learning about the community and about other people, and learning about the value of development work and of working together in general. A few other examples were also given; learning about decision making, sustainability, and how to start up own projects.

“I have gained better understanding of different community members through interacting with them. And I've learned about decision making, since we have been the decision makers, instead of having things imposed” (Female leader 32, Kayunga)

“I have realized that you can produce more when you are working as a team” (Male 29, Kayunga)

“I have gained knowledge about diagnosing our own problems that we have in the community, instead of just having to be told what's wrong and what to do. And I've learned about starting up my own projects, from establishing to getting benefits out of them” (Male 45, Kikoota, involved in the initial baseline survey)

Relatively few farmers brought up that they had contributed to the project with their own knowledge, but it was mentioned on some occasions. Usually no specific examples could be given, rather the person felt that as farmers they knew certain things from experience. Passing on what was learned through the project to other community members was also seen as a way to contribute.

It was more common, then, that other kinds of knowledge and skills were brought up – a common form of contribution was through organizing and/or leading the work, mobilizing others. It should be noted that these sometimes appeared to be viewed more as practical contributions (putting in time and effort) rather than being viewed as forms of personal knowledge and skills by the farmers themselves, but both could be found. Compare for example the following statements:

“I purposely joined to improve the leadership. And I have been able to convince many others in the village to join, in particular I have mobilized other women to participate.” (Female leader 38, Kayunga)

“I support the project through being a member, and taking ahead what the project managers plan. I have also contributed through mobilizing the rest of the community, and the project can't happen without members” (Female 32, Lubanda A)

4.2.5 Social and personal dimensions to participation

For some farmers, participation in the project was associated with how one related to the community and even to oneself. Several farmers said that involvement in the project was having positive impacts on their social life and that they had made more friends. A few farmers made statements that signal that participating in the project has been empowering;

“I have learned that if you are courageous, you can achieve more things” (Male 26, Luteete)

“I have never gone to school, and now I am a leader in this project” (Male 38, Luteete)

There were also some that felt they contributed through their personal characteristics and their position in the community. Through being loyal to the project and being an active member, they were role models to others and stabilized the group. They also felt that they could motivate and inform their friends about work that needed to be done in the garden and meetings that were coming up.

4.3 Research question 2. Emerging issues

The participating farmers were asked to share how they felt about the project at this point and if

they had any concerns they wished to share.

4.3.1 Local “politics” and dissatisfaction with leadership

When interviewing both participants and non-participants, one aspect emerged as particularly common and potentially serious. Respondents in several of the villages complained that for different reasons, the benefits of the project were not shared equally among the members. This criticism was most often directed towards the people in charge of leading the projects in the villages, but farmers also expressed that there is a need for the implementers to follow-up what happens in the project to ensure that those who are intended to benefit really do.

“I’m not entirely happy, some in the group has been suppressed and the sharing of our produce is not fair. And some people don’t show up. I would suggest choosing new leaders, but I think the same problems would arise. The leadership is poor, it’s not balanced, and I don’t feel I can air this out to them. The project implementers need to follow up on what happens in the villages” (Female 40, Kayunga)

“There should be better moral in the leadership. Sometimes the benefits are retained within the leadership and doesn’t reach the grassroots” (Female 62, Kayunga)

“We need more guidance on how to share the benefits from the banana garden. People joining late have been told to contribute with cash, and some complain about that. So far the benefits have not been shared equally. Since the project has been introduced they [the project implementers] have been too quiet about it” (Female 38, Nnindy B)

For some non-participating farmers, similar concerns were the reason why they did not get involved. One person even declined to be interviewed due to strong discontent as he felt that he had been excluded from the project. Others instead took the opportunity to share their concerns;

“When organizations are working with communities the implementers select certain people to give aid, they are selective on who to give and not to give. The local politics in the villages divide people at the grassroots, if you are not in the same group as the leaders then you are reluctant to join” (Female 50, Nnindy B)

Several researchers emphasized the importance of avoiding building projects on existing power structures, as they don’t know how these function and it may prevent people from participating. It is important that leaders are invited to take part, but not to assume leadership. As for “politics” developing within the groups, keeping groups as small as possible was mentioned by one researcher as beneficial. Other things that were pointed out were the need to keep the process open and transparent to avoid “cliques” from forming while others don’t seem to benefit, and that the researcher can encourage the group to stay together through making people understand that if they don’t, there will be no project and thus no benefits.

4.3.2 The need for sensitization and monitoring

Some issues were brought up that signal that the project objectives and methods have not been fully anchored in the local communities. Several farmers even pointed out explicitly that it is important for the community to understand why the project is being carried out, and why they should be part of it – the need to “sensitize” the community – but also showed an understanding for that this is a difficult thing to do.

“A lot has been invested in the project, but the response in the community has been poor. People have a poor attitude towards cooperative farming, then when they saw the benefits they wanted to join after all, but then the existing members felt that we were being cheated if we let people join now that it has started to pay off. Some people think they won't benefit since they are so many” (Female 30, Bukiibira)

“I think there is need for more time in order to achieve the goals, five years is not enough. It is a slow process to sensitize the community and it is not easy” (Male leader 56, Nnindy B)

As touched upon previously, the need for monitoring or follow-up was also brought up on several occasions. Some farmers felt that the project (or some aspects of it) was probably not going as was planned from the beginning or that the benefits didn't reach as many as they could.

“There is need for continuous follow-up on what is being done. The people on the community councils can easily forget the objectives, so project implementers need to follow up. The council meetings, the leaders need to be transparent, they need to discuss and update on what is going on in the field – what's being done, what are the weaknesses” (Male 45, Kikoota)

“You need to do this [going out to talk to community members] to reach different groups in the community. The community committees need strengthening, because the project is meant to benefit the entire area but now very few benefit since there's no publicity. Only an exclusive group is getting the knowledge. You need ways to reach out to everyone in the community, in the way that you are doing now” (Female 32, Lubanda A)

The implementer explained that following up on certain aspects of the project (like giving materials to the groups) through talking to leaders and a few participants is part of her routine job, but other than that there is no strict monitoring. The mid-term evaluation should be done soon according to plans, but they are not sure if they should do it. The donors say they should, but have not provided the resources to do it.

4.3.3 Farmer compensation

Early in the research process, it became clear that the issue of compensating farmers for the time spent on project activities was potentially a problematic issue. Therefore, farmers were asked how they felt about this issue. The majority reasoned that this was not something that they expected, as they benefited or expected to benefit from the project in other ways. Some even appeared to find the idea of being paid absurd;

“When you go to school, do you expect them to pay you?” (Male 75, Lubanda A)

“There is no need for payment, we are volunteering and we obtain skills. We are no maids. And we gain ideas from other members” (Female 58, Nnindye A)

“We were told from the beginning that this was not going to be paid, and that it is for our own good. I wish everyone would think so” (Male leader, Nnindye B)

As hinted in this last quote, though, there were others who felt differently. Some reasoned that since they left work at home, they needed to be compensated for their time (in cash or food). Many of them especially emphasized that when the activities take a lot of time (a full day) or require transport, they should be compensated.

