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The Role of Ugandan Women in Rural Agriculture and Food Security

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THE ROLE OF UGANDAN WOMEN IN RURAL AGRICULTURE AND FOOD
SECURITY

A Thesis

Presented to

The Faculty of the Josef Korbel School of International Studies

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In Partial Fulfillment

of the Requirements for the Degree

Master of Arts

by

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Title: THE ROLE OF UGANDAN WOMEN IN RURAL AGRICULTURE AND FOOD SECURITY

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ABSTRACT

Women engaged in small-scale rural agriculture in Iganga, Uganda for the purpose of household food security and/or income generation face a number of challenges to creating sustainable livelihoods. This analysis is presented in the form of a case study based on research conducted over the period of one year in Uganda between September 2012 and September 2013. Three conceptual orientations are used to guide the research, including sustainable livelihoods, gender and agricultural development, and food security. Pertinent economic, political, and social contexts are identified for each of these orientations. The author then identifies key challenges that women in Iganga face in small-scale agricultural production. Each of these challenges is analyzed in the economic, political, and social context of Uganda. The author concludes this work with programmatic recommendations based on challenges identified and presents a way forward for organizations working with women engaged in small-scale rural agriculture in Iganga.

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CHAPTER ONE: INTRODUCTION

There are 925 million undernourished people in the world today according to the Food and Agriculture Organization of the United Nations¹. While many factors influence worldwide food security levels, the gender gap in agricultural production remains one of the most pressing issues. As FAO Director-General Jacques Diouf states,

women make crucial contributions in agriculture and rural enterprises in all developing country regions, as farmers, workers, and entrepreneurs. Their roles vary across regions but, everywhere, women face gender-specific constraints that reduce their productivity and limit their contributions to agricultural production, economic growth, and the well-being of their families, communities, and countries².

Uganda is no exception to this statement. The East African country is home to nearly half the arable land in all of East Africa, yet 19.5 percent of the nation's population is considered food insecure³. A great deal of the food insecurity in Uganda can be traced to the challenges women face engaging in small-scale rural agriculture. Women are responsible for an estimated 90 percent of Uganda's total food output, but they lack the resources and support necessary to effectively produce crops on a sustainable scale, whether for home consumption or for marketing and income generation⁴.

¹ Found at: <http://www.fao.org/docrep/013/i2050e/i2050e.pdf>

² Ibid.

³ Found at: FeedtheFuture Uganda; <http://reliefweb.int/report/uganda/uganda-acute-food-insecurity-situation-overview-jun-sep-2013>

⁴ Ibid.

Problem Statement

Women in rural eastern Uganda have very limited opportunities for income generation. The majority of women in eastern Uganda are engaged in subsistence agriculture (often as part of a combined livelihoods strategy), meaning they farm specifically for household use and do not generate income from their crops. Women do the vast majority of agricultural work in the country, yet men are the ones who reap the economic benefits. Small-scale rural farming is a challenging occupation for men and women alike; however, women face more constraints to income generation through agriculture than men. Without a source of income generation, women are often unable to meet cash needs for themselves and their families, including medical expenses, household items, and school fees. Additionally, small-scale agriculture may not even provide enough food to ensure household food security, let alone income. This analysis is designed to critically evaluate some of the most pressing challenges rural Ugandan women face in creating sustainable livelihoods for themselves and their families through small-scale agricultural production.

Research Questions

The research presented here centers on two questions. First, are women in rural eastern Uganda engaging in small-scale agriculture at a level that allows sufficient household food security or income generation to create sustainable livelihoods for themselves and their families? Second, if women are not creating sustainable livelihoods through agricultural production, what are the most salient factors influencing this lack of success? The following analysis demonstrates that women in rural eastern Uganda are in

fact *not* engaging in small-scale agriculture at a level that allows sufficient food security or income generation to create sustainable livelihoods for themselves and their families. Prominent challenges include lack of access to capital, lack of access to improved agricultural inputs, lack of access to land, lack of access to markets, lack of access to human capital (including health and education), social norms and roles for women, and environmental factors. This analysis will explore each of these factors within the current economic, political, and social context in Uganda.

Objective of Study

The broad objective of this study is to identify constraints women face in generating income through small-scale rural agriculture in order to suggest potential solutions. In-depth analysis will show which factors have the most influence over women's agricultural production. The concluding chapter will offer programmatic recommendations based on these findings.

Methodology and Outline of the Study

This research project was made up of four primary research methods. Using a wide variety of research tools allowed the researcher to cross-check and substantiate or invalidate findings with a stronger degree of certainty. The four methods included participant observation, surveys, semi-structured key informant interviews, and focus groups. The research was organized into six phases. In the first phase, the researcher focused on participant observation, primarily of women in the BeadforLife program. The researcher became familiar with women's daily household and agricultural activities. Examples include preparing meals, caring for children, and working in nearby gardens. Surveys were introduced in Phase 2. Over the course of the year, the researcher and her

colleagues designed and implemented three major surveys in December 2012, March 2013, and July 2013 respectively. Each survey focused on aspects of agricultural production in Iganga, from which crops women planted to how many acres they rented to how and where they sold portions of their harvest.

The researcher introduced semi-structured key informant interviews in the third phase of research and continued conducting interviews until the close of the project. In total, the researcher conducted 25 semi-structured key informant interviews. Five of these interviews involved a group of two or more people. The researcher attempted to cover a broad spectrum of the population with knowledge about agricultural production in these interviews. Interviewees included academic experts at Makerere University, NGO staff in Iganga, agricultural specialists at the UN and USAID, g-nut and maize sellers in the local market, and many more. The researcher organized and conducted four focus groups in the fourth phase of research. Eight female farmers, who are also members of the BeadforLife program, participated in the first focus group. Eight male farmers from the same sub-county as the female farmers participated in the second focus group. The third and fourth focus groups were conducted at meetings for farmer groups who had gathered as part of a village savings and loan program. The original research plan set out a fifth research phase for wrapping up loose ends. The added time was helpful for conducting additional interviews with people who had busy schedules, etc. The sixth and final phase of research focused on gathering research from secondary sources and compiling and analyzing field research findings.

Ethical Considerations

Consideration of ethical principles is an essential piece of any research design, particularly those involving human participants. The researcher designed a protocol based on standards set by the Institutional Review Board and conducted research accordingly. This section will provide a succinct overview of key components addressed in the research protocol and during the project.

The protocol addresses general ethical considerations for research and more specific considerations for conducting research internationally in a developing country. The protocol identifies potential risks to the participants and outlines measures taken to mitigate these risks. For example, while the subject matter in this study presented minimal risk to participants, respondents did risk the potential that their peers or husbands would misunderstand or misinterpret the purpose of their involvement in the research process. In extreme cases, this could have led to issues of domestic violence. However, the researcher and her colleagues took care to inform participant's husbands and local leaders of the women's involvement in activities for BeadforLife and this research project.

After informing members of the broader community about the research project, the researcher thoroughly explained the purpose of the research prior to conducting individual or group research and obtained informed consent from each participant. Due to high levels of illiteracy among the research population, the researcher obtained a waiver of documentation of informed consent and instead relied on oral consent from most participants. Written consent forms were used when appropriate, such as for key informant interviews with subject matter experts.

Part of the informed consent process involved setting realistic expectations for research participants. While the ultimate goal of this research project is to benefit program and community members through individual, programmatic, or community level changes implemented based on research gained through this research process; certain financial, cultural, and logistical constraints will prevent many of the changes from being implemented. The researcher therefore tried to be clear about the scope of this research project and intended outcomes while mitigating unrealistic hopes.

CHAPTER TWO: CONCEPTUAL ORIENTATION

This chapter will focus on conceptual orientations used to analyze key factors that influence women's ability to create sustainable livelihoods and generate income through small-scale rural agriculture. Three key concepts are defined in this section – sustainable livelihoods, gender and development, and food security. These three concepts provide a framework for analyzing some of the economic, political, social, and aid-related factors that influence the achievements and challenges of women engaged in small-scale rural agriculture. The section will then provide a general overview of some of these factors that are widespread across developing countries worldwide, while the next chapter will delve into more specific information focused on Uganda. The end of this chapter identifies the plausibility probe case study method approach used to conduct research for this paper.

Definition of Key Concepts

Sustainable Livelihoods

The definition of sustainable livelihoods has been widely debated among development scholars. According to Jonathan M. Harris, most definitions contain three essential aspects: economic, environmental, and social development⁵. Some definitions focus more on economic factors (Daly 1996⁶), while others focus on environmental

⁵ Harris, J. "Sustainability and Sustainable Development", International Society for Ecological Economics, Feb 2003, 1.

⁶ Daly, H. "Beyond Growth: The Economics of Sustainable Development", Beacon Press, 1996.

perspectives (Walker, Holling, and Carpenter 2004⁷), and still others focus on social aspects of sustainability (Anand and Sen 2000⁸). Sustainable livelihoods definitions typically fall under the broader definition of sustainable development. The World Commission on Environment and Development defines sustainable development as “development which meets the needs of the present without compromising the ability of future generations to meet their own needs”⁹.

Sustainable livelihoods definitions are generally more detailed and focus on measurability. For example, the Department for International Development (DFID) has compiled an extensive livelihoods framework composed of five core asset categories (human capital, social capital, natural capital, physical capital, and financial capital) to be used in livelihoods analyses. These five categories are widely recognized as being essential pieces of sustainable livelihoods theory¹⁰. DFID uses these five asset categories in the context of a larger framework to assess the potential for desired livelihood outcomes, which include “more income, increased well-being, reduced vulnerability, improved food security, and more sustainable use of the natural resource base”¹¹. Ian Scoones highlights recovery from shocks in his definition of sustainable livelihoods:

⁷ Walker, B., C.S. Holling, and S.R. Carpenter. “Resilience, Adapdability, and Transformability in Social-Ecological Systems”, *Ecology and Society*, 2004.

⁸ Anand, S and A. Sen. “Human Development and Economic Sustainability”, *World Development*, Volume 28, Number 12, 2000.

⁹ Ibid.

¹⁰ McLeod, R. “The impact of regulations and procedures on the livelihoods asset base of the urban poor: a financial perspective”. International Workshop on Regulatory Guidelines for Urban Upgrading, May 2001.

¹¹ Sustainable Livelihoods Guidance Sheets, Department for International Development (DFID), April 1999, 2.1.

A livelihood comprises the capabilities, assets (including both material and social resources) and activities required for a means of living. A livelihood is sustainable when it can cope with and recover from stresses and shocks, maintain or enhance its capabilities and assets, while not undermining the natural resource base¹².

This definition encompasses important economic, social, and environmental factors in addition to bringing up the need for livelihoods to “cope with and recover from shocks and stresses”. This aspect of the definition is particularly important in the context of small-scale rural agriculture due to the uncertain nature of agriculture as a livelihood strategy. Small producers need to be resilient to shocks and stresses such as unpredictable weather patterns and diseases, particularly in light of recent global climate change.

Gender and Agricultural Development

The second key concept for this research is gender and development. Before delving into the definition of gender and development, a brief working definition of the term gender is needed. According to the World Health Organization (WHO), gender “refers to the socially constructed roles, behaviors, activities, and attributes that a given society considers appropriate for men and women”, while sex refers to “the biological and physical characteristics that define men and women”¹³. Although this analysis will focus primarily on women and typically female gender roles, it is important to keep in mind that gender roles are mutable and involve both men and women. As Elizabeth King states, “all cultures interpret and translate men’s and women’s biological differences into expectations about what behaviors and activities are appropriate for them and what rights,

¹² Scoones, I. “Sustainable Rural Livelihoods: A Framework for Analysis”, Working Paper 72, Institute of Development Studies 1998.

¹³ “Gender, Women, and Health”, World Health Organization, 2013. www.who.int/gender

resources, and power they possess”¹⁴. Some of the major issues associated with women in agriculture are due to shifting gender roles. For example, men are usually in charge of marketing export crops in Sub-Saharan Africa. Women must cross gender barriers in order to start marketing produce themselves, which is almost certain to cause problems by challenging dominant social and cultural concepts. The term gender and agricultural development refers to both male and female roles in agricultural development.

Differing gender roles for men and women in agriculture play a significant role in the world’s food security and income generation for sustainable livelihoods. The Food and Agriculture Organization (FAO) published a report in 2011 stating, “closing the gender gap in agriculture would produce significant gains for society by increasing agricultural productivity, reducing poverty and hunger, and increasing economic growth”¹⁵. DFID recently partnered with the United States Agency for International Development (USAID), the Oxford Poverty and Human Development Initiative (OPHI), and the International Food Policy Research Institute (IFPRI) to create a “Women’s Empowerment in Agriculture Index”. The purpose of this index is to measure levels of inclusion among women in the agriculture sector. According to DFID, “women play a critical role in agricultural growth in developing countries yet face persistent obstacles and economic constraints, limiting further inclusion in this sector”¹⁶. Indeed, while

¹⁴ King, E., S. Klasen, and M. Porter. “Copenhagen Consensus 2008 Challenge Paper: Women and Development”, Copenhagen Consensus Center, 2008.

¹⁵ “The State of Food and Agriculture: Women in Agriculture, Closing the Gender Gap for Development”, Food and Agriculture Organization of the United Nations, Rome, 2011, 39.

¹⁶ “DFID Research: Women’s Empowerment in Agriculture Index Launched”, Department for International Development, March 2012.

women are technically “included” in the agricultural sector in many developing countries, this inclusion is characterized by unequal power relations and limited control of resources.

Scholarly research indicates that women face significant challenges using rural agriculture to create sustainable livelihoods or generate income. Christine Okali neatly summarizes current framing and narratives associated with women in agriculture in an expert paper prepared for UN Women. Key elements of this narrative include the ideas that:

- Women undertake the majority of agricultural work in addition to domestic or reproductive work and have limited control over their own labor.
- Women are altruistic, putting their children and household food security first, engaging in food crop production for subsistence using unimproved technology.
- Women’s work burdens have increased following the out-migration of men seeking other income earning opportunities, and as access to water and fuel has deteriorated with environmental change.
- Women lack secure access to land and are unable to provide the collateral that would secure access to credit for their independent agricultural activities. They are also ignored by some service providers.
- Women have limited control over the outputs from their labor and therefore lack incentives to increase their production¹⁷.

While these statements broadly generalize women’s place in rural agriculture, they capture the current thinking in much of the field of women in agriculture and subsequently influence policy, development practice, and research.

Michael Kevane points to other challenges for women in agriculture, citing “the possible inefficiencies (...) in the interaction between economic factors and gender roles

¹⁷ Okali, C. “Achieving Transformative Change for Rural Women’s Empowerment”, Expert Paper, UN Women; Enabling Rural Women’s Economic Empowerment: Institutions, Opportunities, and Participation, Accra, Ghana, Sept. 2011.

as constraints to improvements in productivity and well-being in Sub-Saharan Africa”¹⁸. In short, women are constrained by gender roles that don’t allow them to participate in income-generating activities, including agriculture. Quisumbing and Pandolfelli identify women’s domestic responsibilities as one of the key constraints to participation in “more productive (or remunerative)” activities¹⁹. Other scholars focus on lack of access to land (Goldstein 2005²⁰), poor health and nutrition (King, Klasen, and Porter 2007²¹), lack of decision-making power in the household (Udry 1996²²), inability to access financial services (Kabeer 2005²³), failure to access or utilize new technology (Paris 2001²⁴), and difficulties in accessing markets (Barham and Chitemi 2008²⁵) as key difficulties for women involved in agriculture.

Food Security

The third key concept for this research is food security. The term food security first emerged in the 1970’s. At the time, food security referred to global food supply and

¹⁸ Kevane, M. “Women and Development in Africa: How Gender Works”, Boulder, CO, 2004.

¹⁹ Quisumbing, A and Pandolfelli, L. “Promising Approaches to the Needs of Poor Female Farmers: Resources, Constraints, and Interventions”, *World Development*, Volume 38, Issue 4. April 2010.

²⁰ Goldstein, M. and C. Udry. “The Profits of Power: Land Rights and Agricultural Investment in Ghana”, Working Paper 929, Economic Growth Center, Yale University, 2005.

²¹ King, E., S. Klasen, and M. Porter. “Copenhagen Consensus Challenge Paper: Women and Development”. Copenhagen Consensus Center, Copenhagen, 2007.

²² Udry, C. “Gender, Agricultural Production, and the Theory of the Household”, *Journal of Political Economy*, 1996.

²³ Kabeer, N. “Gender Equality and Women’s Empowerment: A Critical Analysis of the Third Millennium Development Goal”, *Gender, Equality, and Women’s Empowerment*, 2005.

²⁴ Paris, T., H.S. Feldstein, and G. Duron. “Technology in Empowering Women to Achieve Food Security”, Policy Brief Number 5, IFPRI, 2001.

²⁵ Barham, J. and C. Chitemi, “Collective Action Initiatives to Improve Marketing Performance: Lessons from Farmer Groups in Tanzania”, IFPRI, 2008.

availability of food. It soon became clear that the term food security needed to encompass more than just food availability. In 1981, Amartya Sen identified the importance of food access as a key component of food security²⁶. The definition of food security further developed to not only address food security at a national level, but at household and individual levels as well. Today, one of the most commonly used definitions of food security comes from the 1996 World Food Summit, where the WHO defined food security as existing “when all people at all times have access to sufficient, safe, and nutritious food to maintain a healthy and active life”²⁷. Food security is built on the following three pillars, according to the WHO:

1. Food availability: sufficient quantities of food available on a consistent basis.
2. Food access: having sufficient resources to obtain appropriate foods for a nutritious diet.
3. Food use: appropriate use based on knowledge of basic nutrition and care, as well as adequate water and sanitation²⁸.

Food security has decreased globally over the last decade due to rising global food prices and the:

persistence and interaction of ‘multiple stressors’, including sudden shocks (eg. floods, droughts, unemployment, death, and price increases) and gradual changes (eg. changes in service delivery, land degradation, social and economic marginalization, erosion of assets as a result of the AIDS epidemic, and the changing nature of the world food situation)²⁹.

²⁶ Sen, A. “Poverty and Famines: An Essay on Entitlement and Deprivation” Oxford University Press, 1981.

²⁷ “Trade, Foreign Policy, Diplomacy, and Health” WHO, 2013. www.who.int/trade

²⁸ Ibid.

²⁹ Drimie, S. and M. Casale. “Multiple stressors in Southern Africa: The link between HIV/AIDS, food insecurity, poverty children’s vulnerability now and in the future”, *Aids Care*, S1, 2009.

The development community is interested in identifying populations who are vulnerable to food insecurity. However, definitions and indicators associated with food security vary widely, making it difficult to determine which populations and social groups within particular societies are either food insecure already or at a high risk of becoming food insecure in the future³⁰.

Scholars argue over the root causes of food security, making it difficult to determine the right course of action to solve food insecurity. Some, like Devereaux, argue that “prevailing structural conditions are actually more responsible for the persistence of famines or food security crises in sub-Saharan Africa this century than the actual shocks that trigger them”³¹. Others focus on vulnerability within households and the ability of individual households to cope with environmental, social, economic, and political change³². Another key component of the food security definition is the phrase “at all times”, indicating that households and individuals should be able to cope with seasonal stresses and irregular shocks in a way that continues to ensure food security³³.

Food security can be measured at a global, national, community, household, or individual level³⁴. This analysis will focus primarily on food security at the household and individual levels. Household food security does not always ensure individual food

³⁰ Hoddinot, J. “Operationalizing Household Food Insecurity in Development Projects: An Introduction”, Training Materials: Food Security, IFPRI, 1999.

³¹ Devereaux, S. “Why does famine persist in Africa?” Food Security, 2009.

³² Bohle, H. “Vulnerability and Criticality: Perspectives from Social Geography”, Bonn: International Human Dimensions Program on Global Environmental Change”, 2001.

³³ Jones, A., F. Ngunjiri, and G. Pelto. “What Are We Assessing When We Measure Food Security? A Compendium and Review of Current Metrics”, Advanced Nutrition, Volume 4, 2013.

³⁴ Pinstrup-Anderson, P. “Food Security: Definition and Measurement”, Food Security, 2009.

security. Distribution of food within a household may not be based on individual needs. For example, women and children may receive less food, or less nutritionally valuable food, than a male head of household due to persistent intra-household inequality across different cultures and societies. Overall, the term food security in this analysis will refer to sufficient food availability, access, and use over time.

