UNANTICIPATED UNITY WITHIN INCIDENTS OF INDEPENDENCE: A PHOTOVOICE OF UGANDAN GENDER-BASED AGRICULTURE ISSUES

A Thesis

by

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ABSTRACT

As the world continues to grow, so does the need for agricultural productively and sustainably. Globally, women are major contributors to these collaborative efforts and yet they face challenges in being as productive as their male counterparts. In Uganda, the male-dominant realities of agriculture are as strong as the country's dependence upon it. Agriculture is the backbone of Uganda. Women are responsible for the majority of agriculture production within the country, despite facing a plethora of gender-based barriers. This photovoice study discovered gender-based agriculture issues from the perspective of female Ugandan agriculture producers to make applicable recommendations for improvements. Participants used photography to communicate and craft consensus about their realities. I concluded that women agriculture producers in Uganda overcome multifaceted issues within agriculture starting with basic technical challenges, physical fatigue barriers, additional responsibilities within the home and finances, a lack of help with production, and an overarching lack of control due to gender-based violence. Despite these issues, Ugandan women agriculture producers display unity in self-identification and pride as women farmers. I recommend efforts be made in improving extension solving technical agriculture issues, and education, research and extension investigate, train, and work to end gender-based violence as a tool for control over women in developing, agriculturally based countries.

DEDICATION

I dedicate this thesis to the ten women from Dokolo and Apac who volunteered to help this Mzungu with her camera project. You inspire me.

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Jillie, thank you for always being a light. Your unrelenting support is something I will always cherish. I wish could see your face in the room when I present this research, but I am glad knowing I had you there when I collected and created this work. I love you.

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Momma – my day-one, number-one. I do everything I can to make you proud of me. Your constant support is appreciated more than you will ever know. I would not be where or who I am without you all.

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NOMENCLATURE

AAAE – American Association for Agricultural Education

COALS - College of Agriculture and Life Sciences

FOH - Field of Hope

Groundnuts - Peanuts

LC1 - Local chairperson, local government leader

NGO - Non-Governmental Organization

NTAE - Nontraditional Agricultural Exports

SDG - Sustainable Development Goals

Simsim - Sesame

TAMU - Texas A&M University

UBOS - Uganda Bureau of Statistics

USAID - U.S. Agency for International Development

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CHAPTER I

INTRODUCTION

Women in Agriculture

Productive and sustainable global agriculture is critical for a healthy, worldwide human population (Jones & Ejeta, 2016). As the population continues to climb, so does the demand in emerging economies, and the resource use in existing developed countries, placing greater demand on natural resources like land and clean water (Tramberend, 2019). This use of resources continues to impact the more than 2.8 billion people across the world who are malnourished, even though enough food is produced worldwide to properly feed everyone on the planet (Alexandratos & Bruinsma, 2012). Well-known reasons like poverty, a lack of developed agriculture, and lack of access to food causes this disparity (Alexandratos & Bruinsma, 2012). The world's population needs productive agriculture, and although there need for improvement, the current production of agriculture is dependent on women. Women fundamentally contribute to the success of all aspects of agriculture (Satyavathi et al., 2010).

Women in developing countries take on major contributing agricultural tasks in addition to continuing responsibilities as primary housekeepers and homemakers, working harder and for more hours than their male counterparts (Satyavathi et al., 2010). While maintaining agricultural production and upkeeping the home, women take primary care of their children, take charge of family nutrition, and work to find additional income. Women in developing countries assume responsibility for feeding

their families (Satyavathi et al., 2010). They are also often responsible for maintaining their household, raising children, growing and preparing food, managing livestock, gathering wood and collecting water. Additionally, women must contribute to the household income by working, often unpaid, in the family's farm (Nelson et al., 2012).

Agriculture-producing women's problems in developing countries intensify with multifaceted issues; women own less land than men, often do not retain control over monetary assets, have less access to resources, are often ignored in policy decision-making, and have a gender-based lack of research on these issues (Satyavathi et al., 2010; Doss et al., 2018; Nelson et al., 2012). This results in an important truth "that women control fewer resources than those required to fulfill their responsibilities to ensure food and nutrition security for themselves and their families" (Doss et al., 2018, p. 1).