“Yes, when things take a whole day I would like to be compensated. As a leader I have been able to persevere, but others have had to drop out” (Female leader 38, Kayunga)

“There are 2 categories of people; one that goes to learn, benefit from the knowledge and implement what they have learned. Others get nothing out of the knowledge and skills, and they feel like they should get something for their time” (Male 45, Kikoota)

“It wouldn't be fair for someone to give their knowledge and have to pay for it. Though there have been some problems because in the beginning we were given food which made some expect that they would always receive something, cash or in kind. After a full day it may be good to offer food or drinks, but for a few hours people shouldn't expect it” (Female 57, Lubanda B)

This issue of diverging expectations appeared to stem also partly from the fact that an NGO working in the same area tends to pay people to participate in their activities.

“[NGO] pays us but UPFORD never does. At times we are given food but it's not always up to standards. We'd prefer to get money instead of sitting the whole day with only food. Money we can budget on our own” (Female 32, Lubanda A)

According to a project implementer, this practice of paying participants is problematic as she feels that the NGO that farmers referred to is more concerned with getting many people to come than to achieve any actual results. Also, the fact that the two have different practices causes confusion and expectations. There have been attempts to discuss this issue with the NGO, but without results.

When there are several working in the same area, to them [the residents] they are all the same. But we have different approaches, they give aid, we help people help themselves, we try to help them address their problems. And they always give them a little money for attending things. It's their way of doing things, we have tried to discuss but have failed. But when they have their activities, people see it as feasting day, people turn up to eat” (Nnindye project implementer)

When the issue was brought up in the researcher interviews, the response was unanimously that the practice of paying farmers to participate in projects, other than possibly for transportation, creates the wrong incentives for farmers. The problem of conflicting approaches seen in the Nnindye project does not appear to be unique;

“Originally the NAADS paid farmers, and some NGOs still do, which makes some think they will get money. Then when they don't, they feel like it is a waste of time. You need to be clear from the beginning, that there is no payment but it is for their own benefit. They will be interested if their yields will increase” (NARO researcher)

4.3.4 Fading engagement and unmet expectations

Something that was brought up a few times in different villages was is that engagement in the project appears to be fading among some participants, including leaders.

“The leaders are becoming less active in the group, it is rare now that they attend, I don't know why. [...] It is difficult as only 2-3 people show up to work or for meetings. If the leaders don't engage then nothing will be able to continue” (Female 74, Nnindye B)

Similar issues was being brought up in more than one village. Two of the researchers indicated that in their experience, such decline of engagement can happen when the farmers are not seeing the results that they were expecting from a project, when results appear too slow, and/or when the benefits aren't concrete enough. A leader in one of the villages showed signs of such disappointment;

“We made a 5 year plan, and now 3 years into the project what has happened so far I thought would take only one year. It is moving very slowly. [...] We know the budget that the project got in the beginning but we haven't been told how much has been spent and on what. The project has not met our expectations so far, I think the people who helped us get the funds [UMU] are they ones that have benefited from it, not the community” (Male leader 35, Kasaalu)

Clearly this farmer also felt strong dissatisfaction about the way the project has been managed financially, as there appears to have been little transparency as to what money has been used for. A project implementer explains this the following way; at the beginning of the project, the leaders were informed about how much money there is to fund the project, and this was interpreted as money that would all go to the “grassroots”. However, a significant amount goes to operating costs such as salaries for the implementers and running costs, and this has not been understood by all. Now that it's been identified, it has been decided that the issue will be addressed at an upcoming meeting where the implementers, the donors (Note Dame) and resident representatives are all present so they can see for themselves that the money “is not in their accounts”.

4.4 Research question 3. Farmers and “outsiders”

4.4.1 A chance to obtain knowledge

To provide a backdrop for this question, the farmers were asked to identify from where or who they had obtained their farming knowledge and skills. About two thirds of the respondents said that they at some point had been in contact with extension services, though for some this project was the first occasion. Own experience, however, was the most common sources of farming knowledge among the respondents, followed by knowledge from parents and extension services, while very few identified fellow farmers. Interestingly, there were some who were part of the Nnindy project yet still stated that they had never interacted with extension staff or researchers personally, the result of having missed training sessions.

The farmers were furthermore asked to share their opinions on the knowledge of scientists extension workers in regards to farming practices in their area. An overwhelming majority responded that they thought researchers and extension workers are knowledgeable, and justified this with the fact that they usually are able to answer any questions they have and help solve problems that arise. Some farmers appeared surprised by the question and indicated that this is something that is taken for granted.

“How can you teach others if you are not knowledgeable?” (Female 68, Kayunga)

There were some reservations; some farmers stated that while they felt they were generally knowledgeable, there were some problems they had not been able to solve or lacked sufficient knowledge of. Others complained that recommendations were hard to follow, or that the problem wasn't their knowledge but that rather that they didn't come to the area enough. Several also expressed discontent with other community members' interest and commitment to learning and adopting new knowledge and methods.

“They are knowledgeable, but some recommendations have been hard to adopt. Like using different tools for different things, it's hard when you only have a few. It's also sometime been too late and the disease has already spread – we need advice on what to do then” (Female 57, Lubanda B, regarding advise on avoiding banana diseases)

When asked about the interest in more interaction with outsiders than is currently the case, almost all farmers expressed an interest in this. Similarly to the previous question, the motivation for many was that they viewed it as an opportunity to obtain more knowledge. Some expressed that it would be good as it could also motivate them in their work.

“We need to work closely with knowledgeable people, because our traditional methods of farming are no longer effective. Like when diseases come and we need to use chemicals. And we don't know about how the market works. So there is a need for contact” (Male 45, Kikoota).

“Recently we learned about post harvest handling methods for beans.. those kind of issues we had not thought were very serious before” (Female 29, Nnindyé B)

“We gain a lot from being in contact with them; the more the better. We learn from each other” (Male 56, Nnindyé B)

4.4.2 Potential hurdles to interaction

There were, however, some respondents who felt that it would be difficult for them to interacting with outsiders or that there were certain conditions that would have to be fulfilled for them to be interested. It was almost exclusively non-participants who had such reservations about collaborating, such as:

- preferring an individual approach where the focus was the own farm, rather than a group of farmers
- feeling that he or she did not have the ability or energy required due to old age or health problems
- needing someone to first explain how he or she could benefit from such activities

One respondent said that while he wouldn't mind interacting with extension staff or researchers, he would prefer just being given capital, and another said that she saw no need for it as she had no problems as a farmer.

The researchers who were interviewed confirmed that generally, farmers they interact with are eager to obtain new knowledge and attitudes towards them are generally positive. However, some issues were raised by the researchers;

- Farmers can get “participation fatigue” - when the same farmers are asked to participate over and over again, they can get tired of it, especially when the same tools are repeated. On the other hand, it can also be easier to collaborate with farmers who have previous experience of collaboration.
- When there have been negative experiences in the past involving researchers and extension workers, farmers can be reluctant to get involved.
- It sometimes depends on the topic or technology that is in focus; whether or not the farmers think that it is important to them. Natural resource management was used by two researchers as an example of a somewhat difficult topic; raising profitability is what the farmers are interested in.