Key Factors

Each of the preceding three concepts (sustainable livelihoods, gender and development, and food security) provide an overarching framework for thinking about the specific economic, political, social, and aid-related factors that influence women in small-scale agriculture. This section will outline each of these factors in a global context, focusing on the influences they have on women engaged in small-scale rural agriculture in developing countries throughout the world.

Economic Factors

Access to financial services in rural areas can play a critical role in creating and maintaining sustainable livelihoods. According to the World Bank, services including small loans, savings, micro-insurance, and mobile money can help the rural poor “build assets, engage more effectively with markets, and reduce their vulnerability to crises, especially when access to services is planned as part of household livelihood strategies and sustained over time”³⁵. The FAO emphasizes the importance of credit and other financial services as a means to increase “productivity, income, and well-being”³⁶.

³⁵ “Gender in Agriculture Sourcebook”, The World Bank, 2009, 85. www.siteresources.worldbank.org

³⁶ “The State of Food and Agriculture: Women in Agriculture, Closing the Gender Gap for Development”, Food and Agriculture Organization of the United Nations, Rome, 2011, 34.

Women engaged in rural agriculture often lack access to these financial services, which can negatively impact their ability to create sustainable livelihoods and generate income. While men also face constraints to accessing financial services, cultural norms, legal barriers, and economic constraints often limit women's access to financial services even further³⁷. Without access to credit and other financial services, it can be difficult for women to rent land or purchase agricultural inputs like improved seeds and fertilizers, thus limiting the potential for growth.

According to the World Bank, removing the barriers for women interested in accessing financial services could have significant positive impacts on development. First, research on microfinance programs has typically concluded that women are more reliable clients than men. They are more likely to repay loans, save more money, and form stronger groups, which helps increase efficiency in service delivery. Second, women are more likely than men to make investments in areas like health and education, which benefit the entire household. According to the World Bank, "when women earn an income, they reinvest 90 percent of it in their families, while men reinvest approximately 30-40 percent³⁸". Third, access to financial services often results not only in economic empowerment, but in social and political empowerment as well. Women who become well connected through their small businesses often have more community and political

³⁷ Ibid.

³⁸ "Gender Equality as Smart Economics: A World Bank Group Gender Action Plan", World Bank. Sept, 2006.

involvement. Further, women who earn incomes may have more decision-making power within the household³⁹.

While increasing women's access to financial services would certainly improve the likelihood that women will successfully earn incomes or create sustainable livelihoods through agriculture, increasing access to financial services is not sufficient in and of itself to meet this goal. The literature tends to focus on lack of credit as *the* major economic constraint for rural women. If only women could access more credit, they could increase their economic well-being, earn a higher status in the household, and increase their social capital. In reality, a host of other factors, both economic and non-economic, influence these outcomes⁴⁰. For example, without access to proper savings facilities, income from agriculture or other businesses may not be utilized effectively. There are even cases where women are more susceptible to domestic violence due to a shift in power dynamics within the household once they begin earning an income⁴¹. Ultimately, while economic empowerment through access to financial services plays a critical role in increasing women's ability to create sustainable livelihoods and earn income, a variety of other factors must also be taken into account.

Political Factors

Another key component for women's success or failure in small-scale rural agriculture is the political environment they are operating in. Quality of governance is an

³⁹ "Gender in Agriculture Sourcebook", The World Bank, 2009, 88. www.siteresources.worldbank.org

⁴⁰ Quisumbing, A and Pandolfelli, L. "Promising Approaches to the Needs of Poor Female Farmers: Resources, Constraints, and Interventions", *World Development*, Volume 38, Issue 4. April 2010. 586.

⁴¹ Kabeer, N. "Is Microfinance a 'Magic Bullet' for Women's Empowerment?", *Economic and Political Weekly*, Oct. 2005, 4709.

important factor in agricultural development throughout the world. As Kofi Annan once stated, “Good governance is perhaps the single most important factor in eradicating poverty and promoting development⁴²”. The term “good governance” encompasses “participation, accountability, transparency, consensus, sustainability, and rule of law, while highlighting the inclusion of the poor and vulnerable in the allocation of resources”⁴³. The term good governance as it is used in the international development community can connote certain western institutions that are not always appropriate for developing economies. In fact, promoting good governance by prioritizing big financial capital instead of small capital (including small-scale farmers) can actually harm the poor and vulnerable. Good governance as it is used in this paper, then, should be taken to indicate the importance of participation among *all* members of the population, particularly those who have historically been disadvantaged and overlooked, including small-scale female farmers. Good governance in this sense can influence agriculture at a structural level by supporting agricultural reforms through decentralization and community-driven development, and at a policy level by improving policies related to agricultural development.

Decentralization and community-driven development have become important themes for agriculture in the 20th century. As Regina Birner states, “experience has shown that policies that support small farmers by correcting for the market failures inherent in the different phases of agricultural development can be a particularly

⁴² “Gender in Agriculture Sourcebook”, The World Bank, 2009, 23. www.siteresources.worldbank.org

⁴³ Ibid.

successful strategy to achieve pro-poor growth”⁴⁴. Decentralization can give communities an opportunity to actively participate in their own socio-economic development by encouraging greater participation in the design and implementation of policies affecting the community’s livelihoods⁴⁵. More centralized policies that encourage investment in agricultural research, roads, and productivity-increasing technologies can help kick-start markets and increase agricultural growth at a national level⁴⁶. However, the political environment in many countries makes it difficult to create and implement policies to encourage agricultural growth generally, and even more difficult to encourage agricultural growth in a way that sufficiently addresses women’s involvement in the sector⁴⁷.

Gender must be taken into consideration when implementing reforms that will affect agricultural policies. Men and women often have specific needs associated with agricultural production, and policies should be designed to address these needs. One way to encourage gender-sensitive policies is to include more women in the political process. Women are significantly underrepresented in governments worldwide⁴⁸. Social and economic inequalities make it difficult for women to participate in political processes in many countries. An emphasis on decentralization could play a positive role for women who are interested in getting involved in agricultural policy-making. Although there are

⁴⁴ Birner, R., D. Resnick. “Policy and Politics for Smallholder Agriculture”, IFPRI, 306.

⁴⁵ “Gender in Agriculture Sourcebook”, The World Bank, 2009, 52. www.siteresources.worldbank.org

⁴⁶ Dorward, A., J. Kydd, and J. Morrison. “A Policy Agenda for Pro-Poor Agricultural Growth”, DFID, March 2002, 24.

⁴⁷ Birner, R., D. Resnick. “Policy and Politics for Smallholder Agriculture”, IFPRI, 306.

⁴⁸ “Gender in Agriculture Sourcebook”, The World Bank, 2009, 36. www.siteresources.worldbank.org

still many obstacles, it is easier for women to get involved in government policies and projects on a local level than it is on a national level⁴⁹.

Social Factors

Some of the most significant social factors affecting women's ability to productively engage in small-scale rural agriculture include low levels of human capital (particularly health and education), gender norms that prohibit or constrain access to agro-inputs, land, and markets, and time constraints due to household obligations. Human capital can be defined as:

a concept which identifies human characteristics which can be acquired and which increase income. It is commonly taken to include peoples' knowledge and skills, acquired partly through education, but can also include their strength and vitality, which are dependent on health and nutrition⁵⁰.

The development of human capital is widely seen as essential to the creation of sustainable livelihoods, particularly through economic production. Health and education are viewed as critical pieces of human capital in this analysis.

Worldwide, women and girls have lower levels of education than men and boys. It is estimated that three-fifths of the world's 137 million illiterate youth are girls⁵¹. Sub-Saharan Africa, the Middle East and South Asia have the lowest female-to-male literacy ratios worldwide⁵². Increasing girl's enrollment in schools has been shown to have

⁴⁹ Ibid, 54.

⁵⁰ Appleton, S. and F. Teal. "Human Capital and Economic Development", African Development Report, 1998.

⁵¹ "Key Messages and Data on Girl's and Women's Education and Literacy", UNESCO, April 2012. unesco.org

⁵² Ibid.

positive effects including increased wages later in life, better nutrition for children, and lower rates of HIV infection⁵³. Each of these effects indirectly influences agricultural production – for example, lower rates of HIV infection mean women are healthier and better able to engage in farm labor.

The cost of not educating women and girls is significant in terms of agricultural development as well. For example, women who haven't gone to school long enough to become numerate may have difficulty keeping track of agro-input expenses like renting land and purchasing seeds. Ultimately, they may end up spending more on inputs than they earn from outputs due to innumeracy. Illiteracy poses additional problems. For example, women may not be able to read instructions on fertilizers, which is not only detrimental to crop production, but could be harmful to their health. At a broader level, illiterate women are unable to participate in policy-making decisions that will affect agricultural production and livelihoods. The needs and views of rural, illiterate women are often underrepresented in government as a result of inadequate education.

Another significant social factor affecting women in agriculture is health, particularly in regard to child-bearing. Fertility rates are high in most developing countries, particularly in Sub-Saharan Africa, where fertility rates exceed 5 children per woman⁵⁴. Of the 529,000 women who die from pregnancy-related complications each year, 99 percent are from developing countries⁵⁵. One-third of all women in developing

⁵³ Herz, B. "What Works in Girls' Education: Evidence and Policies from the Developing World", Council on Foreign Relations, April 2004.

⁵⁴ Levine 2006

⁵⁵ "Reproductive Health Fact Sheet", United Nations Population Fund (UNFPA), 2010.

countries do not receive any healthcare during pregnancy⁵⁶. In addition to pregnancy-related health issues, women also suffer from higher rates of HIV infection (in Sub-Saharan Africa, the HIV prevalence rate among young women is more than four times higher than that of young men in the same age group), malnutrition, and anemia⁵⁷.

Despite the important impact of health on agricultural production, it is rarely identified as a major limitation in the field. As Jere Behrman states, “poor health and nutrition are important constraints to women’s agricultural productivity, yet the relevance of girls’ and women’s nutrition to women’s productive roles in agriculture is seldom recognized”⁵⁸. Women are expected to perform many different roles – from caregivers, to agricultural producers, to wives and mothers. Each of these roles takes a great deal of energy. If women don’t have access to proper nutrition and healthcare, they will struggle to meet the caloric and nutritional needs necessary to perform these tasks. Agricultural production, especially in the absence of labor-saving technologies like ox plows or tractors, takes a great deal of energy. Many women in developing countries also suffer from iron-deficiency anemia, which affects their ability to engage in physical labor, drastically impacting agricultural production⁵⁹.

Aside from low levels of human capital, women often face constraints to agricultural production due to gender roles. Typically, women in developing countries are

⁵⁶ Ibid.

⁵⁷ Temin, M. and R. Levine, “Start with a Girl: A New Agenda for Global Health”, Center for Global Development, October 2009.

⁵⁸ Behrman, J.R., H. Alderman, and J. Hoddinott, “Hunger and Malnutrition”, Copenhagen Consensus, February 2004.

⁵⁹ “Are We Making Progress on Reducing Anemia in Women?”, USAID, June 2011. www.usaid.org

expected to be in charge of childcare and household responsibilities like cooking and cleaning in addition to any livelihood activities they are involved in. Given high fertility rates, particularly in Sub-Saharan Africa, childcare and household responsibilities place severe time constraints on women looking to engage in agricultural production for income-generation, or even household food security⁶⁰. Women may also have to travel long distances to access water or firewood. These time burdens are continually increasing as water and fuel become scarcer due to climate change⁶¹. The more time women spend collecting water and firewood, the less time they have to engage in agricultural or other income-generating activities.

Women also face difficulties associated with expected gender roles for agricultural production and marketing. In general, women lack access to markets, meaning they may participate in crop production, but not benefit from income associated with these crops. As James Barham states,

In addition to typical production and market risks, such as theft and inadequate information about current market prices, female farmers face many gender-specific barriers to accessing markets. Modes of transportation may be culturally inappropriate for women. Market or health officials often harass women who market their wares just outside market boundaries owing to the high cost of permits. Time burdens constrain women from seeking the best prices for their output. And marital conflict may ensue if fluctuating prices incite husbands to suspect their wives are withholding money⁶².

⁶⁰ Quisumbing, A and Pandolfelli, L. "Promising Approaches to the Needs of Poor Female Farmers: Resources, Constraints, and Interventions", *World Development*, Volume 38, Issue 4. April 2010. 587.

⁶¹ "Climate Change and Gender", USAID, 2011.

⁶² Barham, J. and C. Chitemi. "Collective action initiatives to improve marketing performance: Lessons from farmer groups in Tanzania", IFPRI, 2008.

Without access to markets, women have little control over income use in the household. Women are generally expected to participate in agricultural production for the household, but once a crop becomes marketable, men are involved in the sale⁶³. Each of the preceding economic, political, and social factors are additionally influenced by the presence of international aid.

Aid Effectiveness

As with many other areas of development, international aid plays significant role in agricultural livelihoods across the world, particularly when it comes to controlling the sale of export cash crops, or even domestic cash crops. Various theories exist on the effectiveness of international aid as a development strategy. Beginning in the 1960's, scholars like Walt Rostow argued that foreign aid would act as a catalyst for developing countries to move into the "take-off" stage for economic development⁶⁴. Hollis Chenery and Alan Strout further developed this notion into an economic model known as the financing gap. The financing gap argues that "(a) aid will go into investment one for one, and (b), there will be a fixed linear relationship between growth and investment in the short run"⁶⁵. This model gained increasing popularity after a study published by David Dollar and Craig Burnside in 2000 suggested that foreign aid was directly correlated with economic growth in countries with "sound economic policies"⁶⁶. Despite heavy criticism from scholars and political observers in poor and rich countries alike, the financing gap

⁶³ "Gender in Agriculture Sourcebook", The World Bank, 2009, 36. www.siteresources.worldbank.org

⁶⁴ Rostow, W. "The Stages of Economic Growth: A Non-Communist Manifesto", Cambridge University Press, 1960.

⁶⁵ Easterly 1999: 3.

⁶⁶ Easterly 2003: 2.

model is still used extensively among international aid institutions, including the World Bank and the International Monetary Fund, to justify the provision of aid to spur economic growth in developing countries⁶⁷.

Scholars like William Easterly vehemently oppose the financing gap model, identifying “the lack of a clear theoretical model by which aid would influence growth”⁶⁸. Easterly has conducted numerous studies testing a link between foreign aid, investment, and growth as put forth by the financing gap model. Ultimately, he concludes that “there is no Next Big Idea that will make the small amount of foreign aid the catalyst for economic growth of the world’s poor nations”⁶⁹. Other exogenous factors including natural disasters and the nature of the international economic order can impact the use of foreign aid⁷⁰. Endogenous factors such as policy environment, political stability, population growth rates, and absorption capacity can additionally influence the use of foreign aid⁷¹.

The debate over aid effectiveness as it relates to agricultural development has drawn a lot of attention in recent years due to the world food crisis that hit developing countries in 2007 and 2008. Following the crisis, there was a call for more foreign aid directed at agriculture from the G10 and G20 countries based on two assumptions: “(1)

⁶⁷ Smith 2010: 53

⁶⁸ Easterly 2003

⁶⁹ Easterly 2003: 15

⁷⁰ Westerber, L. “Foreign Aid and Economic Growth in Ecuador: A Test of the Harrod-Domar Financing Gap Model”, *Economic Development*, 2009, 15.

⁷¹ Collier, P. and D. Dollar. “Development Effectiveness: What Have We Learnt?”, *Development Research Group, WB*, Jan. 2001.

the flow of aid to, as well as domestic public expenditures on, agriculture has been declining for the past two decades, and (2) the required amount of investment in agriculture (external and domestic) in developing countries must be greatly increased above the existing level”⁷². In reality, while some sub-sets of agricultural aid have declined (such as aid for the purchase, distribution, and marketing of agricultural inputs like fertilizer), others have increased (such as agricultural research and water development projects)⁷³.

Additional research indicates that development thinkers and the aid community have begun linking education, health, and nutrition with agricultural output and income. Therefore, while aid to health and education programs will not be counted as agricultural aid, the ultimate outcome may be increased agricultural productivity⁷⁴. As evidenced by the work of Easterly and others, however, one cannot automatically assume that increased amounts of aid will directly correlate with increased agricultural production and income. Like other types of economic development, agricultural development “depends on institutions and the capacity of human capital at the national and local level for designing and implementing programs and projects”⁷⁵. In the absence of good governance and a strong policy environment, aid to the agricultural sector may not only be ineffective at a local level, but could fuel corruption within the government.

⁷² Islam, N. “Foreign Aid to Agriculture: A Review of Facts and Analysis”, *IFPRI*, Jan. 2011, 1.

⁷³ *Ibid*, 19.

⁷⁴ *Ibid*, 22.

⁷⁵ *Ibid*, 25.

Despite inconclusive evidence on the effectiveness of agricultural aid, many international organizations continue to place emphasis on the importance of agricultural aid as a development strategy. USAID, for example, is currently funding a \$3.5 billion project called Feed the Future. Feed the Future is global hunger and food security initiative aimed at “reducing global poverty and hunger through accelerated growth in the agricultural sector”⁷⁶. The World Bank’s agricultural action plan for 2013-2015 emphasizes the need for “more and better investment in the sector”⁷⁷. DFID is attempting to help small farmers expand their production and sell their produce more widely by partnering with and encouraging other countries, businesses, and aid agencies to increase their investment in farming⁷⁸. Numerous other international agencies and donor governments including the IMF, FAO, UN, and GIZ are also emphasizing the need to invest in agriculture as a development strategy. Most of these agencies and governments have identified the need to incorporate gender into their strategic planning for funding agricultural development.

Multi and bi-lateral development agencies commonly seek to improve one, if not all, of the frameworks addressed at the beginning of this chapter – sustainable livelihoods, gender and agricultural development, and/or food security. These three concepts are key to improving the lives of small-scale female farmers throughout the world. First, the goal of creating sustainable agricultural livelihoods is to provide farmers

⁷⁶ feedthefuture.gov

⁷⁷ “Implementing Agriculture for Development: World Bank Group Agriculture Action Plan (2013-2015)”, World Bank, 2012. www.worldbank.org

⁷⁸ “Reducing Hunger and Malnutrition in Developing Countries” DFID, 2013. www.gov.uk

with the capabilities, assets, and activities required for a means of living, while ensuring their ability to recover from stresses and shocks⁷⁹. Second, the goal of incorporating gendered perspectives into agricultural development programs is to guarantee that women's specific needs are taken into account. Third, the goal of establishing food security involves ensuring availability, access and proper use of food over time.

International agricultural aid organizations, and other entities including governments, community organizations, and individual farmers themselves, must work within existing economic, political, and social contexts to achieve these overarching goals.

This chapter addressed major global economic, political, and social contexts that affect small-scale female farmers. Barriers to accessing financial services were identified. Without access to capital and other assets, women struggle to invest in the inputs necessary for agricultural production. Poor governance creates a negative environment for agricultural growth, particularly in cases where women's needs are not addressed. Centralized governance structures, and a lack of decentralization, can make it particularly difficult for female smallholder farmers to increase their participation in agricultural policy-making at the local level. Social factors including low levels of human capital among women and gendered expectations of household and community roles constrain women's ability to engage successfully in agricultural production.

The Plausibility Probe Case Study Approach

Having established the conceptual orientations and key factors for this project, this section will identify the case study method approach used in this paper. The

⁷⁹ Scoones, I. "Sustainable Rural Livelihoods: A Framework for Analysis", Working Paper 72, Institute of Development Studies 1998.

following research project was designed as a plausibility probe focusing primarily on a small group of women in Iganga, Uganda. As Jack Levy explains,

a plausibility probe is comparable to a pilot study in experimental or survey research. It allows the researcher to sharpen a hypothesis or theory, to refine the operationalization or measurement of key variables, or to explore the suitability of a particular case as a vehicle for testing a theory before engaging in a costly and time-consuming research effort, whether that involves a major quantitative data collection project, extensive fieldwork, a large survey, or detailed archival work⁸⁰.