Although Doss (2018) cited the concept of women only owning 1-2% of the world's land as a myth, it is imperative to note the statistics of women-owned land in developing countries is stacked against women. A total overview of land rights data in all developing countries simply does not exist, especially that of gender-based land rights (Doss et al., 2018). This problem exists because some countries have state-retained ownership, and citizens only have use rights (Doss et al., 2018). With what data is available, women-ownership in land property and rights is less than men by a substantial margin. Women in Malawi own 40% of the land, 18% in Uganda, 16% in Tanzania, 9% in Niger, and 4% in Nigeria (Doss et al., 2015, Kieran et al., 2015).

independently owned land is at an increased percentage than that of the women's (Doss et al., 2015, Kieran et al., 2015). Even when women do own land, they often operate smaller farms and on spaces only half to two-thirds as large as a man's (Nelson et al., 2012).

Land ownership represents more than just hectares and a property title in developing countries. It is a known truth that the patriarchal gender norms of these countries, coupled with their current legal systems generate difficulty in women's ability to purchase and/or keep land (Doss et al., 2018). Land inheritance systems also keep women at a disadvantage, and when land is inherited by a woman, they often feel pressure to give up said inheritance because of their gender (Doss et al., 2018).

Women in developing countries are tasked with responsibilities of the house, family, and farm (Nelson et al., 2012). These responsibilities are largely unremunerated (Nelson et al., 2012). Women may earn extra income for themselves through the sale of agricultural products, and tend to spend that money on family needs, food, and education for their children (Nelson et al., 2012). Women make major contributions to their household through house and farm work, however, when the crops or livestock is sold as income the monetary gain transfers to the control of the man (Nelson et al., 2012). This lack of control over monetary resources and failure to reap the benefits of their work "reduces women's status in economic transactions, the allocation of household resources, and wider community decision-making" (Nelson et al., 2012 Pp. 25; FAO, 2012).

Agriculture producing women in developed countries see a lack of support, and less resources than men do (Quisumbing et al., 2014; Satyavathi et al., 2010). Training and extension problems are targeted at men (Satyavathi et al., 2010). Therefore, women have less access to communication, state-sponsored services and the chance to improve their skills (Satyavathi et al., 2010). Most women are not asset holders, causing them to have less access to credit; this means their access to capital is less than that of a man's, and holds them back since capital is vital in many important factors of production (Satyavathi et al., 2010; Rufai et al., 2018). This lack of equality in resources causes agriculture production to underperform (Quisumbing et al., 2014). Underperformance due to gender-imposed gaps are significant in both amount and importance. Women are producing less than men—but not because they are less-efficient producers (Nelson et al., 2012; Farnworth et al., 2016). Evidence through research shows input use causes the gap in production (Nelson et al., 2012). According to Nelson (2012), "If women had the same access to productive resources as men, they could increase yields on their farms by 20–30 percent" (p. 27).

Women face disadvantages through land ownership, lack of financial control and less resources than men—and these issues continue as women's issues in developing countries lack attention from decision-making government structures and policymakers (Nelson et al., 2012). In fact, at all levels of policy planning they are restricted, hampered, and ignored, as women lack the rights to meet their needs and ability to improve (Satyavathi et al., 2010).

Not only are women's issues and needs ignored by policy in these situations, but they are ignored by research as well (Satyavathi et al., 2010). The tremendous amount of work and labor women in agriculture produce juxtaposes the little research completed in women-specific agriculture needs, issues, and technologies (Satyavathi et al., 2010). Agricultural research does not consider women the main subject and needs to shift its focus to meeting agriculture producing women's needs (Satyavathi et al., 2010).

Therefore, researchers must address the gender-based challenges women endure, and the lack of women's autonomous voices in this topic. As such, this study will research a population of agriculture-producing women to further investigate the gendered issues they face, bridging a gap in our knowledge base and meeting a global need for understanding.

Rationale

The fifth goal of the United Nations Sustainable Development Goal (SDG) is to "achieve gender equality and empower all women and girls," (United Nations, n.d.).