4.4.3 Treatment by outsiders

Other than the issues listed above, any negative or hesitant feelings towards outsiders had to do almost exclusively with experiences where scientists and/or researchers had come to the area only to give their recommendations.

“Sometimes they [scientists and extension] have predetermined approaches that do not favor

us” (Male 36, Bukiibira)

“It has become a bit better, but there are still people who just come and leave and then nothing happens. But at least in this project things have been done” (Male 26, Luteete)

“I am a bit confused about researchers. Previously they have come here and just told us what we should do. But it has been better in this project” (Female 58, Nnindy A)

As suggested above, there were some signs that participating in the Nnindy project had been a positive experience compared to what they had seen in the past. The farmers who expressed this pointed out two different aspects; one was that they were able to see concrete action in this project rather than just “talk”. The other was that they felt that there had been more dialogue than before and that they are in charge of the process to a greater degree, as opposed to a situation where farmers are “told what to do” or used to collect data.

“My opinion of them has been influenced positively, because they brought something good. Others just come and gather information and go” (Female 45, Nnindy A)

“Before, we only had people come and talk theoretically. Now I also feel comfortable bringing up issues and I feel that they listen” (Female 27, Kankobe Ssenero)

“The way we have been guided to manage the project on our own is positive. Previously, it has more been that we have been given recommendations and been told to follow them” (Female 42, Bukiibira)

“I feel now that extension workers can have a positive impact on our livelihoods. I think I will no longer have to buy food, which I have had to do some seasons.” (Female 57, Lubanda B)

The researchers did not recognize the issue brought up in the literature of researchers feeling negatively about collaborating with farmers. On the contrary they stated that they think that participatory approaches generally are well regarded or even standard today among agricultural scientists.

“It is the most interesting part of the job... being in the office is boring. I think most researchers enjoy being out in the field with the farmers. That problem is something of the past” (researcher, NARO)

4.5 Research question 4. Gender

The findings regarding gender issues in this project are divided into two main themes; the impact of gender on who participates, and the role of gender in interaction with “outsiders”.

4.5.1 Gender and participation

As these findings can not be said to be statistically representative for the entire population due to the sample methods used, it is of little interest to look at the gender distribution among the participants and non-participants included in the sample. According to a project implementer, more women than men are active in the project, reflecting the high degree to which women are involved in agriculture in the area and the country in general. Unfortunately, information regarding the gender distribution among the project leaders in the different villages was not available. In this study, 8 leaders were interviewed and only 2 of these were female, but whether or not this reflects overall distribution is unknown. What is known from the list of parish development committee members (consisting of one representative from each village as well as the parish chief) is that the majority of these are male.

This corresponds well with the researchers' testimonies, as they all felt that women tend to be more active in projects than men. One researcher complained that young men in particular are difficult to reach, as they are more interested in things like driving boda-bodas (motorcycle taxis) than in farming, while another said that older men are difficult as they spend a lot of time drinking. Two had witnessed cases where leadership did not reflect the gender distribution;

“ We usually get more women than men. Though sometimes even if it is all women in a group, the chair person can be a man ” (researcher, KARI)

Gender also emerged among the many factors that can cause a farmer not to participate. Several female non-participants stated that their husbands had been opposed to them joining the project. A male respondent who was not a member of the project suggested that this was due to the nature of the activities being more for women, saying that it is women who do the digging. One woman pointed out an issue from a previous project where they had been given seed – not of participation but on who benefits from it;

“When we get seed, they give to the household, and what the woman wants is not what the man wants. They should give seed to individuals instead of households” (Female 50, Nnindy B)

4.5.2 Gender and “outsiders”

The farmer interviews focused particularly on one gender issue; what the farmers felt about the importance of gender among the scientists and extension workers that they interacted with. The majority of the respondents, both male and female, stated that they did not think this made any difference, a common response was that it is the knowledge of the person that matters rather than their gender. However, there were some differing views. Most commonly, it was female respondents who expressed that they preferred interacting with women – one fourth of the women

expressed this. These women often reasoned that they felt they would be able to be more open with another woman, and that another woman would have a better understanding of their situation. Some expressed that from a woman they could get support on issues beyond agriculture that are important to them. One woman pointed out language barriers between men and women, saying that men sometimes did not explain in the local language while women more often knew the “right” words.

“Women here are in a difficult situation because of our heavy workload. Other women could more easily understand that” (Female 38, Kayunga)

“Given the choice, a woman would be better. A lady could understand things like marriage issues, and I'd be able to express myself more freely with a woman” (Female 48, Kasaalu)

Only one male (a non-participant) responded that he would preferred males;

“I would prefer men, I think it would be difficult to have a dialogue with a woman, though I can't say exactly why” (Male 29, Nnindye B)

Lastly, one participant pointed out the issue of so called “gendered crops”; while not expressing a preference for either gender, he said that by nature men and women are good at dealing with different crops.

“Gender matters, men and women have different mindsets. I think that men teach better on crops like coffee, and women are better at teaching about things like bananas and beans. It's determined by nature” (Male 36, Bukiibira)

The implementer who translated expressed that this was not something that they had thought of, but that they definitely should. One of the researchers brought up this something that can be important. He was also consulted about matoke, and stated that this is not strictly gendered.

Unfortunately only male researchers were interviewed, but the five had quite different opinions on the significance of gender when interacting with farmers. One stated that it can be important to have a woman on the team when dealing with certain issues, like women's role in agriculture or crops and technology that is used mostly by women (as mentioned by the farmer above), while one said that it does not matter at all, as long as they are from an organization that is well regarded. Another researcher said that when working with “mature” women it is not a problem to have a male researcher or extension worker, but with younger women it could be as the husbands then were more “stringent”.

4.6 Research question 5. Why not participate?

Some issues related to non-participation have already been mentioned above; those related to gender and local politics. Other reasons are presented here.

4.6.1 Uninformed and then excluded

One of the most common reasons for not participating was related to information. A project implementer explained that information is passed on to the resident via a selected farmer who is in charge of informing the rest of the community. Several farmers said that they had not been informed about the project when it started out, or had misunderstood what it was.

Furthermore, some explained that when they had eventually found out or decided they were interested, it had been too late – they had either been rejected by the existing members or they had been asked to pay a fee to join which they could not afford. Some had refrained from asking, out of fear of being rejected.

“I have heard about it [the project] from friends, but I missed the sensitization meetings since I never heard about them. I would wish to join, but I hear that those who want to join now has to pay a membership fee of 10 000 which I don't have” (Female 23, Lubanda A)

“I can't work with the existing group. I feel that I was locked out from the initial stages and then those that wanted to come in later were not allowed to join. The only way would be to form another group now” (Female 57, Bukiibira)

“I was hesitant to join in the beginning due to lack of time. Then when I realized I would like to join it was too late. I'd like to join but I'm worried I would be rejected, since I didn't participate in the beginning” (Male 29, Nnindy B)

The issue with membership was fees was explained further by a project implementer; when the project was set up there were no fees, people contributed in the form of labor. However eventually when more people requested to join, the groups felt it was not fair that others could join and get access to the benefits without having contributed with setting up the gardens. Therefore entrance fees (rather than membership fees) were charged.