This particular plausibility probe focused primarily on the latter aspect of Levy's definition. Although the researcher was able to spend a year conducting field research, and was therefore not particularly time constrained, the researcher did have limited resources. The researcher was fortunate to have funding from a fellowship program in order to conduct research; however, this budget was also allocated toward language study, living costs, and a variety of other expenses. This meant that the researcher had relatively limited access to research assistants, field transportation, translators, and interpreters. Given these constraints, the researcher sought to gather as much information as possible in the given timeframe of one year. After considering a variety of types of case studies, the plausibility probe provided the best framework for a research design in this particular instance.

As Levy's definition suggests, the purpose of conducting a plausibility probe is to "explore the suitability of a particular case as a vehicle for testing a theory"⁸¹. For this project, the researcher attempted to identify a case study that could be more broadly applicable to the field of women in rural agriculture in Uganda. Given the limited size of

⁸⁰ Levy, J. "Case Studies: Types, Designs, and Logics of Inference", *Conflict Management and Peace Science*, 25:1, 2008, 7.

⁸¹ Ibid.

the sample population studied, and other factors including regional and ethnic differences, it is difficult to make too many generalizations to the country as a whole, and perhaps more regionally in East Africa. However, certain aspects of the researcher's findings do resonate soundly with the literature on women in rural agriculture throughout Uganda and the East Africa region. The researcher will attempt to differentiate between conclusions that can be more broadly applied and those that are likely particular to eastern Uganda, and even the field research site, Iganga, in particular.

The researcher identified the town of Iganga, Uganda to conduct field research for several reasons. The researcher spent three months in Iganga in the summer of 2011 as an intern with BeadforLife. The organization had recently begun a rural agriculture program focused on engaging women in agriculture as a business. The researcher observed that while the majority of the women were already engaged in agricultural work, very few of them seemed to view agriculture as an economic activity. Rather, agricultural work was seen as necessary to the survival of the family. In discussing this topic with people throughout the country, similar stories emerged.

While Iganga has some distinct factors that differentiate the town from other regions in Uganda and East Africa more broadly, many important factors remain the same. For example, approximately 85 percent of the population in Iganga relies on subsistence agriculture as an important part of a combined livelihoods strategy⁸². This figure is equivalent to the 86 percent of the Ugandan population overall who are engaged

⁸² *United Nations Environmental Program*, 2009. Found at: http://www.unep.org/training/programmes/Instructor%20Version/Part_2/Activities/Dimensions_of_Human_Well-Being/Poverty/Strategies/Organic_agriculture_and_rural_livelihoods_rev2.pdf

in subsistence agriculture⁸³. The majority of land in Iganga district is used for small-scale subsistence farming (approximately 3,949 km²), whereas only 19.4² km is used for commercial farming purposes⁸⁴. The average person in Iganga farms on less than two acres of land. Farmers throughout Uganda operate on relatively similarly sized pieces of land, typically ranging from 1 to 5 acres⁸⁵.

Farmers in Iganga rely heavily on traditional farming methods. Traditional farming methods include using the hand hoe to clear land, scattering seeds for planting, and limited or no use of improved agro-inputs like fertilizers and pesticides. Improved technologies including ox plows, tractors, irrigation systems, improved seed varieties and other agro-inputs are slowly being introduced in the district, but levels of uptake are relatively low. This trend can be seen throughout Uganda as well, as farmers throughout the country continue to rely heavily on traditional farming methods⁸⁶. In addition to crop farming, most families in Iganga keep a small number of livestock, “ranging from 1-10 heads of cattle, 2-10 goats, 2-4 sheep, 1-5 pigs, and 10+ chickens”⁸⁷. The practice of keeping small numbers of livestock is widespread throughout Uganda as well. Livestock are often used as a method of savings.

⁸³ “Our Work in Uganda”, *Farm Africa*, 2012. Found at: <http://www.farmafrica.org/uganda/uganda>

⁸⁴ *United Nations Environmental Program*, 2009. Found at: http://www.unep.org/training/programmes/Instructor%20Version/Part_2/Activities/Dimensions_of_Human_Well-Being/Poverty/Strategies/Organic_agriculture_and_rural_livelihoods_rev2.pdf

⁸⁵ Ibid.

⁸⁶ Ibid.

⁸⁷ Ibid.

Although Iganga is similar to the rest of Uganda in many ways, the district does have some notable differences. The table below provides a brief overview of some key facts about Iganga district.

Table 1: Key Facts about Iganga

Key Facts about Iganga
80% of the population lives in rural areas, 20% live in peri-urban areas
Comprises the highest percentage of Muslims in Uganda
Remains a predominantly polygamous region
The average woman in Iganga gives birth to 8 children, 2 more than the Ugandan average overall
Exists on the main highway traveling from Kenya, making it a common stopping point for truck drivers, causing a high rate of prostitution and vulnerability to HIV/AIDS
The HIV/AIDS prevalence rate is 8% higher than the nationwide average of 6.7% ⁸⁸

Each of these factors influences the role of women in rural agriculture in some way. Conclusions drawn from this study must therefore take into account these and other cultural and regional differences before generalizing the findings of this study to other parts of the country and region. For example, the fact that Iganga district is home to the highest percentage of Muslims in Uganda influences the elevated levels of polygamy in the region, which changes the structure of rural families. Men in the Iganga region often have multiple wives, all of whom are expected to engage in crop agriculture for household food security. The wives often live in separate parts of the district, and resources are spread among them. Men may provide certain wives with more access to land, leaving others to engage in subsistence level farming with fewer resources.

⁸⁸ Why Iganga? *Musana Community Development Organization*. Information in this table found at: <http://musana.org/iganga.php>

Women in Iganga also have more children than women in the rest of Uganda. The average woman gives birth to two additional children (making a total of eight), leaving households in Iganga with higher food needs. Larger families also place heavier burdens on women as they are the primary caregivers for children in the family. Not only do they have to provide additional food resources for the family, they spend more time engaged in childcare activities such as bathing, feeding, and preparing children for school. The more time women spend engaged in household activities, the less time they have for farming, yet they are expected to produce larger outputs for bigger families. The abnormally high HIV/AIDS rate also seriously affects women farmers in Iganga district. Women living with HIV have difficulty accessing proper treatment and nutrition due to poor health infrastructure and lack of economic resources for transportation and care. This makes it difficult for women to engage in agricultural work at a highly productive level. The next chapter will take a historical look at how economic, political, and social factors influence the current state of women in agricultural production in Uganda.

CHAPTER THREE: UGANDA HISTORY AND CONTEXT

This section will explore relevant economic, political, social, and aid-related histories in the Ugandan context. The first section will focus on economic history as it pertains to individuals' ability to access financial services, mostly through microfinance. The second section will focus on a political history of development, starting with Idi Amin's rule and concentrating on the Museveni era as it has evolved since he took power in 1986. The third section will focus on Uganda's social history, particularly as it concerns rural women. This section will highlight historic access to education and healthcare, as well as shifting gender roles over time. The fourth section in this chapter will focus on the history of foreign aid and economic development in Uganda. This section will additionally cover the history of broad economic policies as they relate to agricultural development. The final section in this chapter will provide a brief presentation of the current situation for women engaged in rural agriculture as they fit into the larger Ugandan context.

Economic History

This section will present a brief history of microfinance in Uganda and conclude with a synopsis of the present microfinance environment. Broader economic policies will be discussed in a later section concerning foreign aid and economic development. As discussed in the previous chapter, access to microfinance (including credit, savings, and other financial services) often influences women's ability to create a sustainable

livelihood or earn income from rural agriculture. Microfinance as a development strategy first became popular in the early 1980's with Muhammad Yunis' establishment of the Grameen Bank⁸⁹. Microfinance was initially viewed as a silver bullet for development. Enthusiasm for microfinance revolved around the notion that providing poor people with access to small amounts of capital would allow them to start small business which could generate sustainable incomes and reduce poverty⁹⁰. While microfinance in practice has not elicited the success many hoped for in theory, evidence shows that "microfinance interventions have indeed the capacity to reduce poverty, contribute to food security, and change social relations for the better"⁹¹.

Uganda has been an active participant in the evolution of microfinance and is seen as having one of the most successful microfinance industries in Africa today⁹². According to the most recent data listed on MixMarket, a website that tracks microfinance data, there are 445,646 borrowers in Uganda today with an estimated \$523.1 million US dollars in loans⁹³. Beginning in the mid-1990's, microfinance institutions saw an opportunity to fill the gap for providing financial services to low income populations. Microfinance Institutions like FINCA and the Uganda Women's Finance Trust began offering financial services to people who were otherwise unable to obtain these services

⁸⁹ Hassan, Kabir M. "The Microfinance Revolution and the Grameen Bank Experience in Bangladesh", *Financial Markets, Institutions, and Instruments*, Volume 11, Issue 3, Aug. 2002.

⁹⁰ Carlton, A., H. Manndorff, and A. Obara. "Microfinance in Uganda", *Austrian Mission of Foreign Affairs, Department for Development Cooperation*, Dec. 2001, 8.

⁹¹ *Ibid*, 9.

⁹² *Ibid*, 10.

⁹³ Current numbers available at: <http://www.mixmarket.org/mfi/country/Uganda>

from commercial banks. By the end of the 1990's, Uganda's government had started to recognize the importance of access to financial services as an essential element for economic growth. The Ministry of Finance and Economic Planning began to take a keen interest in microfinance as a result⁹⁴. The microfinance industry in Uganda has benefited from a number of positive environmental factors, including “macroeconomic stability, strong and competent MFIs, practitioners and donors committed to best practices, MFIs with international alliances, and a by and large supportive government and a constructive cooperation among stakeholders”⁹⁵.

While the broad picture of microfinance in Uganda looks overwhelmingly positive, it begins to break down when one looks at the microfinance industry's impact on rural women engaged in agricultural production. To begin with, many microfinance institutions won't provide loans for agriculture due to the high risks involved in the sector. Given that 90 percent of Ugandans live in rural areas, and the majority of Ugandans rely on some combination of subsistence farming and casual wage work, benefits from microfinance are not reaching most of Uganda's population⁹⁶. According to MixMarket, less than one percent of Ugandan women currently access microfinance services⁹⁷. Women are responsible for 90 percent of Uganda's total food output, yet they

⁹⁴ Ibid, 16.

⁹⁵ Ibid, 17.

⁹⁶ “Feed the Future Uganda: Multi-Year Strategy 2011-2015”, *USAID*, Feb 2011. <uganda.usaid.gov>

⁹⁷ “Uganda Market Profile”, *Mix Market*, 2013. <www.mixmarket.org>

lack access to formal credit and savings services that could dramatically increase agricultural production⁹⁸. As Andy Carlton points out,

the large smallholder sector with average holdings of 1.6 hectares has seen very little real growth over the last decade due to the lack of access to agricultural inputs and financial services, declining soil fertility, poor infrastructure, information and communications and the inability to access output markets⁹⁹.

Increasing women's access to capital that would allow them to purchase agricultural inputs like fertilizer and improved seeds could dramatically increase agricultural yields both at a household level and at a national level.

Political History

Uganda's tumultuous political history generally hasn't favored rural women involved in agriculture despite periods of growth in the agricultural sector. Lack of meaningful inclusion among large segments of the population, corruption, and policies favoring affluent men in the ruling party to some extent define the political history in Uganda since independence. Uganda gained independence from Great Britain in 1962 and came under the rule of Dr. Milton Obote. Obote's first regime is known for its socialist policies and absolutism. Obote declared himself president in 1963 and enacted a new constitution giving the executive nearly absolute power¹⁰⁰. Despite the horrors associated with the Obote I regime, the agricultural sector flourished during his first term. According to Morris Ogenga-Latigo, "rapid agricultural transformation of the 1960's was hinged on holistic national and sub-sector foci, clarity of development goals and set

⁹⁸ "Feed the Future Uganda: Multi-Year Strategy 2011-2015", *USAID*, Feb 2011. <uganda.usaid.gov>

⁹⁹ Carlton, A., H. Manndorff, and A. Obara. "Microfinance in Uganda", *Austrian Mission of Foreign Affairs, Department for Development Cooperation*, Dec. 2001, 11.

¹⁰⁰ "Milton Obote, 80, Strongman in Uganda, Twice Overthrown", *The New York Times*, Oct. 2005.

policy objectives and targets, and commitment of real resources to the sector”¹⁰¹. The agricultural share of the annual budget ranged from 16 to 25 percent annually, as compared to 2 to 4 percent annually under Museveni’s regime over the last twenty years¹⁰². Obote was overthrown in 1971 by the infamous Idi Amin.

Amin is most widely known for torturing and killing an estimated 500,000 people during his eight year rule¹⁰³. His regime was characterized by economic and political destruction. Uganda’s GDP fell 25 percent during the Amin period. The agricultural sector suffered from “poor service delivery, shortage of agricultural inputs, market deterioration, and delayed payments to farmers” under Amin¹⁰⁴. The monetary agricultural sector was hit particularly hard, however, the subsistence agricultural sector experienced steady growth. Despite massive economic failures at a national level, individual households actually experienced relatively high rates of food security during this period, which could explain some of the nostalgia for the Amin era among select rural agricultural households in Uganda today¹⁰⁵. Amin’s government was overthrown in 1979 by a combined force consisting of members of the Tanzanian army and the Ugandan rebel group known as the United National Liberation Front¹⁰⁶.

¹⁰¹ Ogenga-Latigo, M. “Transforming Agriculture is a National Imperative”, *Daily Monitor*, July 2012.

¹⁰² Ibid.

¹⁰³ “Milton Obote, 80, Strongman in Uganda, Twice Overthrown”, *The New York Times*, Oct. 2005.

¹⁰⁴ Ed. Anderson, K. and W. Masters. “Distortions to Agricultural Incentives in Africa”, *The World Bank*, 2009, 335.

¹⁰⁵ Ibid.

¹⁰⁶ Ibid.

Milton Obote returned from exile shortly afterwards and was elected to the presidency under disputed circumstances, thus ushering in his second regime¹⁰⁷. Like Amin's regime, Obote's second term was marred by violence. An estimated 300,000 civilians were killed in clashes between the National Resistance Army (led by current president Yoweri Museveni) and Obote's government forces between 1980 and 1985, when Tito Okello took power. Responsibility for these deaths remains unclear¹⁰⁸. Growth in the agricultural sector averaged 2.5 percent annually during Obote II¹⁰⁹.

Women were largely excluded from politics during both Obote and Amin's regimes. Amin passed a decree in 1978 forming a National Council of Women, which required all women's organizations to follow the provisions of the decree, effectively pushing existing women's organizations underground and preventing the formation of new organizations¹¹⁰. Obote's second regime did have a women's wing, however, its primary use was to exert control over independent women's associations¹¹¹. It was not until Museveni took power that women gained noteworthy involvement in Uganda's political sphere.

Museveni came to power in 1986 after rebels from the National Resistance Movement overthrew Okello and installed Museveni as president. Before addressing

¹⁰⁷ "Milton Obote, 80, Strongman in Uganda, Twice Overthrown", *The New York Times*, Oct. 2005.

¹⁰⁸ Ibid.

¹⁰⁹ Ed. Anderson, K. and W. Masters. "Distortions to Agricultural Incentives in Africa", *The World Bank*, 2009, 331.

¹¹⁰ Tripp, A.M. "Gender, Political Participation and the Transformation of Associational Life in Uganda and Tanzania", *African Studies Association*, Vol. 37, No. 1, April 1994, 114.

¹¹¹ Ibid.

Museveni's policies regarding women, let us first turn to his agricultural sector reforms. In 1987, Museveni's government accepted a policy package from the IMF and World Bank as part of a formal economic recovery program. Agricultural growth increased to 3.7 percent a year between 1987 and 2004 following these reforms¹¹². While agriculture remains an essential part of Uganda's economy, its dominance as a percentage of the country's GDP has steadily declined since independence. According to Kim Anderson, in the late 1960's, the agricultural sector contributed 46 percent. This fell to 31 percent in 2004 and approximately 20 percent today¹¹³. Despite the agricultural sector's decline as a percentage of GDP over the past decades, agriculture remains the dominant livelihood strategy for 70 percent of Uganda's population¹¹⁴. The NRM's initial goal to move Uganda from subsistence agriculture to commercial agriculture has seen relatively little success¹¹⁵.

Early on, Museveni's rhetoric focused on diversification of the agricultural sector to improve economic growth. He placed emphasis on improving rural infrastructure and providing farmers with access to credit¹¹⁶. As part of the Economic Recovery Program negotiated with the IMF, Museveni placed emphasis on structural transformation of the economy which included activities like improving rural infrastructure and providing

¹¹² Ed. Anderson, K. and W. Masters. "Distortions to Agricultural Incentives in Africa", *The World Bank*, 2009, 332.

¹¹³ Ibid.

¹¹⁴ "Feed the Future Uganda: Multi-Year Strategy 2011-2015", *USAID*, Feb 2011. <uganda.usaid.gov>

¹¹⁵ Joughlin, J. and A.M. Kjoer. "The Politics of Agricultural Policy Reforms: The Case of Uganda", *Forum for Development Studies*, Vol. 37, Issue 1. 2010, 1.

¹¹⁶ Ibid, 2.

farmers with access to credit. Uganda experienced relatively substantial economic growth initially after these reforms, however, the question remains as to whether economic *transformation* occurred¹¹⁷. Many agricultural indicators suggest economic growth has not positively impacted the majority of the population. Real growth in agricultural output decreased from 7.9 percent in 2000/01 to 0.7 percent in 2007/08¹¹⁸. The number of people who are food insecure has reportedly increased from 12 million in 1992 to 17.7 million in 2007¹¹⁹. Joughin suggests the lack of structural transformation despite economic growth can be attributed to “unequal access to land, long marketing chains, and high transaction costs due to, among other things, poor rural infrastructure”¹²⁰. Museveni continues to publicly emphasize the importance of agriculture in Uganda’s economic growth, however, budget allocations suggest his priorities lie in other areas¹²¹.

On a positive note, Museveni has made attempts to include women in his government. The current constitution recognizes women’s right to political participation. Together, the Equal Opportunities Act of 2007 and the Uganda Gender Policy “provide a legal framework for inclusiveness and representation in all public offices. They have steadily increased the share of women who take part in political decision-making at all

¹¹⁷ Ibid, 3.

¹¹⁸ Ibid, 4.

¹¹⁹ Ibid, 4.

¹²⁰ Ibid, 5.

¹²¹ Ibid, 10.

levels of society”¹²². The percentage of women in parliament increased from 18 percent in 2000 to 33 percent in 2011¹²³. While women still struggle to attain equal political rights to men in Uganda, things appear to be moving in a positive direction under Museveni’s regime.

Social History

As discussed in the previous chapter, the social context of a country can significantly influence women’s ability to participate productively in agricultural development. Some important social factors to consider include education, health and nutrition, and gender roles. In Uganda, women have historically had less access to education and proper health and nutrition than men. Additionally, women have greater time constraints placed on them than men due to their double work burden within the household. Together, these factors make it difficult for women to fully participate in agricultural production as an income-generating activity, or to even successfully attain household food security through agriculture.

As in many other developing nations, women in Uganda have historically had less access to education than men. Neither Amin nor Obote devoted significant resources to developing the education sector in Uganda, either for men or for women. Amin did appoint a Commission to review Uganda’s education policies in 1977. The Commission proposed a development plan for education and set targets, including the introduction of

¹²² “Formative Evaluation of the United Nations Girl’s Education Initiative: Uganda Report”, *United Nations Girl’s Education Initiative*, April 2012. Accessed at: http://www.ungei.org/files/UNGEI_Uganda_Evaluation.pdf

¹²³ Ibid.

Universal Primary Education (UPE) by the year 2000¹²⁴. However, serious political turbulence meant the plan was never implemented. Obote's government was once again distracted by war, and did not implement any significant educational reforms.

When Museveni came to power in 1986, he saw the urgency of reforming Uganda's education system. Museveni's government introduced Universal Primary Education in 1997, and Uganda became the first country in Sub-Saharan Africa to implement UPE. Girls and boys alike benefited from this policy, with primary school enrollment rates tripling between 1996 and 2009¹²⁵. Girls and boys actually enrolled in primary school at similar rates. In 2009, the net enrollment rate for boys was 96 percent for boys and 90 percent for girls. While primary school enrollment statistics look overwhelmingly positive for boys and girls alike in Uganda, enrollment figures for girls drop significantly starting in secondary school. Girls are much less likely than boys to complete higher levels of education. Only one third of girls who enroll in primary school remain in school at age 18, while half of boys who enter primary school are still schooling at age 18¹²⁶.