4.6.2 Disappointed with past experiences

Negative experiences with development projects in the past also kept some farmers from joining this project. The quote in the previous section was from a woman who felt that local leaders had excluded her from receiving handouts from an NGO when they were carrying out a project in the area, and she did not want to join any projects after that. Another farmer said;

“I don't like working in organizations, on several occasions we have been deceived. There has been unfair distribution of resources, like when we have been given seeds, they have been shared only between the leaders. I prefer to use my own resources” (Male 57, Kasaalu)

4.6.3 Constrained by health and lack of time

There were also several respondents who said that they could not join due to poor health – because of this they could contribute to managing the demonstration gardens and poor mobility made it difficult to come to meetings and training sessions. This was most commonly a concern for elderly farmers.

Others said that they did not have time to be involved due to being involved in other activities like household responsibilities, trading, teaching and. It was mostly women who said that they did not have time, though one male respondent whose wife was involved said that it was too time consuming for both to participate.

4.7 Summary of the results

The following model (figure 2) was created to provide an overview of the findings presented in the results section. These will be analyzed in chapter 5.

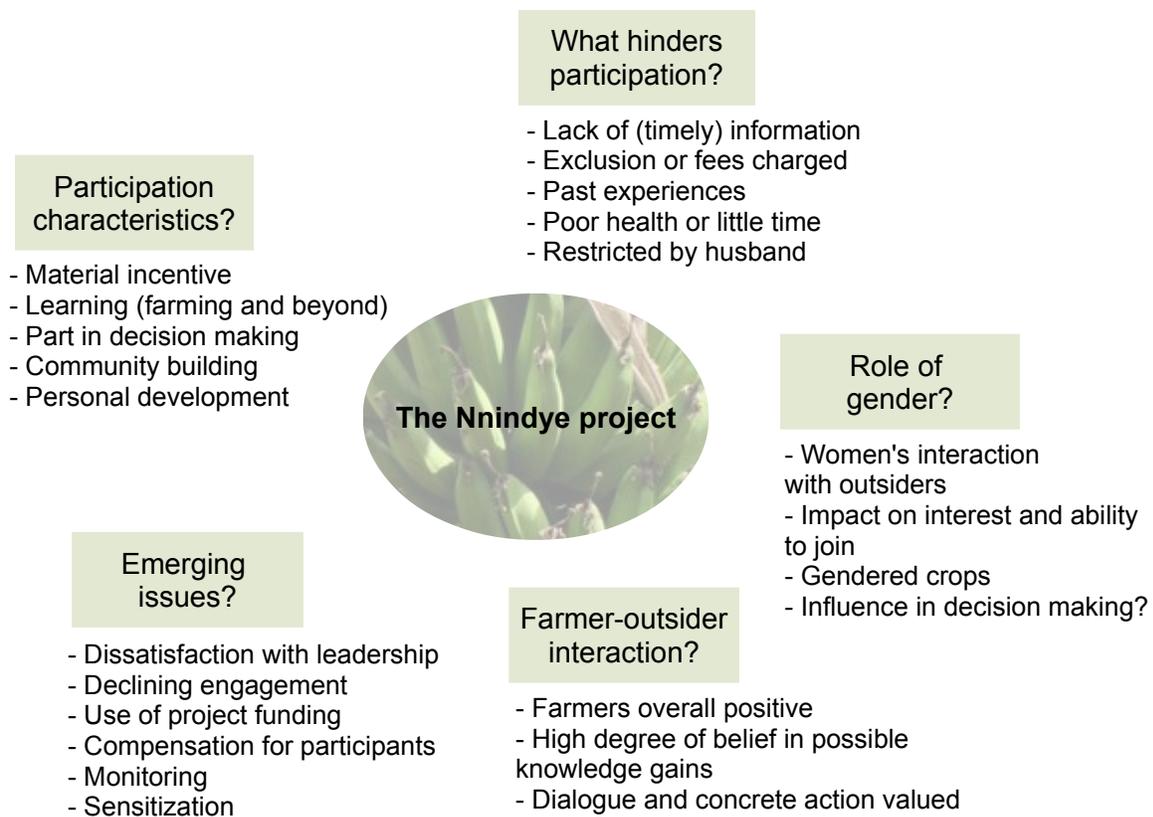


Figure 2 Model representing a brief summary of the results for each research question which will be further analyzed in the following chapter.

5 Analysis of results

This thesis aims to explore the challenges of the Nnindye project to achieving agricultural development that can be sustained in the long run, and what lessons might be applicable to future efforts in similar settings.. The following research questions were set up:

- 1) What does it mean to be a participant in the Nnindye project, in terms of benefits, contributions and influence?
- 2) What are the participants' attitudes towards the project and the progress made so far, and are there any issues that appear to be particularly serious which need to be dealt with in order to achieve the desired outcomes?
- 3) What characterizes the relationship between farmers and “outsiders” (scientists, extension workers)?
- 4) Are there gender related issues that need to be taken into consideration by the project implementors in assuring that the project benefits both men and women?
- 5) What prevents non-participating farmers from wanting to, or being able to, participate in the project?

The data from the farmer interviews were analyzed one research question at a time and the data was categorized according to the themes that emerged. The researcher interviews were then used to compare and contrast the researchers' experiences of using participatory approaches in Uganda to the findings of this case study to and to get some idea of the generalizability of the findings. The results used to answer each research question are analyzed here in relation to the literature review that is presented in chapter 2 of this thesis.

5.1 Research question 1. What does participation in the Nnindye project mean?

As noted in the literature study of this thesis, the term participation is inherently vague and is not a guarantee for success. therefore there is a need to closely observe what kind of participation each individual project involves. Determining what “type” of participation is occurring is not easy, and it is probably hard to find a project that neatly fits into the categories on the “participatory ladders” that have been created by different scholars (for example Pretty, 1995). However it can still be useful to analyze what different traits can be distinguished and what these might eventually mean for the outcome of the project. As indicated in figure 2, and as perhaps could be expected, there isn't *one* type of participation involved in this project. The categorized data suggests that participation in the Nnindye project in particular contain elements of materially driven participation but learning is also a central component. Some participants feel part of the decision-making process in the project. As a result of the group approach, the project can also have an impact on, and is dependent on, how the participants relate to other community members. Finally, participation in the project also appears to be empowering for some members, perhaps

especially for farmers who have special responsibilities. Leaders, and the farmer who had actively taken part in the baseline research in the beginning of the project, stood out among the respondents as those who most enthusiastically described their involvement and what they had gained from it.

Materially driven participation, where people contribute with labor and land in return for cash and food, is particularly interesting as according to Rahnema (1992) this form of participation rarely has long term impacts and activities tend to end when the project does. However, there are some important aspects that must be considered before drawing such conclusions about the Nnindy project.