Girls continue to face a plethora of limitations to accessing education. Low completion rates and poor performance are often attributed to "early pregnancy, sexual harassment, early marriage, female genital mutilation, lack of sanitation facilities in

¹²⁴ Ayoki, M. and M. Obwana, "Education Policy Reforms and Achievements of Universal Primary Education in Uganda", *Institute of Policy Research and Analysis*, Working Paper 11, 2003, 3.

¹²⁵ "Formative Evaluation of The United Nations Girls' Education Initiative: Uganda Report", *United Nations Girls' Education Initiative*, 2012, 28.

¹²⁶ *Ibid*, 29.

schools, and long distances to reach schools”¹²⁷. Furthermore, educating girls is generally not seen as a priority within the family because women will eventually marry outside of the family, thus taking any long-term benefits from education along with them. As previously stated, low levels of education among women negatively impact their ability to engage in agriculture. On the ground, women have difficulty keeping track of expenditures or yields, reading fertilizer or seed instructions, or engaging in monetary transactions without some level of education. At a policy level, there aren’t enough women with sufficient education to participate in policy-making decisions that affect agricultural production.

In addition to the lack of educational resources, women in Uganda historically lack access to healthcare and proper nutrition. Poor health and nutrition seriously affect agricultural production. Undernourished, sick, or pregnant women have lower capacities to participate in agricultural work. Some significant health factors affecting agricultural production include high fertility rates, HIV/AIDS, and low levels of nutrition. Uganda has historically had, and continues to have, one of the highest population growth rates in the world. Uganda’s population growth rate has actually increased from 3.0 percent in 1980 to 3.4 percent today, according to the World Bank¹²⁸. The average Ugandan woman gives birth to 6.1 children today. Reducing the population growth rate has not historically been a priority for Ugandan leadership, and continues to be low on the list of priorities today.

¹²⁷ Ibid, 30.

¹²⁸ “Population Growth Rates: Data, Uganda”, *The World Bank*, 2012.

HIV/AIDS, on the other hand, received significant attention among political leaders, including Amin. The first case of HIV/AIDS in Uganda was reported in 1982. Amin encouraged foreign doctors and scientists to conduct studies on the virus. Building on this precedent, Museveni addressed the HIV/AIDS challenge head on, speaking on the subject early and often. Museveni's government is well-known for popularizing the "ABC Campaign", which stands for "Abstinence", "Be Faithful", and "Use a Condom"¹²⁹. HIV rates dropped from 16 percent in 1996 to 4-6 percent in 2003. Uganda is often hailed as a rare success story in the reduction of HIV/AIDS infections. In recent years, however, the HIV/AIDS rate has increased steadily. The current infection rate is 7.2 percent¹³⁰. Men have higher levels of access to testing and treatment for HIV/AIDS than women. Women who are HIV positive are often accused of cheating and may be subject to domestic violence if the husband or boyfriend finds out her status. Therefore, few women choose to get tested even if they have the resources or capacity.

Women's lack of access to HIV testing and treatment is merely one example of the difficulties women face in Uganda. Although gender roles are continually shifting in Uganda, historically defined gender roles remain prevalent in society today. Traditionally, women are expected to care for the household. Duties include cooking, cleaning, and caring for children in addition to providing food for the family through agricultural production. Women historically have little economic power, which limits their decision-making authority in the household. Women are generally viewed as

¹²⁹ "The Age of AIDS: Uganda", *Frontline*, 2006. Accessed at: <http://www.pbs.org>.

¹³⁰ "AIDS Info Database", *UNAIDS*, 2012. Available at: <http://www.unaids.org>.

subordinate to men, and domestic violence is not only common, but widely accepted. Over the last several decades, Uganda has actually passed a number of legal reforms intended to increase women's rights. Very few, if any, of these reforms have worked in practice as they do on paper.

In 1985, Uganda ratified the Convention on the Elimination of all forms of Discrimination Against Women (CEDAW). Since 1985, a number of other UN conventions relating to women's rights have been signed as well. Uganda's constitution contains several provisions relating to women's rights, including Article 21, which states "all persons are equal before and under the law"¹³¹. Women have legal rights on the books according to statutory law, but legal rights become unclear when statutory law conflicts with customary or religious law. For example, under statutory law, women must be 18 years old before they get married. Under customary law, however, it is common for women, especially in rural areas to marry much younger. Further, polygamy is permissible under Islamic law¹³². A Marriage and Divorce Bill intended to provide equal rights for men and women within marriage was recently tabled by Parliament¹³³. The bill included provisions which would have allowed women the right to divorce their spouse in cases of cruelty, provided for equitable distribution of property in the case of divorce, and made bride prices non-refundable.

While various NGO's and women's rights groups are moving to promote gender equality in Uganda today, they face many barriers. Tradition holds great importance in

¹³¹ "Women's Rights in Uganda: Gaps Between Policy and Practice", *International Federation for Human Rights (FIDH)*, 2011, 7.

¹³² *Ibid.*, 10.

¹³³ *Ibid.*

Uganda, and crimes like domestic violence are a long way from being properly prosecuted, much less eliminated. Further, new Christian churches play a significant role in creating new barriers to the advance of gender equality in Uganda. These concerns are particularly pertinent for agriculture in the sense that women have very little control over agricultural decisions, including what to plant, how to market, and what percentage of crop yield goes to household consumption.

As a 2012 UNESCO report on the current state of women's rights in Uganda states,

In all regions of the country men have a clear advantage over women in access to and control over resources while cultural practices also bestow men with more power than women in different aspects. The current national constitution includes elements of economic and social rights that help to underpin efforts to mainstream gender equality in policies and programmes but high levels of poverty and resilience of patriarchal social constructs play a big role in constraining impact of many well intentioned policies¹³⁴.

If Ugandan women are going to participate actively and productively in agricultural development, these societal norms and institutional barriers must be changed.

International Aid

This section discusses the historical relevance of international aid as it relates to agricultural development in Uganda. Compared to many other countries in Sub-Saharan Africa, Uganda has been relatively successful in terms of overall economic growth in the last two decades. Foreign aid is often cited as having had a significant impact on

¹³⁴ "Gender and Education in Uganda", *UNESCO*, 2012, 35.

economic growth in Uganda¹³⁵. Strong GDP growth rates and “sound economic policies” are frequently attributed to heavy involvement of both the IMF and the World Bank in Uganda’s economy. Even Easterly, who has put forth several scathing criticisms of the impact of foreign aid, uses Uganda as his sole example of a “country-wide success story” in terms of aid-driven economic growth¹³⁶. According to the US State Department, Uganda sought help from the IMF and World Bank in 1987 after acknowledging the need for additional external support for the economy. The policy framework that came out of this negotiation and the economic policies that followed are cited as the impetus for a consistent pace of economic growth in the ensuing two decades¹³⁷. Uganda has received a tremendous amount of foreign aid in the last twenty years with Official Development Assistance (ODA) accounting for an average of 15.3 percent of the total GDP annually. In 1992, ODA made up over a quarter of the country’s total GDP¹³⁸.

Foreign aid has been accused of agenda setting in Uganda, as in many other developing countries. Washington-Consensus based policy prescriptions helped Uganda improve macro-economic indicators like GDP, but the distribution of this newfound wealth, as in other developing countries with similar policies, was uneven at best. Smallholder farmers did not benefit from the overarching economic policies imposed by the IMF and World Bank. Instead, a small percentage of people saw drastic increases in

¹³⁵ Easterly, W. “Can Foreign Aid Buy Growth?” *Journal of Economic Perspectives*. Volume 17, Issue 3, 2003: 12.

¹³⁶ Ibid.

¹³⁷ "State Department - Uganda." *U.S. Department of State*. 2011. Available at: www.state.gov

¹³⁸ "World Bank Uganda - Data & Statistics." *World Bank Group*. 2011. Available at: www.worldbank.org

incomes. As J.E. Stiglitz asks, then, “Is a society in which the vast majority of citizens are becoming worse off – but in which a few at the top are doing so well that average incomes are rising – better off than one in which the vast majority are better?” The answer here has to be no, particularly if the goal is to improve the welfare of average citizens in a country, many of whom rely on small-scale agriculture as a significant part of their livelihood strategy¹³⁹.

This chapter highlighted some of the key historical economic, political, social, and aid-related factors that affect small-scale women farmers in Uganda. From an economic perspective, women have struggled to access financial services through microfinance or other financial institutions. From a political perspective, women have historically been kept out of government positions, although this has begun to change under Museveni’s rule. Agricultural development has generally failed to qualify as a political priority. From a social perspective, women have had little access to healthcare and education. Traditionally, women have been expected to take care of the household, leaving little room for participation in income generating activities like agriculture for marketing purposes. While gender roles are continually shifting, and in many cases moving toward more equality, women still face many barriers due to social norms in Uganda today. Overall, while there are positive trends among many of the economic, political, and social factors affecting female farmers in Uganda, they still face many challenges in engaging successfully in agriculture today. The following chapter outlines the methods used to research current trends among small-scale female farmers in rural Uganda today.

¹³⁹ Stiglitz, J.E. “The Post Washington Consensus Consensus.” *The Initiative for Policy Dialogue*. 2008.

CHAPTER FOUR: RESEARCH DESIGN

Participant Pool

This research study primarily focused on a group of women who lived in two sub-counties within Iganga district – Bulamagi and Nawaningi. The group consisted of 62 women who are members of a non-profit organization called BeadforLife. BeadforLife focuses on “creating sustainable opportunities for women to lift their families out of extreme poverty”¹⁴⁰. BeadforLife members are enrolled in a 24 month program focused on income generation. They also participate in entrepreneurial, health, and other trainings during this period. Women earn money throughout the program by making paper jewelry and selling it to the organization. BeadforLife then sells the jewelry in the United States. The income women earn throughout the program is intended to be used to start a small business. In Iganga, most of the women’s businesses focus on agriculture, whether in the form of crop production or livestock rearing¹⁴¹.

Each of the women enrolled in BeadforLife’s Iganga program was recruited and vetted based on a number of factors. BeadforLife placed fliers throughout Bulamagi and Nawaningi sub-counties informing women about the recruitment process. The women were asked to attend an informational meeting about BeadforLife. The final group of 62 women was chosen from a pool of approximately 200 women who attended this meeting.

¹⁴⁰ *BeadforLife*. Accessed at: www.beadforlife.org

¹⁴¹ *Ibid.*

The group was narrowed down based on poverty indicators, motivation, and dedication to the program. BeadforLife staff members conducted home visits to each of the members and carried out initial baseline surveys. The women were asked questions ranging from how many meals they eat each day to the number of times their children have been sick in the last week to the type of roofing material they used on their house. Collectively, these questions helped BeadforLife staff members assess poverty levels in order to determine whether the program is a good fit.

Based on information from these initial surveys, the average age of the women enrolled in the program is 33.5 years. The average number of children per woman in the group is 5.5. This number is likely lower than the average eight children women typically have in Iganga district for a couple of reasons. First, many of the women are not finished reproducing, and will likely have more children during or after the program. Second, depending on how the question is asked, some women only count children still living at home and fail to include children who are already grown and have left the house. According to self-reported income statistics, the women earned an average of 51,132 UGX, or approximately \$20 USD, annually before they began the BeadforLife program¹⁴².

The researcher had the opportunity to interact with each of the 62 women enrolled in the program frequently, both in the field and at the main office in Iganga town. All of the women came into the office at least once a month for bead sales, and often came in at other times for additional trainings. Additionally, the researcher frequently traveled to the

¹⁴² Baseline survey conducted by Clare Tsungirwe and Agnes Okello, BeadforLife staff members. November 2012.

field to visit the women in their homes and gardens as part of the program's monitoring and evaluation component. This level of interaction was extremely useful for research purposes, since the women were both familiar and comfortable with the researcher.

Methods Used

The researcher used four primary methods to obtain data on the role of women in rural agriculture and food security in Uganda. The goal of using multiple research methods is to obtain the most accurate information possible with a given set of resources. Different methods can mutually reinforce each other and lead to stronger conclusions if the outcomes from unrelated approaches are similar¹⁴³. As Norman Denzin and Yvonna Lincoln argue, "the combination of multiple methods, empirical materials, perspectives, and observers in a single study is best understood, then, as a strategy that adds rigor, breadth, and depth to any investigation"¹⁴⁴. Using multiple research methods allows the researcher to overcome limitations in each individual method and gain different perspectives on the issue. The four primary methods chosen for this case study include participant observation, semi-structured key informant interviews, focus groups, and surveys. The following calendar outlines each of the six phases of research used for this project.

¹⁴³ Denzin and Lincoln qtd. in Ervin, A.M., *Applied Anthropology: Tools and Perspectives for Contemporary Practice*. 2nd ed., 2005, 190.

¹⁴⁴ Beebe, J. *Rapid Assessment Process: An Introduction*. Walnut Creek, CA: AltaMira, 2001, 20.

Table 2: Research Phases

Phase #	Dates	Primary Research Methodology	Status of Research
1	Sept. 2012 – Dec. 2012	Participant Observation	Complete
2	Dec. 2012, March 2013, and July 2013	Surveys	Complete
3	April 2013 – June 2013	Participant Observation and Semi-Structured Key Informant Interviews	Complete
4	July 2013	Focus Groups (2)	Complete
5	August 2013	Wrap Up Research in Uganda; Additional Focus Groups (2)	Complete
6	Sept. 2013 – February 2014	Data Analysis	Complete

Participant Observation

Participant observation was primarily used in the first phase of field research to gain a more detailed understanding of the factors affecting women engaged in small-scale rural agriculture in eastern Uganda. Participant observation is defined as “a research strategy whereby the researcher becomes involved in a social situation for the purpose of understanding the behavior of those engaged in the setting”¹⁴⁵. Between September 2012 and December 2012, the researcher engaged in participant observation with a group of women who were enrolled in BeadforLife’s program in Iganga. The researcher participated in a variety of agricultural activities with the women, including visiting fields to monitor the progress of crops, weeding, and harvesting sweet potatoes. The researcher also spent time with many of the women at their homes as they engaged in other daily

¹⁴⁵ Burnham, P., K.G. Lutz, and W. Grant. *Research Methods in Politics*. 2nd ed., 2004, 265.

activities, including cooking, childcare, and livestock management. These activities helped the researcher gain a better understanding of the women's lives and, more specifically, with their engagement in agricultural production.

The researcher also used participant observation intensively as a research method between March and May 2013 as the women cleared, planted, and harvested three demonstration gardens. The purpose of the demonstration gardens was to show the importance and effectiveness of planting groundnuts with proper spacing and using fertilizer on maize plants. Program members from BeadforLife were divided into three groups, and each group was responsible for all activities associated with their assigned plot. BeadforLife staff and the researcher were in charge of monitoring and oversight of the gardens. The researcher was involved in setting up the demonstration gardens. During this process, the researcher participated in clearing the gardens with a hoe, informing the women about the purpose of the demonstration plots, and planting seeds. In addition, the researcher visited one or more of the gardens approximately every two to three weeks to monitor their progress during the growing season. Post harvest visits were also conducted.

Surveys

The second research method involved surveys given to participants in the BeadforLife program. The researcher personally designed and administered the first two surveys, while the third survey was designed and administered by colleagues who worked in the BeadforLife Iganga office. The first two surveys were written in English first and translated into written Luganda by a translator the researcher hired. The third survey was written in English and translated into spoken Luganda during interviews by BeadforLife

staff members. The third survey therefore lacks consistent translations, and information gathered from this survey may not accurately reflect the questions asked. It does, however, provide a helpful picture of the overall situation in Iganga, so information gathered from this survey was used in the final write-up. The first two surveys were pre-tested on five program members to ensure accuracy of translation and to discover “flaws in wording, layout, length, and other unexpected factors”¹⁴⁶. Changes were made to the final survey accordingly based on these pilot surveys. Due to time and staff constraints, the third survey was not pilot tested.

The first survey was conducted in December 2012 and the second survey was conducted in March 2013. The surveys were given to a random sampling of women from the first BeadforLife group in Iganga. 48 women were interviewed for the December survey, and 44 women were interviewed for a follow-up survey in March. Four of the women originally interviewed could not be located for a second interview. The first survey identified what types of businesses women are involved in, focusing more specifically on agricultural businesses. The researcher gathered information about expenditures for agricultural inputs, portion of crops used for commercial versus household purposes, income (both agricultural and non-agricultural), household decision-making processes, primary expenses, and challenges faced during the previous growing season.

The second survey focused more specifically on post-harvest activities from the September to December growing season. The survey included questions about number of

¹⁴⁶ Ervin, A.M., *Applied Anthropology: Tools and Perspectives for Contemporary Practice*. 2nd ed., 2005, 197-198.

acres and types of crops planted, where the crops were sold, how much income was earned, and whether the woman had planted any cash crops. The researcher hoped to identify levels of income from crop sales in order to cross-reference this information with information about expenditures on agricultural inputs from the first survey. The purpose of this was to identify how much income women were earning from agriculture. Unfortunately, the researcher faced a number of challenges gathering accurate information. Therefore, the surveys will be used mostly to provide qualitative information instead of quantitative statistical analyses.

The third survey served as both a follow-up survey for the season ending in June and as a pre-season survey for the upcoming September season. Colleagues at the BeadforLife Iganga office, Esther and Rovienah, designed and administered the survey. They surveyed 49 of the 62 women. Questions included which crops the women planted, what challenges they encountered during the previous season, and which crops, and how many acres of each crop, they intended to plant in the upcoming season. The women were also asked to identify solutions to the challenges they faced in order to improve their yield in the upcoming season. The women were not given possible categories for solutions in order to try and avoid researcher bias.

Semi-Structured Key Informant Interviews

The third research method consisted of semi-structured key informant interviews. The purpose of conducting semi-structured key informant interviews is to gain insight from key people within the community who have knowledge of the research topic. Key informants can be defined as

a member of the host culture who helps social scientists, including anthropologists, ethnographers, sociologists, political scientists, and others to understand that culture; he or she guides them, provokes them, provides explanations, gives detailed and sometimes specialized information and links them to the community¹⁴⁷.

Semi-structured interviews allow for more flexibility than fully structured interviews.

This flexibility is beneficial because it allows the respondent to discuss important aspects of a topic that may have otherwise been overlooked. As Burnham, et. al. state, “The advantage of the informal interview is that it leaves the investigation open to new and unexpected information”¹⁴⁸. Instead of preparing very specific questions for the interview, the researcher would bring a list of general questions and topics to cover in the interview. Topics and questions were be specifically tailored to each key informant. This interview format is designed to make the respondent feel comfortable sharing information since the interview has a conversational nature. Key informant interviews were tape recorded with the consent of participants when possible. In a few instances, circumstances including background noise or the participation of too many people prevented the researcher from recording interviews.

Key informants were identified through a variety of methods. Some were introduced to the researcher by colleagues at BeadforLife. The researcher sought out experts in the field of agricultural development for interviews, particularly in Kampala. Other key informants were identified by Illiamu. In total, the researcher conducted 25 key informant interviews, of which five involved interviewing a group of two or more people

¹⁴⁷ Hefferan, T. "Key Informants: Who, How, and Why?" *Applied Field Methods: A Manual of Practice*. Ed. Peter Van Arsdale. 3rd ed. Centennial, CO: Center for Cultural Dynamics, 2005, 40.

¹⁴⁸ Burnham, P., K.G. Lutz, and W. Grant. *Research Methods in Politics*. 2nd ed. New York: Palgrave Macmillan, 2004, 241.

(both single-sex and mixed-sex). The researcher attempted to identify key informants from various sectors within the agricultural development field, ranging from academic experts to farmers working in the field. The semi-structured interviews therefore captured a broad spectrum of opinions and knowledge on the subject of women in agricultural development – from USAID’s Chief Agricultural Officer to g-nut sellers in the local Iganga market to professors at Makerere University. Interviews typically lasted approximately one hour.

Certain cultural factors had to be taken into account during interviews. Ugandans tend to favor indirect communication. They generally take time to get to know someone and place a high value on small talk and introductory remarks during a conversation. The researcher attempted to respect these customs by allowing sufficient time for greetings and introductions at the beginning of interviews.

Focus Groups

The fourth and final research method consisted of focus groups. The researcher chose to place focus groups at the final stage of research because focus groups tend to require more in-depth knowledge and understanding of the subject matter before they can be successfully conducted. The purpose of a focus group is to “gain further insight into an issue or topic of concern through dynamic interaction among respondents who have been selected to participate”¹⁴⁹. Focus groups are generally composed of six to eight people and are designed to generate discussion through the group setting. Focus group selection

¹⁴⁹ Van Arsdale, Peter. *Field Research Methods*, Class Lecture. Josef Korbel School of International Studies, Denver. Fall Quarter 2011.

should center on choosing participants of similar gender, socioeconomic status, and skill-set in order to avoid power differentials.

The first two focus groups were designed to gather information about farmers' engagement with agriculture in Iganga. The first group was composed of female members from the BeadforLife program. Choosing BeadforLife program participants ensured that members were of similar socioeconomic status, since members must meet certain socioeconomic indicators in order to be invited to participate in the program. The second group was composed of male farmers from the same sub-county that the female participants lived in. Unfortunately, given time and budget constraints, the researcher was not able to conduct a socioeconomic assessment of men who participated in the focus group. However, each of the men chosen to participate came from the same sub-county as the women, and were likely in similar socioeconomic circumstances as a result of their location.

The researcher hoped to identify similarities and/or differences in the ways men and women viewed rural farming by conducting one focus group for men and one for women. The researcher's co-worker Rovienah was asked to help identify ten women (in anticipation that fewer than ten confirmed participants would actually attend) from the BeadforLife program who are actively engaged in farming in Nawaningi sub-county¹⁵⁰.

¹⁵⁰ As an interesting note on the challenges associated with fieldwork, here is a brief anecdote regarding this particular focus group: Rovienah called each of the women and explained the purpose of the focus group before asking them to participate. Unfortunately, due to some confusion about the date, the translator and the participants were asked to arrive at the location for the focus group on different days. The error was unfortunately only discovered when the translator was the only one to show up to the office. The translator had traveled from Kampala – a journey of about three hours each direction – to participate in the focus group. Each of the women had to be called and informed of the mistake and asked to come in the same day. After several hours of waiting, and sending the translator out for lunch, eight women arrived at the office and the focus group was conducted successfully.

Finding men to participate in the focus group was slightly more challenging since BeadforLife focuses on working with women. The researcher rejected the notion of asking the women's husbands to participate in a focus group to try and keep the participants as unbiased in their answers as possible. Instead, Rovienah asked a well-known local farmer (Nyende Wilbur) to locate ten male farmers from Nawaningi sub-county and ask if they were interested in participating. Out of ten confirmed participants, eight attended the focus group.

The second two focus groups were not as formally organized. The researcher's assistant, Illiamu Tenwa, aided the researcher in gathering two groups of local farmers together to discuss their experiences farming in Iganga. The first group meeting was held in Buligo sub-county. The meeting was held outside in an open area near someone's house. A few chairs were provided for the researcher and assistant in addition to the men in the group. The women sat on the ground. Twenty women and two men participated. The presence of men, despite the fact that they were significantly outnumbered by women, did affect the power dynamics within the group to some extent. However, the women still participated and gave answers similar to those received in the focus group containing only women.

Illiamu introduced the researcher and explained the purpose of the group. He then translated questions from the researcher to the participants and vice versa. The meeting lasted approximately one and a half hours. In addition to farming activities, members of this group also participated in a village savings and loan program. Each member was required to save between 1,000 and 5,000 Ugandan shillings (UGX) per week. At the end of ten months, the savings were released to individual members. Members were able to

take loans for capital and/or welfare during this period. Welfare up to 30,000 UGX was lent at no interest as long as it was repaid in two to three weeks. Members could borrow capital up to the amount they had saved times three. Capital loans had to be repaid within three months at an interest rate of 10 percent.

The final focus group was once again organized with the help of Illiamu. Illiamu was unable to attend this group session, so he organized for a friend of his to accompany the researcher for translation purposes. This group was also made up of farmers who had come together to start a village savings and loan association. The group was held in Bulamagi sub-county, which is one of the two counties BeadforLife currently works in. None of the participants were BeadforLife members. Four men and 26 women participated. The VSLA component for this group was set up in a similar manner to the Buligo group. Members contributed to a pool of money which could be lent out as capital and repaid with an interest of 10 percent after one month. This focus group was held outside at first. Once again, the researcher, translator, and male members of the group sat in chairs while the women sat on the ground. After approximately an hour, serious rain started in and the group was moved inside a small room in someone's nearby house. The researcher was able to have a longer discussion with this group due to the rain. The discussion continued inside for approximately another hour and a half.

A Note on Translation/Interpretation

While the researcher did study Luganda and attain some level of proficiency with the language, translation and interpretation were still needed throughout the research process. In addition to a lack of fluency in Luganda, the researcher encountered difficulties conducting research in an area where the primary language is Lusoga. Lusoga

and Luganda are linguistically very similar, however, it is difficult for a beginner speaker of Luganda to understand and/or converse with a native Lusoga speaker. Therefore, in order to ensure that translation and interpretation issues did not skew the research, translators and interpreters were used throughout the research process. As previously mentioned, the first two surveys were translated from English into Luganda. The researcher chose not to translate the surveys directly into Lusoga at the advice of colleagues, who suggested that Lusoga is more difficult to translate into writing, even for a native speaker. They believed the survey would be more accurately understood if it was translated into Luganda.

The researcher used a number of interpreters during the research process. The researcher's colleagues were especially helpful in providing interpretation for day to day activities and interactions with members of the BeadforLife program, whether in the field or at the office. The researcher hired a formal interpreter for the first two focus groups. Unfortunately, it seemed this interpreter did not have a great deal of experience interpreting and was often distracted and unprofessional. On several occasions, the researcher had to remind the interpreter to pause and interpret responses from the members. One of the researcher's colleagues realized the issue, and graciously stepped in to assist with interpretation for the second focus group. Toward the end of the research project, the researcher informally hired an assistant to help organize interviews and group discussions. The assistant was helpful in providing interpretation for each of these activities.

Overall, the research design for this project was based on a plausibility probe case study approach – focusing on a small group of women in Iganga, Uganda. This chapter

outlined the justification for choosing this particular setting for a research project, arguing that information gathered here could be more broadly applicable in other areas of Uganda and perhaps East Africa as well. Although Iganga has some uniquely defining characteristics, such as the large number of Muslims living in the area and the high percentage of HIV infections, many of the challenges faced by female farmers in Iganga are similar to challenges female farmers face in other areas of the country and region as a whole. These challenges were identified through a variety of research methods, including participant observation, surveys, semi-structured key informant interviews, and focus groups. The following chapter presents the findings from this research project according to eight key factors that affect female farmers in Iganga. These factors are analyzed through pertinent economic, political, and social contexts throughout the chapter.

CHAPTER FIVE: KEY RESEARCH FINDINGS

After organizing and analyzing the data collected for this project, the researcher has identified eight key factors that substantially influence the ability of women in Iganga to establish household food security and generate sustainable livelihoods from small-scale rural agriculture. These factors include lack of access to capital, lack of access to improved agricultural inputs (fertilizers, pesticides, improved seeds, etc.), lack of access to land, lack of access to markets, lack of access to human capital (health and education), social norms and roles for women, and environmental factors such as unpredictable weather patterns, pests, and plant diseases. This chapter will address each one of these factors using research gathered in Uganda through the methods outlined in the previous chapter. Additionally, this chapter will highlight the economic, political, and social context for each of these factors when relevant. Overall, this section will present a broad picture of the challenges facing women engaged in small-scale rural agriculture in eastern Uganda, identify the context for these challenges. The concluding chapter will then highlight the feasibility of addressing these challenges within the social, political, and economic context of the region.

Socio-economic Profile of Female Smallholder Farmers in Iganga

Before delving in to the key challenges women face in creating sustainable livelihoods through small-scale agriculture, this section will provide a brief socio-economic profile of a typical female farmer in Iganga based on researcher observations.

Most women in Iganga have fairly large families – somewhere between 6 and 8 children on average. Many of them are co-wives and may or may not live full time with their husbands. Women’s time is taken up with farming for household food security purposes, caring for children, cooking, and cleaning the home. Some women are engaged in other small-scale income-generating activities such as selling roasted maize or g-nuts. These activities generally take place near their homes and they earn minimal income. Women are also in charge of caring for animals around the house such as chickens, goats, or cows, although they do not own or control these resources. Livestock and other resources like land, buildings, and cash are controlled by the husbands in most cases. Some wives have husbands who support them in their work. Women with supportive husbands tend to be more involved in agriculture for income-generating purposes and may have better access to labor saving technologies. Overall, women in Iganga have a heavy work burden and are expected to provide for household needs while their husbands earn monetary incomes that may or may not be reinvested in the family.

Lack of Access to Capital

One of the fundamental challenges women face in participating in small-scale agricultural production at a level that will allow for sustainable income generation and household food security is the lack of access to capital. Capital plays an essential role in agricultural production. Capital influences a farmer’s ability to succeed throughout the agricultural process. Before the start of each season, farmers need capital to purchase or rent land. If they don’t have enough family labor, they may need capital to hire labor to help with clearing, planting, weeding, and harvesting. Capital can also be used to purchase tools like hand hoes or to invest in improved clearing technology, such as an ox

plow. Once the crops are grown and harvested, farmers need to invest in storage methods for their crops, including bags and wooden pallets. If the farmer intends to market their goods in town or elsewhere, they need capital for transporting the final product. Farmers who have access to enough capital to invest in improved technologies have a better chance of success than those who do not. While other factors influence the final yield, initial capital investments in agriculture are an essential building block for success.

Most of the women in this study have extremely limited access to capital for agricultural use. They are often forced to rely on traditional farming methods because they can't afford improved technologies. For example, over two-thirds of the women in this study clear land using a traditional hand hoe¹⁵¹. They rarely have access to enough capital to rent an ox plow to clear the land. Ox plows have many benefits, including “higher yields, greater returns, improved household food availability, and reduced drudgery”¹⁵². Other improved agricultural inputs, including disease resistant or higher yielding seeds, fertilizers, and pesticides are frequently priced out of the range of what women can afford to purchase. They often reuse seeds from the previous harvest and apply little or no fertilizers and/or pesticides, thus reducing potential yields. According to the UN's Gender Policy Brief for Uganda's Agricultural Sector, “increasing use of

¹⁵¹ McKenna, K. “Agribusiness in Iganga”. December 2012. Survey.

¹⁵² Obuo, J. and D. Barton. “The Impact of Ox-weeding on the livelihoods of small farmers in the Teso Farming System”, *DFiD Crop Protection Program*, 2003, 7.

improved inputs is key to enhancing yields and production at farm level and ultimately increasing individual and household incomes¹⁵³”.

The economic environment in Iganga does not facilitate easy access to capital for most women. According to Dr. Peter Walekwa, a professor at the University of Makerere’s Agriculture Department, one of the major constraints for women (and men) involved in agriculture in Uganda is the lack of access to basic financial services. Large commercial banks are “exploitative” and place unrealistic terms on loans, especially for small-scale agriculture. Many commercial banks refuse to provide loans for agriculture, or enforce extremely high interest rates, due to the risky nature of agricultural production. Other banks will provide agricultural loans, but the borrower has to provide collateral, which most women lack¹⁵⁴. Many small farmers avoid banks out of fear of the repercussions associated with defaulting on a loan. Most farmers “rely on the little they have for survival” rather than risk the consequences of defaulting on a loan after a bad season¹⁵⁵.

Some banks have slowly started developing agricultural loans through a system of warehouse receipts. Farmers bulk produce at the end of a season and sell it to warehouses. The warehouses, in turn, provide receipts to farmers to use as collateral at commercial banks in order to receive credit. While this system looks promising for

¹⁵³ “Gender Policy Brief for Uganda’s Agricultural Sector”, *United Nations Entity for Gender Equality and the Empowerment of Women*, 2012, 15. Accessed at: <http://www.womankind.org.uk/wp-content/uploads/downloads/2013/06/FOWODE-Gender-policy-brief-for-Ugandas-Agriculture-sector.pdf>

¹⁵⁴ Walekwa, Peter (Makerere Professor, Faculty of Agriculture); Kampala. June 24, 2013. Personal Interview.

¹⁵⁵ Jakob (Coordinator, Iganga District, National Agricultural Advisory Services); Iganga. July 16, 2013. Personal Interview.

medium-sized farming collectives, it is unlikely that small-scale women farmers will be able to take advantage of this opportunity. The minimum amount of produce accepted at warehouses varies, but is typically about one ton¹⁵⁶. The women would have to organize themselves into a collective, produce a sufficient amount of food to sell to the warehouse, pass quality standards, find a storage unit, arrange transportation (the nearest warehouse to Iganga is approximately 40km away in Jinja¹⁵⁷), and determine how to fairly split the profits.

Dr. Gabriel Elepu, one of the leading experts in the warehouse receipt system in Uganda, recognizes the challenges that small-scale farmers face in taking advantage of the warehouse receipt system. He noted that this concept could be adapted to a smaller scale by banking grain and other produce in a community store with a community financial service provider who is willing to help small-scale farmers access credit through a similar system¹⁵⁸. Dr. Elepu emphasized the importance of collectivization among small-scale farmers, stating, “there is no way you can help them if they are not in groups”¹⁵⁹. Microfinance organizations also rely heavily on the concept of groups as a way to bypass the fact that most small-scale farmers have little or not collateral.

Unfortunately, although there are several microfinance organizations operating in Iganga, it is still difficult for women to access loans. Microfinance organizations, like commercial banks, tend not to provide loans for agricultural purposes because agriculture

¹⁵⁶ Elepu, Gabriel (Makerere Professor, Faculty of Agriculture); Kampala. July 2, 2013. Personal Interview.

¹⁵⁷ Ibid.

¹⁵⁸ Ibid.

¹⁵⁹ Ibid.

is viewed as a risky investment. Microfinance organizations generally offer better terms than commercial banks, however, and they are able to use group pressure to encourage borrowers to pay back loans¹⁶⁰. Mr. Bill, the Assistant Program Officer for the Hunger Project in Iganga, cited the importance of improving access to microfinance and forming groups as two of the most significant factors in increasing agricultural production. By working in groups, women would be able to access loans, pool resources, and purchase improved agro-inputs to increase production¹⁶¹.

An alternative method of accessing finance has gained increasing popularity in Iganga. Instead of relying on commercial banks or microfinance institutions for access to capital, many small-scale farmers are turning to group (or village) savings and loan associations, or G(V)SLAs. According to a focus group conducted with male farmers in Iganga, VSLAs are the best way to access capital for agriculture. VSLAs are designed to have members save and take out loans on a smaller scale, whereas commercial banks are designed to lend money to big traders¹⁶². Groups are typically composed of 10 to 20 people who meet on a weekly basis. Members are expected to contribute approximately 1,000 UGX to 5,000 UGX per meeting as savings and 200 UGX per week as welfare. One of the VSLAs the researcher visited allowed members to borrow up to 30,000 UGX for welfare at no interest. The member is expected to pay the welfare loan back in 2-3 weeks. Members can also borrow capital loans up to three times the amount they have

¹⁶⁰ Walekwa, Peter (Makerere Professor, Faculty of Agriculture); Kampala. June 24, 2013. Personal Interview.

¹⁶¹ Assistant Program Officer for the Hunger Project; Iganga. June 6, 2013. Personal Interview.

¹⁶² Male Farmers; Iganga. July 9, 2013. Focus Group.

saved at an interest rate of 10 percent. Capital loans must be cleared in three months¹⁶³.

Many NGOs in Iganga have started incorporating VSLAs into their programs as a means of providing financial services to their members. The Farmers Development Trust Initiative, for example, uses VSLAs to meet routine demands for credit¹⁶⁴.

VSLAs present their own set of challenges, however. Most VSLAs expect repayment of loans in three months, which is not conducive to agricultural production. Seasons last longer than three months, and farmers are not able to borrow and repay with the profits from a single season in this timeframe¹⁶⁵. According to Patricia Kampire, a staff member at USAID's Community Connector program, VSLAs can negatively impact food security and nutrition. Farmers will plant a garden in order to meet the savings demands of the VSLAs, but they may not necessarily reinvest those profits into agriculture. VSLAs frequently share the members' savings around holidays like Eid and Christmas, encouraging the savings to be spent on holiday preparations instead of long-term sustainable investments¹⁶⁶. Dr. Elepu notes that VSLAs can be a good way to mobilize small amounts of money; however, they also create a vicious cycle where low savings equal low investments. VSLAs do not allow for substantial growth in the agricultural sector.

¹⁶³ Buligo VSLA; Iganga. July 25, 2013. Focus Group.

¹⁶⁴ Farmer's Development Trust Initiative; Iganga. July 30, 2013. Group Interview.

¹⁶⁵ John (Coordinator, Iganga District Farmer's Association); Iganga. July 16, 2013. Personal Interview.

¹⁶⁶ Kampire, Patricia (Staff Member Community Connector Program, USAID). August 5, 2013. Personal Interview.

Social constraints may also prevent or inhibit women's access to finance through VSLAs or other sources. Women lack mobility in Iganga. They are by and large expected to stay at home and care for the household or work in nearby gardens. Women who travel into town may be viewed suspiciously by their husbands. They risk being accused of cheating, which could result in domestic violence. Many VSLAs meet out in villages or sub-counties, making it easier for women to travel to meetings. Neighbors and other members of the community can verify that women were attending a VSLA meeting, whereas it is more difficult to verify a woman's whereabouts if she travels to town to access a commercial bank or microfinance organization.

Lack of Access to Improved Agro-Inputs

Another challenge confronting small-scale female farmers in Iganga is the lack of access to improved agricultural inputs, including ox plows for clearing land, fertilizers and pesticides, improved seeds, and other technologies. Unfortunately, as discussed in the previous section, small-scale farmers have limited options to access credit. Farmers are often forced to use the most rudimentary, inexpensive methods to clear, plant, and harvest due to capital constraints. Each of the four focus groups identified access to better technologies as an important step in improving their agricultural production, whether in the form of an ox plow, spray pumps, or agro-chemicals¹⁶⁷. While economic constraints arguably play the largest role in preventing women from accessing improved agro-inputs, political and social factors also influence access to these technologies. Chemicals and

¹⁶⁷ Female Farmers; Iganga. July 8, 2013. Focus Group., Male Farmers; Iganga. July 9, 2013. Focus Group., Buligo VSLA; Iganga. July 25, 2013. Focus Group., Bulamagi VSLA; Iganga. August 7, 2013. Focus Group.

sprays are often seen as too expensive for small-scale farmers to invest in¹⁶⁸. However, Dr. Walekwa of Makerere University argues that it is economically viable to use fertilizers and other chemicals on a small scale¹⁶⁹. Farmers can significantly increase their yields using these products. For example, Dr. Elepu reports yields of up to 25 bags (or 2,500kg) of maize per acre using fertilizer. This is in stark contrast to the yields reported by women in this study, who harvested an average of 2.86 bags (or 286kg) per acre¹⁷⁰. If farmers can make the initial investments in fertilizers and other agro-inputs, they should see substantial increases in their yields. Higher yields could allow farmers to use their produce for both food security and marketing purposes.

Some of the low uptake of improved agro-inputs may come from social perceptions of new technology. BeadforLife staff members Kyomuhendo Rovienah and Naaya Esther believe the attitude toward using improved agro-inputs has become more positive in recent years. More and more farmers are “embracing modern ways of farming”¹⁷¹. As one member of the women’s focus group stated, “we didn’t have interest in things like fertilizer before we joined BeadforLife. All along we just planted and left things to the mercy of God¹⁷²”. Although the rhetoric surrounding improved agro-inputs tends to be positive among farmers, many agricultural experts are skeptical about the actual uptake of improved technologies. Farmers often report what they think researchers

¹⁶⁸ Assistant Program Officer for the Hunger Project; Iganga. June 6, 2013. Personal Interview.

¹⁶⁹ Walekwa, Peter (Makerere Professor, Faculty of Agriculture); Kampala. June 24, 2013. Personal Interview.

¹⁷⁰ McKenna, K. “Post Harvest Survey”. March 2013. Survey. McKenna, K.

¹⁷¹ Kyomuhendo, Rovienah and Naaya, Esther (Staff, BeadforLife Iganga); August 22, 2013. Group Interview.