Firstly, the main benefit that farmers identified was not food or cash that they got directly as payment for labor, but rather materials that they can plant in their own garden. The work and the organization of this work is also the responsibility of the farmers themselves, not an external agent. Arguably these characteristics make for a more long term impact than when payment is direct. Secondly, many respondents also mentioned other benefits like learning – sign of a participation higher up on the “participatory ladder” – and some (leaders) took part in decision-making in both planning and implementation. Clearly it is impossible to classify participation in the project as one type – within a project there can be different forms of participation that in the literature is viewed as both meaningful and superficial. Thirdly, while materially driven and assessed participation has a bad ring to it, it may actually be the result of the participants' own priorities. Several respondents contrasted the Nnindy project with previous experiences and the reason they were pleased was that now, something is *happening* – they are getting something concrete out of it, and that is making them more positive towards participating. This was also emphasized by the researchers as a key to success. Still, it may be true that it is problematic if many participants see the project in purely material terms; for example, what happens if the crop fails? A few respondents already expressed that they had not benefited from the project because their matoke plantlets had been killed by the drought – for some this can be explained by the fact that they had not actually attended any of the trainings held within the project. When this is the one indicator the project is assessed by, it becomes very fragile. The learning and community strengthening aspects of the project are undoubtedly there, only they may not be so evident that the project would be seen worthwhile even if the matoke crop turns out to be disappointing. The lesson here seems to be that for a project to be satisfying to the farmers *and* have impact that is sustained in the long term, there need to be tangible, short term benefits as well as active learning and community building. The fact that few people attend the trainings, according to complaints made by several respondents, must be looked further into. Respondents mentioned several possible causes – from lack of timely information to poor attitudes and “laziness”.

The findings of this thesis interestingly appear to mirror the notion of culturally constructed participation presented by Roncoli et al. (2011). After their research in Uganda, they argue that there is a Western “bias” in defining what meaningful participation is, which does not correspond well to the Buganda culture. In the literature on participatory approaches, “taking part” is not necessarily seen as meaningful participation if this is not accompanied by the voicing of opinions or taking part in decision making, which some but far from all of the participants in the Nnindy

project appear to be doing. However, many of the respondents viewed the fact that they take part (show up at meetings, carry out practical work in the gardens and so on) as making a contribution and even having an “influence” in the project. They reason that without them the project would fail (difficult to dispute), suggesting that one can feel important in the project without being the leader. This doesn't mean that it isn't important to make sure that peoples preferences and needs are being considered and that participants are in power of the process, but that needs to be achieved in a way that is culturally appropriate. If concerns with the project or the group can only be done via the project implementers, as indicated by several respondents, then regular and open communication between the participants (and not just leaders) and the implementers is crucial. It also means that monitoring and evaluation of the project would benefit from being carried out in a participatory manner, since appropriate performance indicators cannot be imposed from the outside.

At the top of many “participatory ladders” one often finds self-mobilizing participation, and whether the Nnindy project is capable of promoting this is too early to say. Still, there are some signs that it could. One participant expressed the wish for the project to evolve into a farmer's organization where the group could grow and sell produce together. This should be viewed in the light of the fact that one thing that makes it difficult for farmers to make a living from matoke in central Uganda today is that farmers are poorly organized (Kalyebara et al., 2007). If such ideas could be helped to materialize, the long term effects of the project could be greater than anticipated. However, first of all this requires farmer groups that are well functioning, an issue that is analyzed below.

5.2 Research question 2. Emerging issues

There is little dispute in the literature regarding the importance of monitoring and evaluation of agricultural development projects (Muller-Praefcke et al., 2010). It is not surprising then that this case study points to the need for implementers to play a more active role in monitoring. Some form of follow-up does occur continuously on specific actions (like hand-outs) but not on the project as a whole. A mid-term evaluation should be upcoming but according to an implementer, funding has not been provided for this. It seems that communication between these two actors (donors and implementers) is not always clear.

Interestingly, the study found that participants themselves are urging for the implementers to follow up what they have initiated because of problems they do not know how to solve. On several occasions, project implementers emphasized that the participants must *own* the process, which is indeed something that is supported by the literature (Opondo et al., 2006; Ugen, 1995). However, promoting ownership of the process is not incompatible with monitoring and providing continuous facilitation. Communication between the leaders and the implementers may occur on a regular basis, but this is not enough – especially when members are discontent with the leadership, as seems to be the case in several of the villages. It is not surprising if farmers who have not previously farmed collaboratively run into issues that they have never had to face before, such as how to share the benefits and how to deal with members joining at different stages. The

results support the argument that “local politics” can be an important challenge. Indeed, one of the most common complaints was that there are some who benefit – usually those elected as leaders in the groups – and some who don't. Whether or not the accusations were justified or not, which is impossible to determine based on this data, it is clearly a source of dissatisfaction. These “politics” seemed like they could build on preexisting power structures, but also arise within the newly formed groups; one woman for example suggested that choosing new leaders would be of little use as the same problem was likely to arise again. Clearly, guidance is required on this matter, especially since several indicated that this is not the kind of issue that they can bring up to the leaders themselves.

The issue of the project budget was only brought up by one respondent, a leader in one of the villages, but deserves attention – it should also be a relatively uncomplicated issue to address, and according to the implementer they had already begun to do so. According to her, the issue was that the group leaders had initially been informed about the large sum of money that the project had been given. However they had not been informed about how this money would be budgeted or updated on how it had been used since, which caused this respondent to feel suspicious towards the implementers and accuse them of keeping the money for themselves. As commented by the implementer who was present during this interview, it is important that the participants understand what part of the funding is to be used for “grassroot” activities, but I would argue that is also important that there is transparency throughout the project so that the participants can see what money is spent on and so that they have a chance to influence this. On the topic of money, the literature supports the practice of not directly paying farmers for participating, and that it can be a problem when people expect it (Opondo et al., 2006). It seems that organization working in the same area should aim to use the same approach, but if this is not possible, then at least the matter must be made clear from the very beginning.

Participatory approaches to monitoring and evaluation have gained popularity as they can be efficient yet still generate large amounts of relevant information, and simultaneously deepen the participants' involvement in the project (Muller-Praefcke et al., 2010). This is an option that could be considered by the implementers, but as pointed out by Parkinson (2009) first there needs to be some degree of consensus among the participants and implementers as to what the objectives of the project really are, and what needs to be monitored. Ideally this would need to be done through a dialogue between implementers and each village group since each group may have different problems and aims. At this stage of the project, as it is still relatively early, it also seems like it can be beneficial to follow up obstacles to participation by sampling farmers who are not members. Here this was done on a very small scale, and still the findings contributed significantly to the understanding the overall challenges in the project.

5.3 Research question 3. The farmers-outsider relationship

The results of this thesis concerning the relationship between farmers and scientists (this includes the implementers in this case) and extension workers (referred to collectively as “outsiders”) indicate that at least on the surface, this relationship is more uncomplicated than was anticipated.