¹⁷² Female Farmers; Iganga. July 8, 2013. Focus Group.

want to hear, rather than what they are actually practicing. According to various observations and discussions on the researcher's behalf, improved agro-inputs are not used as frequently as farmers say they are. Small-scale farmers, in particular, are hesitant to invest in products when they are unsure of the benefits. Therefore, the uptake of fertilizers and other new agricultural products is low in Iganga, although it is likely to increase gradually in the future. Women in Iganga are likely to start using fertilizers more once they observe the improved yields. One woman in the program even started her own maize demonstration plot – half with fertilizer, half without – before determining that fertilizer use was indeed worth the extra initial cost due to significant increases in outputs.

In many cases, farmers are right to be skeptical about the advantages of using improved agro-inputs on account of the large market for fake agricultural products in Uganda. USAID's Feed the Future initiative has a separate Agricultural Inputs Project aimed solely at improving the quality of agro-inputs available to farmers by working with stockists, input companies and associations, and government of Uganda entities¹⁷³. Uganda's political environment is not particularly conducive to ensuring the highest quality products reach small-scale farmers. The Ministry of Agriculture is relatively weak. As with other ministries in the Ugandan government, the Ministry of Agriculture suffers from high levels of corruption. Regulations are rarely enforced, and there is a vested interest in maintaining the status quo. As an example, certain seed companies have cornered the market in Uganda, and people within the Ministry of Agriculture may

¹⁷³ Derks, Eric and Staff (Chief of Party, Uganda FeedtheFuture Agricultural Inputs Project at TetraTech ARD); Kampala. July 19, 2013. Group Interview.

benefit from allowing these seed companies to continue dominating the market whether or not they are producing quality products¹⁷⁴. Government corruption also affects the distribution of inputs. Government programs like the National Agricultural Advisory Services (NAADS) are supposed to distribute improved inputs to small-scale farmers, but many of these inputs “disappear somewhere” according to a Makerere professor interviewed for this project¹⁷⁵.

From a social perspective, Uganda’s population growth rate is influencing the need for improved agro-inputs. Nearly all of the agricultural experts interviewed for this research project emphasized increased access to intensive farming techniques as the key to creating a sustainable income source through agriculture. Massive population growth has led to land fragmentation. Culturally, it is seen as important to have a large family. It is not uncommon for families in the Iganga area to have more than 8 children. Once the children grow up, land is divided among each of them. Many families own one or two acres of land, which is not enough for each of the eight children to raise families after it is divided. People are forced to farm on smaller and smaller plots of land while still trying to produce enough food to feed a large family¹⁷⁶. As the Coordinator for the Northern Division of the National Agricultural Advisory Services states, “the lack of land in semi-urban areas is only going to increase this problem. There is a need for a radical shift from

¹⁷⁴ USAID Staff; Kampala. July 12, 2013. Personal Interview.

¹⁷⁵ Makerere Professor. Personal Interview.

¹⁷⁶ Kagoda, Sam (Animal Husbandry Officer, National Agricultural Advisory Services); Iganga. July 25, 2013. Personal Interview.

extensive agriculture to intensive agriculture. Extensive agriculture isn't viable anymore¹⁷⁷”.

Gender roles also play a part in the level of access farmers have to agro-inputs. Female farmers are far less likely to use improved technologies than male farmers. While the men in the male farmers focus group enthusiastically discussed their desire to start using tractors to clear land, the women's focus group never mentioned using tractors for clearing¹⁷⁸. Perhaps this comes from an economic standpoint, where women are less likely to access the finance necessary to hire a tractor, but it could also be indicative of the social roles associated with technology, as Patricia Kampire of USAID's Community Connector program suggests¹⁷⁹. Pontian Muhwezi, the Chief Program Officer of the United Nation's International Fund for Agricultural Development, notes that “women use crude tools, while intermediate and advanced agricultural technologies are used by men¹⁸⁰”. Increasing the use of improved agricultural inputs could not only increase yields, but could also reduce the burden on women. As Dr. Walekwa of Makerere University notes in the context of farming, “women's drudgery is too much¹⁸¹”.

¹⁷⁷ Sam (Coordinator, Northern Division, National Agricultural Advisory Services); Iganga. July 17, 2013. Personal Interview.

¹⁷⁸ Male Farmers; Iganga. July 9, 2013. Focus Group.

¹⁷⁹ Kampire, Patricia (Staff Member Community Connector Program, USAID). August 5, 2013. Personal Interview.

¹⁸⁰ Muhwezi, Pontian (Chief Program Officer of the United Nation's International Fund for Agricultural Development); Kampala. June 24, 2013. Personal Interview.

¹⁸¹ Walekwa, Peter (Makerere Professor, Faculty of Agriculture); Kampala. June 24, 2013. Personal Interview.

Lack of Access to Land

In addition to lacking access to improved agro-inputs, most women in Iganga lack access to sufficient amounts of land to engage in sustainable income-generation through agriculture. From an economic perspective, women don't have (or control) enough financial resources to purchase, or even rent, land in many cases. From a political perspective, women face legal obstacles to owning land. Some laws have been put in place in recent years to protect or give women the right to own land, but social practices often outweigh legal rights. Societal norms discourage women from owning or renting land, as this is seen as a male domain. Social pressure tends to outweigh legal rights in many areas, including land ownership. While women legally have the right to own land in Uganda, social norms frequently dictate otherwise. Land is commonly divided among male family members, leaving women to rely on either their husband's or father's land for survival. Since women don't own the land, they are often at the mercy of the legal owner to determine what to plant and how the produce will be used at home or marketed. Without access to sufficient amounts of land, whether through buying or renting, women will not be able to engage in small-scale agriculture on a level that allows for household food security or income generation.

Lack of access to land was continuously cited in surveys, interviews, and focus groups as one of the primary constraints to successful farming in the Iganga area, and in Uganda more broadly. According to the Assistant Program Officer for the Hunger Project in Iganga, it is very difficult for women to purchase land because they are not economically empowered. He believes women's rights are slowly changing in a way that

will allow them to purchase land and own assets¹⁸². However, finding land to purchase or rent in Iganga is challenging. To begin with, most of the land in Iganga is ancestral land, meaning the family has to agree on who can use the land for farming. According to Jakob, the coordinator for NAADS in Iganga, ancestral land is rarely available for rent, seriously limiting the options for women or families who don't already own ancestral land in the area¹⁸³.

Women face particularly big challenges when it comes to ancestral land, because they are not entitled to inherit land through the family. Societal norms don't allow women to own land, even in the case of her spouse's death. It is not uncommon for women to outlive their spouses given the frequent practice of older men marrying young women. When a man passes away, his relatives frequently engage in "land-grabbing" from the widow, leaving the woman without any property. According to Dr. Walekwa, the Ugandan government has recently tried to discourage land-grabbing through protective legal frameworks, and NGOs like World Vision and ActionAid have "done a great job improving women's rights to land"¹⁸⁴. While many of the respondents for this research project acknowledged that women's rights to own land are improving, lack of land ownership or asset ownership was still frequently cited as the biggest challenge facing women farmers in Iganga¹⁸⁵.

¹⁸² Assistant Program Officer for the Hunger Project; Iganga. June 6, 2013. Personal Interview.

¹⁸³ Jakob (Coordinator, Iganga District, National Agricultural Advisory Services); Iganga. July 16, 2013. Personal Interview.

¹⁸⁴ Walekwa, Peter (Makerere Professor, Faculty of Agriculture); Kampala. June 24, 2013. Personal Interview.

¹⁸⁵ Staff (Busoga Shining Light Association); Iganga. July 25, 2013. Group Interview.

Women in Iganga typically plant on very limited acreage. They are expected to provide food for the household, which could easily be made up of ten or more people, from one or two acres of land. According to the first survey conducted among BeadforLife members, women reported planting an average of 2.25 acres¹⁸⁶. BeadforLife members reported planting an average of 2 acres in the second survey¹⁸⁷. They reported planting an average of 2.3 acres in the third and final survey¹⁸⁸. Without the assistance of BeadforLife, farmers in Iganga reported even lower numbers of acres planted per season. Participants in the Bulamagi focus group were asked to report the number of acres they farmed in a season. 19 members reported farming on less than one acre, four members planted between one and two acres, and nobody reported planting more than two acres¹⁸⁹. As discussed in the previous section, most women lack access to improved agro-inputs, meaning crop yields are low. The yields are often of poor quality as well, making it difficult for women to market any excess produce they may have.

Lack of Access to Markets

In order to generate income from agricultural production, women must be able to access markets to sell their goods. Again, the economic, political, and social conditions in Iganga place constraints on women's ability to access markets for their produce, if they are able to market at all. From an economic perspective, women can rarely afford the transportation costs associated with bringing their goods to a larger market, such as the

¹⁸⁶ McKenna, K. "Agribusiness in Iganga". December 2012. Survey.

¹⁸⁷ McKenna, K. "Post Harvest Survey". March 2013. Survey.

¹⁸⁸ Kyomuhendo, R. and Naaya, E. "Post Harvest Survey 2". August 2013. Survey.

¹⁸⁹ Bulamagi VSLA; Iganga. August 7, 2013. Focus Group.

market in Iganga town. Even if they can afford the transportation costs, they produce such small quantities of produce that the financial benefits of selling in town do not outweigh the costs incurred in transport of goods. Households in Iganga tend to have severe financial constraints that force the sale of products immediately after the harvest instead of waiting for higher prices. From a political perspective, the government has historically discouraged the formation of farming cooperatives for fear that farmers would organize against the government¹⁹⁰. This places small-scale farmers at a distinct disadvantage, since most of them do not produce enough crops individually to receive a good market price. From a social perspective, women are discouraged from participating in the sale of produce, particularly in larger markets. Marketing is distinctly defined as a male role, especially if the income is significant.

As a result of these conditions, most women in Iganga sell small amounts of produce to local traders who move around the villages immediately following the harvest. 2/3 of BeadforLife members in the first survey reported selling their produce to local traders who move around the villages¹⁹¹. They look for people who are walking through the villages with scales¹⁹². While this may not necessarily be a bad market strategy, as it reduces transportation costs, it puts the women at a high risk of exploitation. Participants in the focus groups were particularly vocal about the challenges they face in marketing to traders, saying things like, “we have a small market, traders take advantage of it¹⁹³”, and

¹⁹⁰ Elepu, Gabriel (Makerere Professor, Faculty of Agriculture); Kampala. July 2, 2013. Personal Interview.

¹⁹¹ McKenna, K. “Agribusiness in Iganga”. December 2012. Survey.

¹⁹² Female Farmers; Iganga. July 8, 2013. Focus Group.

¹⁹³ Male Farmers; Iganga. July 9, 2013. Focus Group.

“we are exploited by middlemen who buy maize at a low cost and sell at a higher cost¹⁹⁴”. It is difficult for the women to receive a good price for their crops from traders due to the small amounts they are selling. As mentioned previously, the women are only farming an average of 2.25 acres, of which approximately half of the yield is kept for home consumption¹⁹⁵.

The following table provides a snapshot of the types of crops 49 BeadforLife members planted in one season, the average yields, and how well the crops performed¹⁹⁶. As indicated in the table, most of the harvests were considered of “poor” or “fair” quality, and the yields were quite low both in terms of the ability to provide household food security and in terms of marketing.

Table 3: Crop Survey Data

Type of Crop	Percentage of women who planted	Average # of acres planted	Average yield per acre (in kilos)	Average yield (according to # of acres planted)(in kilos)	Percentage of poor harvests	Percentage of fair harvests	Percentage of good harvests**
Maize	100%	0.86	122	104	35%	41%	16%
G-Nuts	94%	0.63	117.5	74	50%	41%	1%
Sweet Potatoes*	76%	0.51	N/A	N/A	N/A	N/A	N/A
Beans	55%	0.34	77.7	26.4	37%	22%	37%
Cassav	45%	<0.25	N/A	N/A	N/A	N/A	N/A

¹⁹⁴ Bulamagi VSLA; Iganga. August 7, 2013. Focus Group.

¹⁹⁵ McKenna, K. “Agribusiness in Iganga”. December 2012. Survey.

¹⁹⁶ Data for the table from: Kyomuhendo, R. and Naaya, E. “Post Harvest Survey 2”. August 2013. Survey.

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* Not yet harvested at the time of survey

** Some respondents didn't report the quality of their harvest; percentages may not add up to 100

Additionally, women face a number of social constraints when it comes to marketing. Gender roles are fairly rigidly defined when it comes to marketing produce. It is generally accepted that women will sell small amounts of sweet potatoes or cassava directly from the garden in order to provide for the household. Sweet potatoes and cassava are viewed as “women’s crops”, whereas crops that might generate any sort of significant income, like coffee, sugarcane, and even maize and g-nuts, are more typically marketed by men¹⁹⁷. Throughout the research process, men and women alike emphasized the fact that men are the ones in charge of selling crops. The following snippet from an interview with a g-nut buyer in Iganga market captures this view:

Researcher: “Please describe how you source your g-nuts.”

Respondent: “Those in farming villages bring their g-nuts here.”

Researcher: “Men or women?”

Respondent: “Men.”

Researcher: “Why men?”

Respondent: “Men have strength to look for markets.”

Researcher: “Why don't women have enough strength to look for markets?”

Respondent: “Men and women do crop farming together. Wives ask their husbands to look for the markets.”¹⁹⁸

¹⁹⁷ McKenna, K. “Agribusiness in Iganga”. December 2012. Survey.

¹⁹⁸ G-nut buyer; Iganga Market. June 4, 2013. Personal Interview.

This interview, along with many others, demonstrates the deeply engrained cultural norm that men are in charge of marketing, and that some women may in fact *want* their husbands to be the ones to market.

While many interviewees emphasized the importance of getting women involved in marketing, a large number of respondents seemed happy with the status quo. A female maize buyer in Iganga town, for example, explained that her clients are mostly men because, “men have more responsibilities and are stronger to carry (the harvest). They are the overseers/caretakers of the home”¹⁹⁹. Others took a more cynical view, stating “men know where the markets are. That’s where the money is”²⁰⁰. Many respondents emphasized that women tend to spend more time engaged in agricultural labor, but men are the ones to reap the benefits since they are in charge of marketing. The coordinator for the Iganga District Farmer’s Association aptly pointed out, “women are mainly in production, men come for marketing. Our mommies and our sisters face these challenges; equitable participation in production needs to be advocated”²⁰¹.

While women face additional challenges to marketing due to gender norms, marketing is a difficult endeavor for small-scale farmers in Iganga regardless of gender. Rural infrastructure is exceedingly poor, making it difficult for farmers to access markets²⁰². Transport costs are high as a result of the inadequate infrastructure,

¹⁹⁹ Maize buyer; Iganga Market. June 4, 2013. Personal Interview.

²⁰⁰ Assistant Program Officer for the Hunger Project; Iganga. June 6, 2013. Personal Interview.

²⁰¹ John (Coordinator, Iganga District Farmer’s Association); Iganga. July 16, 2013. Personal Interview.

²⁰² Muhwezi, Pontian (Chief Program Officer of the United Nation’s International Fund for Agricultural Development); Kampala. June 24, 2013. Personal Interview.

particularly poor rural feeder roads²⁰³. Perhaps one of the largest challenges facing farmers in Iganga is the lack of cooperatives designed to fulfill the needs of small-scale farmers. According to Dr. Elepu, the tendency for small-scale farmers to market alone is due to government policies. The Ugandan government feared farmers would organize against them, so they discouraged the set-up of farming cooperatives. The cooperatives that did exist often cheated small farmers and left them worse off than if they had marketed individually²⁰⁴. Members bulked their produce, then the cooperatives collapsed and people lost out²⁰⁵.

Once again, gender plays a role in the formation of cooperatives. Based on the two focus groups conducted for male and female farmers, it was clear that the male farmers had better access to resources and knowledge to form farming cooperatives than the female farmers. The male farmers in the focus group had taken part in establishing 6 farming associations with 30 members each. They had clear-cut goals for each of the members and a plan for growing maize, g-nuts, and cattle for a collective market. Ultimately, they hoped to market large quantities of crops and potentially access markets beyond Uganda's borders. Some of the men who were originally involved in forming the farming associations had traveled to Luwero, a distance of about 113 kilometers from Iganga, to learn about the organizational structure of farming associations already in

²⁰³ Elepu, Gabriel (Makerere Professor, Faculty of Agriculture); Kampala. July 2, 2013. Personal Interview.; John (Coordinator, Iganga District Farmer's Association); Iganga. July 16, 2013. Personal Interview.

²⁰⁴ Elepu, Gabriel (Makerere Professor, Faculty of Agriculture); Kampala. July 2, 2013. Personal Interview.

²⁰⁵ John (Coordinator, Iganga District Farmer's Association); Iganga. July 16, 2013. Personal Interview.

existence²⁰⁶. While the women expressed some interest in forming a cooperative and marketing produce in groups, they had very little idea of what this group might look like and clearly did not have access to the same type of information that members of the male farmers focus group did²⁰⁷.

While some improvements have been made today, farmers still have an individual attitude and are wary of joining farming cooperatives. They are not able to tap larger markets for better prices as individuals due to low yields and lack of capital for transport costs, etc.²⁰⁸. The Coordinator for the Iganga District Farmer's Association argues that this individual attitude is a problem not just among farmers, but among all of the actors in the agricultural production chain – from input suppliers to farmers to traders. Each of these actors only looks at their small portion of the agricultural production chain, resulting in bad relationships²⁰⁹. In order to improve the agricultural process as a whole, these actors need to harmonize their end goals.

One piece of the agricultural production chain that is mostly removed from female farmers in Iganga is value addition or post harvest production. Most of the women sell their crops without adding any additional value. For example, none of the women who participated in the “Agribusiness in Iganga” survey were using maize mills for commercial purposes. One woman was frying g-nuts before selling them in her vegetable

²⁰⁶ Male Farmers; Iganga. July 9, 2013. Focus Group.

²⁰⁷ Female Farmers; Iganga. July 8, 2013. Focus Group.

²⁰⁸ John (Coordinator, Iganga District Farmer's Association); Iganga. July 16, 2013. Personal Interview.

²⁰⁹ Ibid.

stand, but most of the women were selling g-nuts raw and unpackaged²¹⁰. More commonly, women sell small amounts of produce and other goods at small stands near (or at) their homes. Such stands are the most common source of income for women in the BeadforLife Iganga program after agriculture and animal rearing²¹¹. Women often sell mukene, g-nuts, rice, or other small items in these stands as well. It was difficult to get an accurate idea of how much income women earn from these stands, as few of them keep records of their expenditures and profits. Of the 12 women who own vegetable stalls, only 2 were able to break down their expenditures and profits per item. Here is a sample breakdown from one of the woman’s vegetable stalls:

Table 4: Income per Week from Vegetable Stall

Item	Purchase Price	Selling Price	Profit (Per Week)
Tomatoes	13,000 UGX	20,000 UGX	7,000 UGX
Eggplant	3,000 UGX	10,000 UGX	7,000 UGX
G-Nuts	5,000 UGX	10,000 UGX	5,000 UGX
Mukene	17,000 UGX	25,000 UGX	8,000 UGX
			Total: 27,000 UGX

Household Food Security versus Marketing

Once concern that continually came up during this research project was the advisability of marketing given the serious food security concerns most households in Iganga face. The original purpose of this study was two-fold: first, to determine the challenges small-scale women farmers in Iganga face in attaining household food security, and second, to determine the challenges small-scale women farmers in Iganga

²¹⁰ McKenna, K. “Agribusiness in Iganga”. December 2012. Survey.

²¹¹ Ibid.

face in generating sustainable incomes through agriculture. In most cases, the challenges women face affect both their ability to achieve household food security and attain sustainable income generation. For example, lack of access to land means that a woman can neither grow food for household food security purposes nor for marketing purposes. Better access to markets, however, may ultimately be detrimental to achieving household food security.