With only a few exceptions, the farmers in the sample generally expressed desire for interaction with outsiders on account of them being viewed as knowledgeable. The researchers who were interviewed viewed collaboration with farmers as enjoyable and were enthusiastic about the mutual exchange of knowledge that it enables. That said, these were researchers who had their own experience with participatory approaches. While they strongly felt that view is the norm today, it would be interesting to look further into this by including researchers who are not experienced with farmer interaction.

Still, there were some signs that this farmer-outsider interaction is not always without difficulties. Several farmers expressed strong dislike for when outsiders come to their area either to solely gather data for their own research, or to just “talk” (especially when they come to tell the farmers what they should do differently). They expressed an appreciation of dialogue as well as concrete action. Their narratives also suggested that sometimes, recommendations they are given signal a lack of understanding for their conditions and preferences. Researchers expressed that participatory methods is an opportunity to do just that – understand the farmers preferences – but also complained that farmers can have negative prejudices against certain technologies that they promote, and that there is little interest in doing things that are not directly linked to boosting productivity (such as environmental conservation).

5.4 Research question 4. Gender

What is striking regarding the results on gender is that it seems like gender dimensions can be found in practically any aspect of the project. Directly or indirectly, gender can determine whether a farmer participates in the project or not. It can influence what opinions are voiced and what knowledge is exchanged when a farmer interacts with an implementer, researcher or extension worker. It might even influence whether or not a trainer is deemed suited to teach on a certain topic. As pointed out by Cornwall (2000), being aware of gender is clearly not synonymous with focusing on so called women's issues or counting heads. Both the case study of the Nnindye project and the researchers' testimonies seem to suggest that it is in fact men that tend to be difficult to involve in participatory projects. That's not to say that it is necessarily a problem that there are more women than men; just like accepting significantly more female than male respondents in this study on account of women playing a bigger role in agriculture, perhaps it would be a weakness if they *weren't* in majority.

As discussed above, one's importance in the project is not necessarily judged by how big a role one plays in decision-making, but being underrepresented in decision-making can have negative impact if women's priorities and concerns aren't addressed. This study did not identify any signs of that being the case – the crop grown, for example, is neither a men's or a women's crop. Still, it is something that the project implementers need to be attentive to, should it happen. As an example, one woman complained that when seeds were given to households (as had happened in other projects) then the men decided what to get and women's preferences were neglected, so instead hand-outs should be given to individuals. It also seemed that signs of the project having particularly empowering qualities for individuals were shown primarily by farmers who had some

special responsibilities (like leadership or taking part in the baseline research). This kind of empowerment needs to be attainable for women and men alike.

Hall & Nahdy (1999) argue that agricultural research teams working with participatory methods should include both men and women as some issues can be sensitive and since technology and crops often are gendered, but that this rarely is the case as majority of the professionals in Uganda's agricultural research system are male. The results of this study points towards the same conclusion; while most respondents claimed to not mind about the gender of the person they were interacting with, about a fourth of the women said that they could be more open with another woman or felt that a man would not be able to understand her situation like a woman would. This does not necessarily mean that these women would not be able to interact with a man; some indeed expressed that it was not determinant for their participation, but that there were certain benefits with having a woman (“there is no difference, but women are better”). In the Nnindye project, the involved extension workers have all been male though among the project implementers (who also hold training sessions) there are both males and females. For training sessions, it may not be possible to choose the person involved other than by who is available with the right competence, but when it comes to facilitating and monitoring the project, the implementers can take this factor into consideration. Out of the men it was only two who expressed that it made a difference to them; one thought it might be difficult to have a dialogue with a woman, and the other brought up the issue of gendered crops, something he viewed as “determined by nature”. Researchers on the topic would rather argue that it has to do with the fact that men tend to be in control of the crops that are the most profitable (Gladwin, 2004).

When interviewing the project implementer who had been present as a translator, she indicated that the issue of gendered crops was not something they had considered but that they must. Indeed, the crop that is targeted by the project may have a great influence on who will participate and benefit. According to one of the researchers, matooke is not a strongly “gendered” crop as it is used for home consumption but can also be profitable when the conditions are favorable, which may well work in the Nnindye project's favor. However it was interesting that this issue, and in fact gender in general, didn't seem to have been considered by the implementer. Also among the researchers there were those who did not consider gender to be important while the others who did.

5.5 Research question 5. Why not take part?

Finally, the issue of non-participation. Literature on participatory research and development typically focuses on the participants; thus what happens within the project as it is being implemented. This is as it should be. However, this often leaves out is the people that could have participated (and hopefully benefited from doing so), but don't. This thesis tried to include this aspect through exploring the reasons for not participating in the Nnindye project. As expected, there were as many unique reasons as there were respondents, but some themes could still be distinguished.

One of the biggest challenges to getting people to participate appeared to be information related (not getting information about the project, getting it too late, or getting incorrect information). This is something that is not often brought up in the literature although Sanginga et al. (2006) found a negative correlation between participation and remoteness of the village, which at least in part may be a result of information difficulties. An “selected informant” kind of approach like the one used in this project may be the best alternative there is, but it still risks leaving out people in more remote areas and/or people who don't interact much socially. Above all, the communication constraints have to be taken into account in the planning of project activities. More time has to be set aside for notifying people than would be necessary in a place where internet, mail and phones could be used to reach every household. Perhaps the initial stage during which the residents were first informed and sensitized should have been given more time if all residents were to be reached, but given that this project operates within a 5-year program, that time would then be taken from the subsequent stages.

There can also be resistance to increased participation among those who already are members. In several villages, conflicts seem to have arisen due to the fact that those who (for one reason or another) did not join the project initially later have requested to join, but have been turned down or been charged fees. Others have only heard of this happening but fear getting the same answer and don't even attempt to join. The reasoning in the group seems to be that these “late-comers” have not contributed with labor when the garden was established, and should therefore not be able to benefit now, or should compensate for it through paying an entrance fee. While this is certainly understandable from their point of view, it also hinders the impact of the project from reaching as many people as possible, and it creates tension within the community. One respondent expressed that there is a need for the implementers to guide them on this issue, which indeed seems to be the case. Some groups have demanded that new members contribute with labor corresponding to the work that was done when the garden was established, which may be a more suitable approach than to charge money that some people don't have. The possibility of forming additional groups was brought up as well. Given the difficulty of having large groups with many different wills which was pointed out by a farmer as well as one of the researchers, this idea has definite advantages, but the financial feasibility is another issue. In any case, facilitation on this matter is urgent.

Some people don't feel that they have time for it. It is impossible to determine on such a small sample but there may well be a gender aspect to this, as some women complained of having a high workload (something that is indeed supported by the literature). Gender and gender relations appears to be a complex issue in non-participation. Some women stated that their husbands did not allow them to join, and there were also men who said that they were not members because their wives were or because it was for women, and it seems indeed like more members are female according to the implementer that was interviewed. These results seem to concur with Sanginga et al. (2006) who found that participation can be related to gender itself but also to the decision-making pattern of the household.

Some feel they cannot join due to their poor health. Most commonly this constrains the elderly,

which brings up the question of what is lost in terms of knowledge by not being able to include those who are likely to have the most experience from farming in this area. The way that being a member of this project depends to a large degree on one's ability to contribute with managing the demonstration garden is one thing that makes it difficult for those with limited physical capacity to take part. In light of this it seems surprising that Sanginga et al. (2006) found no correlation between participation and age, but perhaps this is due to limited participation among young people (for other reasons), and that the upper age group is quite small.

Negative attitudes based on previous experiences emerged as another factor behind the decision not to participate. Respondents cited cases where they felt they had been deceived or excluded, either by implementers or by local power figures, or complained that researchers and organizations just “talk”. The responsibility that is involved in carrying out development projects cannot be stressed enough; the failure of a project can negatively effect a person's whole perception of development efforts and even collaborative work in general.

6 Discussion

The explicit goal of the Nnindye project is to boost income generation and food security at the household level. This is hoped to be achieved through the establishment of matoke demonstration gardens that can provide the farmers with income, food and plant materials, and simultaneously serve as a “classroom” for the farmers. The aim of this thesis was to explore the challenges involved in the implementation of the project that can play a role in its long term impact. As the Nnindye project uses a participatory approach, lessons from participatory development and research (particularly from Uganda) were used as a starting point for the study. In this section the implications of the findings for the project itself are discussed, as well as the the lessons that can be useful to other researchers and development practitioners working with participatory approaches in similar settings. In general, the findings of the case study were mirrored well in the testimonies of the researchers interviewed, which speaks positively of the general applicability of these findings.

6.1 Implications and limitations of the study

The aim of this study was not to identify whether or not the issues that are described in the literature were indeed also *the* most important in this case, or in any way rank them, but to qualitatively assess if and how these and other issues manifest themselves in the Nnindye project. To a large degree the findings support what has been found in previous research from Uganda

despite the fact that the project studied here differed quite a bit from those studied previously. There were a few surprises though, and many issues that had not previously been described or had not been supported by much empirical evidence. The broad spectrum of issues discussed in this thesis is both a strength and a weakness; it undoubtedly made it challenging to bring all the findings together in a cohesive report, and some certainly have enough complexity to fill a thesis on their own. On the other hand, hopefully this width means that the research can be a provide a starting point for both the stakeholders in the Nnindy project and others looking to use or explore participatory approaches. If nothing else, the message is clear that implementation of participatory projects is a complex process that requires a wide range of knowledge and skills as well as a big dose of reflexivity.

Exploring what it actually means to be a participant in a participatory development project turned out to be particularly challenging, but ultimately it did help understanding what the project is achieving. This is a contribution to the gap between theory and practice that appears to exist in the field of participatory approaches. Participating in the Nnindy project is, according to the project objectives, an opportunity for the farmers to benefit materially and to gain farming knowledge. These were also the most common benefits identified by the participating farmers in the sample, so in that sense the project appears to be having the desired impact for many of its participants at the time being. The ultimate question though is what lasting impact the project can have, because a development project arguably should be aiming for long term change. If at the end of the five years, some farmers in each village have their own thriving matoke gardens and the knowledge required to manage them, then having participated in this project will have been of great value to those farmers and their families. At the household scale, this would be a contribution at least to the economic sustainability. But echoing the notion of O'Gorman (1995) that participatory projects can have the power to generate significant change even if no actual problems are solved, for several reasons it would be wise to pay attention to the issues brought up in this thesis. One is that the group approach chosen, where members together own and manage the gardens, means that in addition to the objectives mentioned above, the project may even have the potential to be a starting point for better organization of farmers in Nnindy. Forming relationships between people is not an explicit goal of the project, and perhaps it shouldn't be – as expressed by both the Nnindy farmers themselves and the researchers included in the study, farmers tend to be motivated by tangible impacts like improved yields and profitability. But for these impacts to be lasting and contribute to all three dimensions of agricultural sustainability at the community level, the processes and people needed to achieve them cannot be left adrift. Friction between project participants, rather than the performance of the crop, appears to be the main cause of conflict and disappointment among the participants which may threaten the sustainability of the project (and judging by the comments made by some of the non-participants, the ability to undertake other participatory development or research projects here in the future).

The problematic farmer-outsider relationship that was described in the literature did not manifest itself very clearly in this study. Of course, given that the study itself was based largely on farmer-outsider communication, the risk of courtesy bias is hard to deny. It was also a concern that farmers would not be able to be open on this and other questions due to the fact that one of the implementers was present as an interpreter, and while many critical views were brought up it

might have held back some. There are other research approaches that perhaps would be more suitable for exploring farmer-outsider relationships, such as participant observation, but time and language constraints made this impossible in this case. Focus therefore has to be on the issues that did get raised – while keeping in mind that overall the results indicate that the farmers view interaction with scientists and extension workers first and foremost as a opportunity to acquire knowledge. Negatively charged comments from farmers generally stemmed from experiences of being “told what to do” or having people “just come and then leave” – quick visits and one way communication. Researchers, on the other hand, complained that issues beyond increased yields and profitability can be hard to involve farmers in because they lack the motivation. A lesson from this is that when using participatory approaches, be it in research or development projects; *a*) interaction between farmers and external actors should be continuous, action oriented, and enable mutual communication, and *b*) sensitization of the communities must be thorough (the more complex, abstract or long term the aim, the more thorough and time consuming the sensitization).

As for gender, the most important lesson is that “gender issues” cannot be isolated from the other issues in participatory agricultural development that have been explored in this thesis but must be taken into consideration at all stages of a project and in all components it includes. In fact the expression “gender issues” that has been used in various places in this thesis is misleading. Gender dimensions is a more appropriate term, and once again they are not synonymous with women's issues or inequality. The question is what the implementers of the Nnindy project and other practitioners can and should focus their energy on. One thing is that is important to have both genders represented among professionals involved in the project (be it implementers, facilitators, researchers or extension workers) to the extent it is possible. Another is to ensure that women's priorities and needs are being considered in decision-making. This may not necessarily require 50/50 representation in leadership, nor does that provide any guarantees – that will undoubtedly vary from case to case. Furthermore, in agricultural projects in Uganda and probably in many other areas, there also needs to be awareness of the phenomenon of gendered crops during the design and implementation of the project. Clearly, if a certain crop is the focus of the project, then this crop needs to match the objective and the target group, and farmers may also have preconceptions about who is fit to “teach” them. A final note on gender is based on a farmer interview where the respondent said that she did not have time to participate due to having many household responsibilities (possibly a gender related aspect in itself). After some probing it was clear her absence from the project was her husband's decision. I was reminded of the argument made by Cornwall (2003) – a participatory process can only be as gender sensitive as the facilitators. This may mean allowing gender dimensions to require some effort to identify, and acknowledging that the gender of the researcher, extension worker or facilitator matters – which, incidentally, applies to this very study too. Quite possibly there were some things that were missed due to the fact that interviewer and interpreter were female.