Based on research reported in the previous section, some challenges primarily affect women's ability to engage in small-scale agriculture for income-generating purposes, while others affect both income-generation and household food security. Lack of access to capital, for example, has a heavy influence on both food security and income generation. Without capital, women cannot purchase the necessary inputs to farm successfully for either purpose. Lack of access to improved agricultural technologies, on the other hand, may have a stronger influence on women who are engaged in agriculture for commercial purposes. While improved agro-inputs undoubtedly reduce labor and increase yields, they are not always necessary for women who are farming solely for household food security purposes, since this type of farming can be done on a small scale with less inputs. Improved agricultural inputs are arguably becoming more important even for food security purposes, however, due to the increased need to intensively farm small pieces of land on account of population growth. Lack of access to land seriously affects both farming for marketing and household food security. Farming for household food security requires less land, however, many female farmers are struggling to find even enough land to farm and feed their families. Access to markets clearly affects women who are interested in agriculture for income-generation substantially more than

women who are farming for food security purposes. Each of these challenges affects farming for food security and income-generation, and organizations should be careful to identify whether their goal in addressing these challenges is to improve women's access to various inputs for household food security purposes or income-generating purposes, or both.

Members of the female farmer focus group continually emphasized the importance of planting enough food for home consumption before going to market²¹². As one woman stated, “we would like to have food security first, in turn you get something else to add. Children won't go into theft of other people's property if you have food security”²¹³. While most women reported selling at least a portion of their crops (95% according to one survey²¹⁴), respondents cited the negative consequences associated with focusing too much on marketing and not enough on household food security²¹⁵.

According to the translator for the Bulamagi focus group, most of the households in the group have very limited food sources. They divide these limited resources between home use and selling, and end up having shortages at home as a result²¹⁶. Concerns over food insecurity were widespread when respondents were discussing the pros and cons of growing cash crops, particularly sugarcane. As one participant in the male farmers focus group stated, “you may get a lot of money from sugarcane, but your land will be taken

²¹² Female Farmers; Iganga. July 8, 2013. Focus Group.

²¹³ Ibid.

²¹⁴ McKenna, K. “Agribusiness in Iganga”. December 2012. Survey.

²¹⁵ Ibid.

²¹⁶ Bulamagi VSLA; Iganga. August 7, 2013. Focus Group.

over for five years. Where are you going to grow food for your family?²¹⁷” The Coordinator for NAADS Northern Division in Iganga explained, “when farmers are food insecure, they spend too much time looking for food security at the expense of everything else²¹⁸”. He stressed the point that income does not equal food security – market conditions are unpredictable, and it is more important for households to have food from their gardens than income from marketing their harvests²¹⁹.

The following table provides an overview of the information gathered in a survey conducted among BeadforLife members in March. As evidenced by the table, yields per acre were low for each of the three crops planted. The women did not even harvest one full bag (100kg) of either beans or g-nuts. The women who sold a portion of their harvest earned between 31,176 UGX and 138,600 UGX per crop. Considering the cost of inputs, the intensive labor involved in crop agriculture, and the efforts involved in marketing this produce, these are very low incomes. Based on information in this table, it seems unlikely that women in Iganga are either attaining household food security or generating sustainable incomes through small-scale agricultural production.

Table 5: Survey Overview

Crop Type	Maize	Beans	G-Nuts
Number of Women who Planted (out of 46)	31 women	10 women	12 women
Number of Acres Planted	1.1 acres	0.675 acres	1.0

²¹⁷ Male Farmers; Iganga. July 9, 2013. Focus Group.

²¹⁸ Sam (Coordinator, Northern Division, National Agricultural Advisory Services); Iganga. July 17, 2013. Personal Interview.

²¹⁹ Ibid.

Yield per Acre	286 kilograms	61 kilograms	74 kilograms
Selling Price	700 UGX per kilo	750 UGX per kilo	866 UGX per kilo
Number of Kilos Sold (Average)	198 kilograms	73 kilograms	36 kilograms
Average Income*	138,600 UGX	54,750 UGX	31,176 UGX
Average Income per Acre **	200,200 UGX	45,750 UGX	64,084 UGX
Number of Women who Kept for Home Consumption	15 women	7	4 women
Number of Women who Sold a Portion	16 women	3	5 women
Portion of Harvest Sold	All: 1 2/3: 2 1/2: 9 1/3: 2 1/4: 1	All: 2 3/4: 1	All: 1 3/4: 2 1/2: 1 1/4: 1
Harvest Month	October: 1 November: 6 December: 15 January: 4 February: 2 No Harvest: 2	October: 2 November: 2 December: 4 January: 1 February: 1	October: 1 November: 5 December: 3 January: 1 No Harvest: 2
Selling Month	December: 2 January: 6 February: 8	Not enough information.	January: 2 February: 2
Where Sold	Traders: 12 Maize Mill: 2 School: 1 Iganga Market: 1	Her Shop: 1 To Husband: 1 No Info: 1	Traders: 4 Shops: 1 ²²⁰

*Average Income is calculated by multiplying the average number of kilos sold by the average selling price per kilogram.

** Average Income per Acre is calculated by multiplying the average yield per acre by the average price per kilogram.

NB: All averages are calculated by dropping the highest and lowest figures.

²²⁰ Number from this table gathered from results of McKenna, K. "Post Harvest Survey". March 2013. Survey.

Lack of Access to Human Capital (Health and Education)

Interestingly, despite the heavy emphasis on a lack of human capital (primarily health and education) as major constraints to women's successful participation in small-scale rural agriculture among secondary source research, very few survey respondents, interviewees, or focus group participants listed these as limiting factors in agricultural production during research. Whether this indicates that a lack of social capital isn't as large an issue as initially presumed, or whether the connection between low levels of social capital and low levels of agricultural production simply isn't widely recognized is undetermined. Based on various observations and interviews, the research indicates that lack of social capital is in fact a serious issue for agricultural development, but that women themselves do not view it as such. They are more focused on education as a means for their children to pursue jobs outside the agricultural sector, rather than improving their own agricultural production through further education. This section relies primarily on firsthand observations on the part of the researcher.

As far as healthcare is concerned, most women in rural areas cannot afford to seek treatment for either themselves or their children. Women who live closer to town may be able to access the government hospital, where treatment is "free", but the lack of doctors, nurses, equipment, and medication makes this an unappealing alternative to waiting out most illnesses at home. Long term healthcare issues like HIV often go undiagnosed or untreated for economic reasons. The social stigma surrounding HIV, particularly for women, increases the likelihood that women will not get tested and/or treated. As mentioned in an earlier chapter, HIV rates are high in Iganga due to its location on a major highway between Nairobi and Kampala, the capital cities of Kenya and Uganda.

HIV poses many complications for women involved in agriculture, especially when left untreated. HIV+ women are at a higher risk of contracting secondary infections due to suppressed immune systems and have lower energy levels, both of which are detrimental to their ability to engage in demanding agricultural labor. Other infections, such as hookworm and chiggers, are easily picked up in the gardens since most women work without shoes or boots. Malaria is another common illness in the Iganga area that seriously affects agricultural productivity.

In all of the interviews conducted, only two interviewees noted the importance of health as it related to agriculture. The first, an Assistant Program Officer for the Hunger Project in Iganga, stated, “agriculture goes hand in hand with women’s health. Women need more access to reproductive health and nutrition trainings”²²¹. This response touches on an important point regarding women’s access to reproductive health information, which is generally very limited. Many NGOs, including BeadforLife, try to provide some type of reproductive health access to the women they work with, but the social stigma surrounding contraceptives is high and many women can’t or won’t seek access to them as a result. The second interviewee, a staff member of BeadforLife, noted that “if the woman misses the garden because a child is in the hospital, it jeopardizes success”²²². She emphasized the need for preventative measures rather than a focus on curing women and their families after they are already sick. She listed sleeping under mosquito nets, deworming tablets, proper nutrition, clean water, sanitation, good pit latrines, rubbish pits,

²²¹ Assistant Program Officer for the Hunger Project; Iganga. June 6, 2013. Personal Interview.

²²² Kyomuhendo, Rovienah and Naaya, Esther (Staff, BeadforLife Iganga); August 22, 2013. Group Interview.

and bathing areas as key factors in preventing many common illnesses and ailments in Iganga²²³. Overall, while the importance of better health and nutrition is widely recognized as a valuable goal, good health is rarely tied to better agricultural productivity.

The same generally goes for education. This is not to say that people in Iganga are uninterested in educating their children, simply that there isn't a strong argument being made that education could benefit agricultural production and income generation. Perhaps there are other factors, like access to land or improved agro-inputs that are more important to the final outcome. Dr. Walekwa, for example, specifically stated that he does not think illiteracy is a big bottleneck for small-scale female farmers. Other issues, like forming cooperatives in order to access markets for better prices, are far more pressing²²⁴. Most of the female farmers in Iganga received very little schooling, at best a few years of secondary school. Their literacy and numeracy skills are generally very low, making it difficult to keep accurate agricultural records. According to the first survey conducted, BeadforLife members spent an average of 284,354 UGX per acre (including costs for renting land, clearing weeds, and purchasing agrochemicals, seeds, and other inputs), but only earned an average of 2,000 UGX (less than 80 US cents) per season²²⁵. After learning more about the social norms surrounding agricultural purchases and marketing, it is likely that women did not have accurate figures since men are mostly in charge of monetary issues. While low levels of human capital may not be the primary

²²³ Ibid.

²²⁴ Walekwa, Peter (Makerere Professor, Faculty of Agriculture); Kampala. June 24, 2013. Personal Interview.

²²⁵ McKenna, K. "Agribusiness in Iganga". December 2012. Survey.

challenge for women interested in engaging in small-scale agriculture for household food security or income generation, the fact that women have such difficulty accessing healthcare or education is in some ways reflective of the social status women hold in Iganga.

Social Norms and Roles for Women

Social norms and roles for women in Iganga are fairly clear-cut and it can be risky for women to alter these norms. Women are expected to fulfill many roles in the household – they cook, clean, care for the children and livestock, and provide for household food security through farming. These obligations leave little time for other income generating activities, and little time to expand their agricultural production for marketing purposes. From an economic perspective, women rarely own productive assets. If women are engaged in income generation, it is typically on a small scale (such as selling sweet potatoes from the garden). The male head of the household is characteristically in charge of generating monetary income through crop farming or another endeavor like brick making. Social pressure and other factors, like time constraints and a lack of social capital, discourage women from trying to earn an income through agriculture or other businesses. However, respondents throughout the research process emphasized that these social norms are shifting to some extent. Respondents indicated that women are becoming more involved in household economic decisions and income generation in Iganga and elsewhere in Uganda.

According to Patricia Kampire, a staff member of USAID’s Community Connector program, there are three fundamental questions you should address when conducting a gender analysis. First, who does what, when, and where? Second, who has

access and control of resources? Third, what roles do men and women play in their productive, reproductive, and community work? Productive work refers to work that has a market value. Reproductive work refers to household tasks like childcare and cooking. Community work refers to jobs associated with community functions like weddings and funerals²²⁶. This section will highlight relevant aspects of these questions as they relate to gender roles in Iganga, particularly in respect to agricultural production.

First, who does what, when, and where? To put it simply, women are responsible for growing food crops for home consumption, and men are in charge of cash crops and other income generating activities²²⁷. Women stay near their homes to engage in agriculture, while men are more likely to travel for their work. According to the Animal Husbandry Officer for NAADS in Iganga, “men are business people. They wake up and go to towns to do business. Their roles are centered around looking for money. The roles of women are bigger in farming because men are also involved in other activities like shop-keeping”²²⁸. From the researcher’s observations, this is often true. Most women spend significantly more time farming near their homes than men. Men travel much more frequently than women, often to town to engage in some type of business like driving a bicycle taxi. According to the male farmers focus group, men engage in different types of economic activities than women. Some income generating activities listed among the group include brickmaking, rearing cattle, digging, breaking stones into concrete,

²²⁶ Kampire, Patricia (Staff Member Community Connector Program, USAID). August 5, 2013. Personal Interview.

²²⁷ Ibid.

²²⁸ Kagoda, Sam (Animal Husbandry Officer, National Agricultural Advisory Services); Iganga. July 25, 2013. Personal Interview.

roofing, building houses, carpentry, and using a bicycle to transport people's luggage²²⁹. Women's activities center more around the household, and include jobs like preparing food for their families, childcare, rearing small livestock like chicken and goats, and digging in gardens near their homes²³⁰.

Men also engage in agricultural work, but their roles sometimes differ from female roles. According to general consensus among focus group participants in Buligo, men are in charge of clearing the bush, both men and women dig the garden, men spray pesticides, women weed, men dig trenches, both men and women harvest, women are in charge of post-harvest handling, and selling is for men. The focus group participants seemed highly entertained about the last point (that men are the ones in charge of selling)²³¹.

The types of crops men and women grow can differ as well. As one participant in the male farmer focus group stated, "wives are primarily responsible for food security. Women are good at growing sweet potatoes. Husbands grow crops for commercial purposes"²³². Women are viewed as incapable of growing crops on a large scale. According to a man at the maize mill in Iganga, "men can do crop farming because they are strong enough. Very few women can manage to do crop farming. They can manage if they have money to hire labor, but not on their own"²³³. Some crops, like maize, are

²²⁹ Male Farmers; Iganga. July 9, 2013. Focus Group.

²³⁰ Female Farmers; Iganga. July 8, 2013. Focus Group.

²³¹ Buligo VSLA; Iganga. July 25, 2013. Focus Group.

²³² Male Farmers; Iganga. July 9, 2013. Focus Group.

²³³ Maize buyer; Iganga Market. June 4, 2013. Personal Interview.

considered both a food crop and a cash crop. According to Dr. Walekwa, crops like maize, g-nuts, beans, and rice are where women have the potential to earn income because they are not distinctly defined as male or female²³⁴. Other crops, like coffee, are clearly defined as a cash crop and seen as male crops, despite the fact that women often provide the vast majority of labor to grow the coffee. The idea that coffee belongs to men is very pervasive. In a meeting among coffee stakeholders in Mayuge, a neighboring district of Iganga, the participants engaged in a long discussion about the importance of sharing the profits from coffee selling with your wife, otherwise you risk her “stealing” coffee or not looking after it the next season. One of two women present at the meeting spoke up, saying “when men market coffee, they eat the money alone. How can we be stealing our own coffee?”²³⁵ The resulting discussion seemed to conclude with the idea that involving women in the coffee production process, including marketing, would increase production and was therefore desirable²³⁶. One man stated, “if you broke down the activities a woman does and compare them to yours (referring to the men in the group), you shouldn’t be giving her such little money²³⁷”. While discussions like these provide some indication that attitudes toward sharing resources are changing, the majority of women in Iganga still lack control or ownership of productive resources.

²³⁴ Walekwa, Peter (Makerere Professor, Faculty of Agriculture); Kampala. June 24, 2013. Personal Interview.

²³⁵ Coffee Stakeholders, Mayuge. July 30, 2013. Group Interview.

²³⁶ Ibid.

²³⁷ Ibid.

Men own and control most aspects of the agricultural production process – from land to agro-inputs like fertilizers and spray pumps to the bicycles used for transporting harvests. In addition, they control any significant profits earned from agriculture since they are the ones to market. Many respondents reiterated the idea that women are more likely to invest profits in their families while men are more likely to spend it on themselves. One respondent claimed, “When you empower a woman, you empower the whole community. You give a man money, he goes to a bar”²³⁸. Since Iganga is heavily polygamous, men may also be inclined to marry more women out of social obligation if they can earn enough money. It is not uncommon for men to have three or four homes, each with a different wife²³⁹. According to USAID staff member Patricia Kampire, “men have the authority and power to use money however they want. Women do all the work and don’t benefit in the end. If we are going to make communities food secure, we have to implement through women²⁴⁰”.

Environmental Factors

Women and men alike have to cope with natural factors that influence farming. Small-scale farmers in Iganga face a host of environmental challenges, especially with recent climate changes. Seasons in Iganga used to be fairly predictable. People could somewhat accurately forecast when the rains would come, how long they would last, and when the best times to plant were. Today, unpredictable weather patterns create serious

²³⁸ Assistant Program Officer for the Hunger Project; Iganga. June 6, 2013. Personal Interview.

²³⁹ Kagoda, Sam (Animal Husbandry Officer, National Agricultural Advisory Services); Iganga. July 25, 2013. Personal Interview.

²⁴⁰ Kampire, Patricia (Staff Member Community Connector Program, USAID). August 5, 2013. Personal Interview.

issues. Erratic weather events like floods and hailstorms devastate crops²⁴¹. Agriculture is becoming an increasingly risky endeavor as climate change continues to affect production²⁴². Jakob, the Coordinator for NAADS in Iganga District, says there have been significant changes to weather patterns in the last five years. He suggests the need to utilize underground water sources and swamps rather than rely on natural rainfall for irrigation²⁴³. John, the Coordinator for Iganga District Farmer's Association, says small-scale farmers are at the "mercy of the weather". People used to rely on the season beginning in February, now it might not begin until April²⁴⁴.

Excessive rains cause farmers to plant too late or too early, seriously affecting total outputs²⁴⁵. As one participant in the Buligo focus group stated, "changes in the season are difficult. You are hoping it will rain and it doesn't rain²⁴⁶". 62 percent of the women who participated in the first survey cited drought as the most significant challenge they faced in the preceding season²⁴⁷. 60 percent of the women who participated in the third survey again reported drought or "too much sunshine" as the

²⁴¹ Muhwezi, Pontian (Chief Program Officer of the United Nation's International Fund for Agricultural Development); Kampala. June 24, 2013. Personal Interview.

²⁴² Elepu, Gabriel (Makerere Professor, Faculty of Agriculture); Kampala. July 2, 2013. Personal Interview.

²⁴³ Jakob (Coordinator, Iganga District, National Agricultural Advisory Services); Iganga. July 16, 2013. Personal Interview.

²⁴⁴ John (Coordinator, Iganga District Farmer's Association); Iganga. July 16, 2013. Personal Interview.

²⁴⁵ Coordinator Central Division, National Agricultural Advisory Services; Iganga. July 30, 2013. Personal Interview.

²⁴⁶ Buligo VSLA; Iganga. July 25, 2013. Focus Group.

²⁴⁷ McKenna, K. "Agribusiness in Iganga". December 2012. Survey.

most significant challenge²⁴⁸. Participants in the Bulamagi focus group noted that their “maize was highly tortured by sunshine” and didn’t come out well²⁴⁹. Heavy downpours have also created issues with soil erosion. Excessive rain can wash away seeds if it happens too soon after people plant²⁵⁰. While there is nothing farmers can do to alter weather patterns, the effects of extreme seasons could be mitigated through better technologies. At a government level, more effort could be dedicated to addressing the effects of climate change on agriculture. Research on adaptation and mitigation measures for climate change will become increasingly important as weather patterns continue to shift²⁵¹.

Farmers face other environmental challenges like pests and diseases in addition to the unpredictable weather. Many respondents cited a weed known as Kayongo as a major issue for maize crops. One participant in the male farmers focus group said Kayongo is “profoundly affecting farming”, while a participant in the female farmers focus group noted that Kayongo is “very disastrous” for farming²⁵². Insects and rodents present further challenges. One interviewee was especially exasperated with the rodents, saying,

²⁴⁸ Kyomuhendo, R. and Naaya, E. “Post Harvest Survey 2”. August 2013. Survey.

²⁴⁹ Bulamagi VSLA; Iganga. August 7, 2013. Focus Group.

²⁵⁰ Ibid.

²⁵¹ Fortin, Corey (Agricultural Officer, USAID); Kampala. July 19, 2013. Personal Interview.

²⁵² Male Farmers; Iganga. July 9, 2013. Focus Group.; Female Farmers; Iganga. July 9, 2013. Focus Group.

“we are being beaten up by these moles²⁵³”. Termites also create serious issues for farmers in Iganga²⁵⁴.

After analyzing the information gathered during this research project, it is clear that women in Iganga face a number of serious challenges to engaging in small-scale rural agriculture at a level that will allow them to provide household food security and generate income for sustainable livelihoods. Women lack access to sufficient capital, whether through commercial banks, microfinance organizations, or VSLAs. Lack of capital prevents women from investing in necessary inputs like land, seeds, labor, and technology. Women face other challenges in accessing improved agro-inputs, including social stigmas against women using technology and a lack of control over resources. The inability to access and use improved agro-inputs seriously decreases yields and leaves women more exposed to damage from external factors like climate change.

Further, women have difficulties accessing land to plant on. Economic constraints and social barriers to land ownership make it tough for women to purchase, rent, or even inherit plots of land. Even if women are able to successfully cultivate enough produce to sell a portion of the harvest, they lack access to proper markets for their goods. Most women are forced into selling produce to traders who move around the villages due to transport costs and social norms that prevent women from traveling to larger markets. Low levels of human capital, particularly health and education, decrease productivity among female farmers in Iganga. Social roles and expectations for women leave little

²⁵³ Primary School Agriculture Teacher; Iganga. August 7, 2013. Personal Interview.

²⁵⁴ Bulamagi VSLA; Iganga. August 7, 2013. Focus Group.

time or place for women to engage in agricultural production for any purpose other than household food security. Finally, erratic weather patterns including extreme drought, hailstorms, and floods, can destroy already fragile crops. The following chapter will present a discussion of these issues and seek out possible solutions.

CHAPTER SIX: DISCUSSION/CONCLUSION

The research and analysis presented in this paper largely confirms existing theories on women's participation in small-scale rural agricultural development. The present findings will be addressed here first in the broad context of the conceptual orientations used to shape this project: sustainable livelihoods, gender and development, and food security. Second, the chapter will turn to a brief overview of each of the eight key challenges women face in generating sustainable livelihoods for themselves and their families and how these challenges relate to the economic, political, social, and aid-related factors discussed previously. Third, the author will offer programmatic recommendations designed to address these challenges and improve women's successful participation in agricultural production in Iganga. Finally, this chapter will include brief discussions of research limitations and recommendations for future research.

Conceptual Orientations

Three conceptual orientations were discussed in the beginning of this analysis – sustainable livelihoods, gender and development, and food security. These three orientations helped shape the research process and provided a framework for analysis. Ian Scoones' definition of sustainable livelihoods provided a helpful starting point for analyzing whether or not small-scale female farmers in Iganga were achieving “sustainable livelihoods” through agriculture. To reiterate his definition,

A livelihood comprises the capabilities, assets (including both material and social resources) and activities required for a means of living. A livelihood is sustainable when it can cope with and recover from stresses and shocks, maintain or enhance its capabilities and assets, while not undermining the natural resource base²⁵⁵.

While many women in Iganga have some access to the capabilities, assets, and/or activities required for a means of living, it quickly became clear to the researcher that this access was less than sufficient to meet the second part of the definition – recovery from stresses and shocks and maintenance or enhancement of capabilities and assets without undermining the natural resource base. Most small-scale female farmers in Iganga have limited access to resources, whether in the form of land, capital, or other inputs, and they are typically scraping by from one season to the next. They are lucky if they manage to maintain their capabilities and assets, much less enhance them. Shocks and stresses, such as severe weather events, illnesses, and family events make it difficult for women to successfully engage in agriculture for either food security purposes or for income generation, though their resilience and ability to cope with shocks is remarkable.

Christine Okali's points in her expert paper for UN Women neatly summarize the role of women in agricultural development and reflect much of the current thinking in this field²⁵⁶.

- Women undertake the majority of agricultural work in addition to domestic or reproductive work and have limited control over their own labor.

²⁵⁵ Scoones, I. "Sustainable Rural Livelihoods: A Framework for Analysis", Working Paper 72, Institute of Development Studies 1998.

²⁵⁶ Okali, C. "Achieving Transformative Change for Rural Women's Empowerment", Expert Paper, UN Women; Enabling Rural Women's Economic Empowerment: Institutions, Opportunities, and Participation, Accra, Ghana, Sept. 2011.

- Women are altruistic, putting their children and household food security first, engaging in food crop production for subsistence using unimproved technology.
- Women's work burdens have increased following the out-migration of men seeking other income earning opportunities, and as access to water and fuel has deteriorated with environmental change.
- Women lack secure access to land and are unable to provide the collateral that would secure access to credit for their independent agricultural activities. They are also ignored by some service providers.
- Women have limited control over the outputs from their labor and therefore lack incentives to increase their production.

Okali's points were often accurately reflected and visible on the ground in Uganda. The research presented here demonstrates that women do indeed undertake the majority of agricultural work, put their children and household security first, lack collateral for credit, and have limited control over their outputs. Overall, observations and research from this project support the current thinking in gender and agricultural development as reflected in Okali's summary.

The third conceptual orientation used in this research is food security, defined by the WHO as existing "when all people at all times have access to sufficient, safe, and nutritious food to maintain a healthy and active life"²⁵⁷. Field research demonstrated that small-scale female farmers in rural Iganga are not meeting these standards on a consistent basis. Women face a myriad of challenges in producing sufficient agricultural outputs for household food security, including lack of access to capital, agricultural inputs, land, markets, health, education, and more. Many women resort to growing crops with little nutritional value due to their low cost and easy availability. Typical households in Iganga eat one to two meals a day and these meals are rarely nutritious. Most meals center around a starch such as rice or potatoes. Protein is rarely consumed, and vegetables are

²⁵⁷ "Trade, Foreign Policy, Diplomacy, and Health" WHO, 2013. www.who.int/trade

largely unavailable or eaten in small portions. These three conceptual orientations help highlight the fact that women in Iganga are not currently able to create sustainable livelihoods from agricultural production, nor are they producing sufficient amounts of food (particularly nutritious food) to ensure household food security for large families. By these definitions, women in Iganga reinforce the notions Okali presents in her research and face many challenges in small-scale rural agricultural development for the purposes of achieving household food security or income-generation.

Key Factors

Lack of Access to Capital

The first major constraint small-scale female farmers face in Iganga is a lack of access to capital. Without capital, women are unable to purchase or rent land, buy agricultural inputs like seeds and fertilizer, hire labor, or transport their goods to markets. Social norms and expected gender roles play an important role in women's lack of access to capital. Men are typically in charge of monetary matters in Iganga households. This means women lack the collateral necessary to take out loans, either from commercial banks or from microfinance institutions. Men also face difficulty accessing loans from these sources due to insufficient collateral or the unavailability of agricultural loans, but many men have turned to VSLA groups as a source of capital for farming. Women also participate in VSLAs, but it is complicated for them to join VSLAs for social reasons. Women have relatively restricted movement, meaning not only do they earn less (if anything) from casual day labor than men, but they may have trouble even attending VSLA meetings.

As with the rest of the challenges outlined in this study, there is no easy fix to the lack of capital access women face in Iganga. Commercial banks are an unrealistic source of capital for many reasons. They rarely offer agricultural loans due to the high risk nature of rural agricultural production. They often require that customers keep a certain amount of money in their accounts, which is prohibitive for women who don't have any assets. They require signatures for withdrawals, which is problematic for illiterate women. Finally, they are usually located in city centers, which are inconvenient for women to travel to. Microfinance organizations, while designed to eliminate many of these issues, still present problems for women who are unable to travel long distances for banking. VSLAs are likely the most realistic source of capital for women in rural settings. They meet in locations near women's homes, require more realistic monetary contributions, and are fairly socially accepted for women to join.

Currently, BeadforLife partners with a microfinance bank in Iganga that does not require literacy or have a minimum deposit requirement. The bank does not provide loans, but it does help the women put their money in a secure location and encourage savings. BeadforLife might help women to set up their own VSLA in order to facilitate small amounts of credit. They could set it up in such a way that savings sharing coincides with agricultural seasons as opposed to most of the VSLAs that share near the holidays.

Lack of Access to Improved Agro-Inputs

Economic and social factors in Uganda make it difficult for women to access agricultural inputs like seeds, fertilizers, ox plows, and other technologies that would reduce the burden of labor and increase yields. From an economic perspective, most women do not have the capital to purchase agricultural inputs, particularly higher

technology inputs. From a social perspective, high levels of population growth have led to increased population density and the need to farm smaller pieces of land more intensively. Further, men have greater access to agricultural inputs both for economic and social reasons. This is particularly true for higher technology inputs. Men are the first ones to start using labor saving technologies like ox plows, while women continue to rely on basic hand hoes for clearing land.

BeadforLife currently addresses the issue of lack of access to agricultural inputs in a few ways. First, they bring in agricultural experts to educate women in the program about new inputs and their use. Unfortunately, these experts are often from larger organizations in Kampala who have unrealistic expectations about the women's access to financial resources and land. They therefore provide information about what inputs the women should purchase in an ideal situation, rather than the inputs they can realistically afford. It is important to conduct a cost benefit analysis of new inputs before recommending their use.

Second, BeadforLife helps source inputs for women in the group. They purchase inputs like improved seeds, pesticides, and fertilizers in bulk and then sell them to the women at the office in Iganga. This system allows BeadforLife to purchase products in larger amounts from more reputable organizations than the women have access to. Further, it encourages women to try improved products that could significantly increase their agricultural yields. However, the market for fake or substandard agricultural products in Uganda is overwhelming, and even purchasing from a reputable supplier does not guarantee the quality of a product. This became evident one season during the research project when BeadforLife purchased improved g-nut seeds from a company that

ended up having a very low germination rate. Additionally, this system of supplying agricultural products only works in the short term. Women are left to source their own products after their 18 month enrollment in the program is over.

Two important solutions present themselves here. First, organizations like BeadforLife should focus on finding educators who are savvy with the on the ground farming situation in Iganga. Technical experts can provide useful information, but they are often too scientifically focused and they present information about products as they are used in ideal greenhouse growing circumstances. Bringing in experts who understand how agricultural products function in real situations would be more beneficial to the women. Second, BeadforLife should work to establish ties with a reputable agricultural inputs dealer in Iganga where the women can source their own inputs after the close of the program. USAID's agricultural inputs program is currently working to establish ties with agro-input dealers in Iganga who supply quality products to farmers. BeadforLife could benefit from a partnership with this organization. These two solutions could help improve women's long term access to quality agricultural inputs that are cost-effective and practical for use in the Iganga area.

Lack of Access to Land

Economic, political, and social norms severely limit women's access to land in Iganga. Women generally lack the financial resources to purchase or rent land. While women legally have the right to purchase and own land, societal norms often outweigh legal rights and prevent women from accessing land. International organizations, NGOs, and activist groups are working to uphold the legal framework that allows women to purchase and own land, or to gain land ownership rights upon the death of a spouse.

However, cultural and societal norms hold precedence in most cases and women struggle to have autonomous, or even collaborative access to land. Women are therefore frequently confined to working on small plots of land that are owned and controlled by their husbands.

Land ownership and access issues pose a serious challenge for organizations like BeadforLife. The organization tried providing loans of 200,000 UGX one season for women to rent a one acre plot of land and purchase inputs to plant a half acre of g-nuts and a half acre of maize. The women in the program made serious efforts to follow through on this plan, but many had difficulty finding land to rent. Land that is available to rent is relatively scarce in Iganga, especially in the sub-counties near town. One of the typical solutions to this is to rent a number of small plots that collectively amount to one acre or more of land. The plots might be located long distances from one another, forcing women to travel between them and adding to the time spent in agricultural labor.

Clearly, providing financial assistance is not a sufficient solution to the issue of land access in and of itself. One potential solution would be for BeadforLife to expand their pilot demonstration plot project onto a larger scale. They could divide the women into three or four groups according to their geographic location, as was done for the demonstration plots, and facilitate a group farming project. Collectivization was frequently identified as the key component missing from BeadforLife's model among agricultural experts. Grouping the women together could allow better access to agricultural inputs, reduce the burden of finding useable land for each individual, and encourage collective marketing at a higher price.

Lack of Access to Markets

Women in Iganga have relatively constrained access to markets. Most women sell small amounts of produce directly from their gardens or homes to traders who move around the villages instead of transporting their goods to markets with higher purchasing prices. From an economic perspective, women cannot afford the transportation costs associated with taking their produce to larger markets, particularly due to their low yields. From a political perspective, the government has historically discouraged the formation of farming cooperatives, so there is little incentive to form a cooperative for marketing purposes, though this is changing today. From a social perspective, men are traditionally the ones in charge of marketing produce and it is risky for women to break this societal norm and enter into the marketing sphere.

BeadforLife has addressed the marketing issue largely from an educational perspective. They have encouraged women in the program to seek out better prices for their goods in town, but have not yet tried linking the women to any specific markets. Improving women's access to markets could dramatically improve their income generation potential. This could be achieved by first forming cooperatives among women in the group. The cooperatives could be centered around the previously mentioned group plots. Next, BeadforLife could help women identify markets in town where they could sell their produce. Alternatively, BeadforLife could try to copy the warehouse receipt system on a smaller, community level scale. The organization could identify a small warehouse where women could individually bring their produce for storage and collective sale. Collectivization is not a simple fix for women's lack of access to markets. It would require serious buy-in from all of the members involved as well as a great deal

of oversight by BeadforLife, especially in the initial phase. However, encouraging groups of women to work together may provide better opportunities not only for marketing, but for purchasing agricultural inputs and reducing individual labor.

Lack of Access to Human Capital (Health and Education)

Low levels of access to healthcare and education significantly impact women's ability to achieve sustainable livelihoods through agricultural production. Human capital factors are often overlooked by women themselves as important constraints to their agricultural production, however, the long-term effects of poor healthcare and low levels of education are substantial. Women in Iganga are subject to health problems including HIV/AIDS, malaria, hookworm, typhoid, and more. These health issues often go unaddressed because women can't afford to seek medical treatment, the government healthcare facilities are understaffed and under-resourced, and there are social norms prohibiting women from seeking treatment, especially for things like HIV/AIDS. Women are undereducated because their families can't afford to send them to school, government schools are again understaffed and under-resourced, and society prioritizes education of boys over girls, particularly after a primary school level. Low levels of education affect agricultural production because women cannot keep track of their expenditures and incomes, read directions on fertilizers and other agricultural products, or keep records of their yields.

BeadforLife addresses both healthcare and education as part of their program. They hold monthly or bimonthly lectures on different health topics – including sanitation, HIV/AIDS, malaria, and others. They bring in guest lecturers from hospitals and clinics to discuss the importance of maintaining good health, and they sell some health products

like mosquito nets and de-worming pills at the office. They also partner with a local clinic where women can receive free family planning methods, although social stigma prevents many women from utilizing this resource. BeadforLife has attempted to address the social stigmas surrounding HIV/AIDS and family planning by inviting the women's husbands to attend informational health sessions, but the turnout has been relatively low (typically only three or four men will participate). BeadforLife has also tried to offer literacy and numeracy training for women in the program. The program simply isn't long enough to fully address the low levels of education women typically come in with; however, and their literacy and numeracy skills are typically very limited even after these trainings. The program has had more success among groups in Kampala, where the women come in with higher levels of education on average.

Human capital improvement requires long-term investment of time and resources, making it difficult for an organization like BeadforLife to fully address these issues in a short 18 month program. The organization has focused, therefore, on health interventions that are realistic given the short time frame women are enrolled in the program. For example, they started a sanitation initiative encouraging women to build better pit latrines and install dish drying racks. A long term solution for improving both health and education might be to find other organizations in the Iganga area who are working on these issues and link the women to those programs. As a small NGO, BeadforLife does not have the capacity nor long-term involvement with the women necessary to substantially increase their levels of human capital. Linking the women with organizations that provide longer term assistance in these areas might be a good option.

Social Norms and Roles

To put it broadly, women's roles are centered around household activities like childcare, cooking, and farming for household food security purposes while men are in charge of economic activities like farming for marketing purposes and other income generating endeavors. Women have little control over economic resources, limited involvement in politics, and restrictive gender roles. Women are engaged in time intensive labor both at home and in the fields. They put in most of the agricultural labor for the household, but do not control the economic outputs from their labor. They are socially confined to household roles and have difficulty engaging in income generating activities, whether for agricultural production or alternative income generating activities.

Once again, it is difficult for an organization like BeadforLife to implement change in this area due to the long-term nature of the challenge. Cultural and social values are deeply ingrained in society and they are not going to change overnight. BeadforLife does try to address changing gender roles by inviting husbands to participate in informational sessions at the Iganga office. As with the health presentations, however, attendance is very low (with the exception of the first session where husband's participation and consent is required for women to join the program). Despite efforts to accurately inform the women's husbands about the purpose of the BeadforLife program, some husbands initially condone their wives' participation in the program only to later cause problems. Domestic violence is not an uncommon issue among women in the group as well as women in Iganga more generally. Access to financial resources can upset the expected power balance in a marriage and lead to domestic disputes. There are even cases where husbands will actively destroy the resources women use to make the

beads they sell. BeadforLife tries to address these instances on a case by case basis, but the issues are often difficult to follow up on. Women in these situations do not have the financial or social capital needed to leave their husbands in most cases, so the best solution might be to facilitate some kind of mediation. Continued sensitization about gender roles and expectations should continue to be an integral piece of the BeadforLife program.

Environmental Factors

Environmental challenges play an undeniable role in the challenges women face farming in Iganga. Recent climate change has created erratic weather patterns and made it difficult for women to know when to plant. Heavy rains, drought, and hailstorms destroy crops and threaten food security. Pests and diseases wreak havoc on women's crops. From an economic perspective, farmers frequently end up planting their crops too late because they lack the capital to purchase land and other inputs in time to plant. This issue is exacerbated by changing weather patterns, since it has become more difficult to predict when the start of the season will hit. From a political perspective, the Ugandan government has not put a great deal of emphasis on the need to research the changing climate and adapt farming technologies and patterns accordingly. While it is impossible to accurately predict the weather and its impact on farming, investments in technologies and research directed at understanding climate change in Uganda could help small scale farmers overcome some of these issues. Socially, men and women face the same environmental challenges, but men are typically better equipped to deal with these challenges because they have better access to economic resources as well as information.

BeadforLife has addressed some of these issues by providing women access to inputs like pesticides. They could also help women more effectively deal with changing weather patterns by facilitating early preparation for planting. This preparation would include things like renting land in time for the season, selling agricultural inputs like seeds and fertilizers ahead of time, and providing financial resources so women can hire labor to prepare their land for planting before the rain starts. Late planting was one of the most commonly cited issues in this research study. Providing women with the resources – both physical and educational – for planting on time could dramatically improve yields and increase household food security and the potential for income generation.

Recommendations for Future Research

Conducting research in a foreign country is bound to pose some challenges. Some of the key limitations for this study included the researcher's language skills, adapting to new cultural norms, and gathering quantitative data. The language barrier made it more difficult to interview as many female farmers on the ground as the researcher would have liked. It was difficult to find an interpreter who was able to accurately translate responses from the women, and coordinating interviews with Lusoga or Luganda speakers was substantially more involved than coordinating interviews with English speakers. Therefore, while a great deal of research was conducted among women in the program through participant observation, surveys, and focus groups, the research lacks in-depth interviews with these women. Adapting to new cultural norms was also challenging. Scheduling interviews, for example, often took weeks or even months. One interviewee in particular showed up three and half hours late for an interview he had rescheduled four times. Each piece of the research took longer than expected due to scheduling and

organizational challenges. Finally, gathering accurate quantitative data was next to impossible. The women being surveyed did not have accurate records of the amount of land they farmed, how much of each crop they planted, how much they spent on agricultural inputs, or other quantitative data. Limited time and resources prevented the researcher from delving into these issues further and obtaining better data.

Based on this study, several recommendations for future research come to mind. Each of the challenges identified during this research project could be researched in greater depth. In particular, it would be interesting to do an in-depth study on market linkages and interview people throughout the value chain, starting with the farmers themselves, moving to the middlemen who purchase the outputs from the women and ending with the final sale. Another topic for further research could be the impact of agriculture as an income generating activity versus as a household food security activity. Finally, this case study focuses on a small group of women who are part of the BeadforLife organization. It would be beneficial to expand the research beyond this small case study and into the Iganga community more generally, particularly in areas that are further from the town center.

The Way Forward

Overall, this research project makes it clear that women in Iganga face a myriad of challenges in engaging in small-scale rural agriculture for the purposes of creating sustainable livelihoods through household food security and/or income generation. The economic, political, and social context in Uganda influences each of these challenges. Many of the issues involve deep-seated norms that will take years, if not decades, to change. As more women begin to engage in rural agriculture in new and different ways,

however, change is slowly starting to take shape. Women are becoming more autonomous. They are earning legal rights to land ownership. They are starting to market agricultural outputs and move into the production of traditionally male cash crops. These changes, and many others, will not happen overnight. The changes necessary to ensure women's successful engagement in small-scale rural agriculture as a sustainable livelihood will take time. Small changes are happening each day though, and women are moving toward a societal context where they can create sustainable livelihoods out of small-scale rural agriculture "mpola mpola", or "slowly by slowly".

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