The practical aspects of implementing projects in areas like Nnindy were perhaps not unexpected but seemingly absent from in the literature; none of the Ugandan studies in table 2 give them any attention aside from the matter of financial compensation. Practical problems may be less complex than the issues discussed above but not necessarily less important to address. What information channels are suitable for the conditions of the area depend on both available

infrastructure and social structure, and project implementers may need to be creative. If the knowledge of elderly community members is to be harnessed, they need to be able to participate despite physical limitations. Finally, on the issue of farmer compensation all the findings of this study suggest that not paying participants directly (as is done in the Nnindye project) is what is advisable. Perhaps most importantly it needs to be clear from the beginning, and if possible, different organizations active in the same area should agree on what approach to use.

6.2 Practical advice to participatory practitioners in agriculture

The following practical advice is based on the findings of this case study and could prove useful to other practitioners.

- Monitoring must not be neglected. Left unaddressed, even issues that may be easily solved can threaten the whole project, and participants value when implementers show an interest in how the project progresses and give them an opportunity to share their opinions. Be careful with whose opinions are sought, as some groups may be unaware of problems or even be part of them.
- Pay attention not only to what the participants feel they get out of the project but also what they feel their own role is. This can influence what the impact the project has on the participants, beyond tangible benefits.
- Keep a gender-aware eye on the project, from participation and representation to the topics and activities that the project involves. As it seems agricultural projects at least in this area tend to attract many women, having female “outsiders” involved can be worth aiming for.
- Participatory approaches evolved as an alternative to top-down approaches, and this should guide the design of project as well as the attitudes and behavior of practitioners at an individual level. Farmers are generally interested in learning from other stakeholders, but not necessarily in being lectured.
- Avoid dissatisfaction and conflicts over financial issues through making sure that all stakeholders understand what money will be used for, and maintain transparency throughout the whole project, and if there is no direct payment for participants (as is advisable) then this must be clear from the beginning.

6.3 Recommendations for further research

This thesis is a broad case study exploring a wide variety of issues important to consider in the implementation of participatory projects in agricultural development (and in many cases in agricultural research as well). Being so broad, the study is able to identify many aspects that would be interesting and useful to look into in greater detail. In her discussion on the gap between theory and practice in stakeholder collaboration projects, Westberg (2003) writes that those who

do research on stakeholder interaction for sustainable food production rarely ask what actually happens when these theories are applied in real life. I believe this to be a problem also in participatory development projects. In general, more research is needed on the implementation of participatory projects in practice and perhaps particularly how to actually address common problems. This aspect is only briefly discussed in this thesis, and some general guidelines can be found in the literature, but actual accounts of how these issues have been dealt with in reality are very hard to come by despite the multitude of projects that clearly have been carried out around the world. This places implementers of individual, small scale efforts like the Nnindy project in a difficult position. There is also a need for more knowledge on how participation can successfully be achieved and sustained in projects where the benefits for the residents must be seen in a long term perspective (such as natural resource management) rather than immediately through gaining access to resources.

Regarding the issues that have been given particular attention in this thesis, there are many gaps to be filled. In the Nnindy project, little attention has so far been paid to some issues that are otherwise very prominent in the development literature – monitoring for one, and also gender. This poses the question of the extent to which trends in the development discussion actually translates into practice, especially in projects not linked to the big development agencies. It would also be of great value to explore what hinders more interaction and exchange of knowledge from occurring between farmers and other agricultural professionals – at least judging by the results of this study, it isn't a lack of interest that is standing in the way.

7 Conclusions

This case study found that among the respondents who were part of the Nnindye project, the *ways of participating* and therefore the impact it was having on them varied between labor being indirectly exchanged for materials and food, to acquiring knowledge and skills, to part-taking in decision-making. Regardless of how a person participates it can be seen as meaningful by the participant, but this thesis argues that a more resilient process and more long term and deep-reaching impact can be achieved when there are tangible benefits in combination with incentives that are not solely material. This, for example, can mean making sure that all participants can and want to attend trainings, meetings and other collective activities.

An *important issue to address* is the perception that not all project members are benefiting equally due to poor leadership in the group. In some groups, members feel that the leaders are abandoning the project, which can be equally damaging. Facilitation is needed, and first of all there must be a monitoring system set up to catch such issues – this doesn't take away the ownership of the process from the participants. Implementers also need to be clear on how or if participants can be compensated for their time and why that is, and furthermore be open with the participants regarding the project budget and how it is used.

Limitations aside, the study suggests that most respondents much *appreciate the opportunities to interact* with extension workers, researchers as well as the implementers that the project provides. The behavior and attitude of an “outsider” is important – imposing ill-suited recommendations upon farmers is damaging to this relationship. Matters with less direct cause and effect and endeavors with less tangible benefit may require more time and effort to build up engagement for among farmers.

Gender dimensions may often figure in the discussion of participatory processes and development literature in general, but in this project they are left relatively untouched. Still, the study found that they come into play in many ways; whether or not a farmer participates, how they interact with outsiders, and who can be expected to benefit from the project design and activities. A project doesn't have to explicitly aim to address these issues, but awareness among the implementers is important.

Practical constraints often emerged as *reasons not to participate*; such as health problems, lack of time, and missing out on the information (these can also influence the extent to which members are able to be active). Friction between non-participants and participants was also an important barrier, as the groups felt that it was unfair for people to join now that the work is starting to pay off. There are many possible solutions to this problem but it may require assistance from the implementers, and this finding shows that a project can benefit from a monitoring process that at least initially includes non-participants.

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Appendix – Interview guide

The following interview guide was the final version that was used for the majority of the farmer interviews. Note that some questions could ultimately not be fitted into the analysis in this thesis and some questions were analyzed jointly. Text in italics are examples and follow-up suggestions intended as guidance for the interviewer & translator.

Interview guide – Farmers

Gender:	Age:	Marital status:	Village:
Education:		Household size:	
Farm size:		Crops:	
Land ownership:		Livestock:	
Position in village/parish (if applicable): <i>(such as in local politics, organizations, church..)</i>			

1. Where have you learned your farming knowledge and skills *(If necessary, provide examples, several possible: Family (parents etc.) – Other farmers – School – Own experience – Advisory services – Suppliers – Books etc*

2. Have you used advisory services?

3. What are some of the most important challenges or problems you face as a farmer?

4. What activities have you been involved in as part of this project?

5. Have you had any special responsibilities in the project? *(F.x. Leadership..)*

6. Do you feel that you benefit from this project? *(In what ways?)*

7. What do you feel you are learning from it?

8. What do you feel you can contribute with to the project, yourself?
(Could be things like knowledge on specific topics, practical skills, leadership in the group, etc.)
9. How do you feel about sharing your opinions and suggestions about the project with the scientists or extension officers? *(Have you done that at any point?)*
10. Do you feel that researchers & extension staff are knowledgeable about good methods for this area? *(What makes you feel that?)*
11. Do you feel you have influence on what happens in the project? *(Topics, activities etc. In what ways?)*
12. Has this project changed the way you feel about scientists and extension staff? *(If so, how?)*
13. Would you want closer contact with researchers and extension staff than today? *(Why/why not?)*
14. When a scientist or extension worker comes here, does it make any difference to you if it is a man or a woman? *(Why?)*
15. Is it important that you are paid for the time you spend on project activities? *(Under what circumstances?)*