Progress made to end inequality among women and girls worldwide does not negate the fact that this issue remains prevalent in today's society as "women and girls continue to suffer discrimination and violence in every part of the world" (United Nations, n.d.).

Women and girls given equality in education, health care, decent work, and political representation will fuel economies' abilities to sustain themselves and be beneficial to humanity, holistically. Implementing new legal frameworks regarding female equality in the workplace and the eradication of harmful practices targeted at women is crucial to

ending the gender-based discrimination prevalent in many countries around the world (United Nations, n.d.).

Among Goal 5's SDG are the subcategories: 5.4: to recognize unpaid labor and promote shared responsibility within the household, 5.5: to ensure women's full participation in leadership at all levels of decision making in politics, economics and public life and 5.C: to promote of gender equality and the empowerment of all women and girls at all levels through the adoption of proper legislation (United Nations, n.d.). The purpose of this study directly connects to Goal 5 by proposing further research on Ugandan women in agriculture as gender-marginalized individuals.

The American Association for Agricultural Education (AAAE) 2016-2020 research agenda identifies seven research priorities. One of these priorities is "vibrant, resilient communities" (Rogers et al., 2016, p. 49). Further narrowed, a research question within this priority is "How do agricultural leadership, education, and communication teaching, research, and extension programs impact local communities?" (Rogers et al., 2016, p. 51). This line of research inquiry directly relates to this study as I describe how teaching, research, and extension agents may impact smallholder farming communities, especially those of the participants in the study.

Texas A&M University (TAMU) and the College of Agriculture and Life
Sciences (COALS) faculty, staff, and researchers work to uphold the Land Grant
mission and contribute to productive research within the realms of TAMU COALS's
Grand Challenges. In a recommitment to the land grant mission, the college developed
five grand challenges to, "represent large and complex problems that our society will

face in the coming decades which can be addressed through research, teaching, and service in academic fields found in the College," (Texas A&M University, 2014, p. 2). The first of these five missions is "feeding our world," (Texas A&M University, 2014, p. 2). This study aims to research women agriculture producers with the goal of discovering ways to improve their lives and agriculture productivity, which can in turn help them feed themselves and their families. This aim falls directly under the grand challenge of feeding our world.

Field of Hope (FOH) is a Non-Governmental Organization (NGO) operating in Lira, Uganda. As a reputable NGO with a decade of service to Ugandan agriculturalists, FOH adheres to three pillars—leadership development, agricultural education, and smallholder farmer advancement—to work toward sustainability and development through agriculture in Uganda. All three of these pillars are relevant to this study, because the smallholder farmer advancement program directly relates to this research inquiry, with the aim of studying women smallholder farmers, how they see themselves, and their challenges.

FOH's mission as a local NGO in the area this study took place, TAMU's institutional and relevant grand challenge, AAAE's national research agenda, and USAID's implementation of The United Nations Sustainable Development Goals (USAID, n.d. b) rationalizes the need for research on women agriculture producers in Uganda at an international, national, institutional, and local operational NGO levels.

CHAPTER II

LITERATURE REVIEW

Uganda

Nestled into the central-eastern region of Africa, Uganda borders Kenya, Sudan, the Democratic Republic of Congo, Rwanda, and Tanzania. The Equator runs through Uganda, dividing the country into its Southern and Northern regions. Its location along the Equator and high elevation contribute to the country's tropical climate and high average rainfall (Otiso, 2006).

The people of Uganda span 19 ethnic groups, including Baganda, Banyankole, Basoga, Itseso, Bakiga, etc. The population of Uganda is approximately 42.86 million with 85% of Ugandans living in rural areas (Otiso, 2006).

Uganda fell into British colonization and political control in 1894 and later gained independence in 1962. Due to this colonization, English is the official language of Uganda, though several native languages are widely spoken, including Kiswahili, Luo, and Luganda (Otiso, 2006). Because of Uganda's diverse native tribal populations, many Ugandans view the rise of one singular local language as threatening politically.

The official language does not stand alone as a residual effect of colonization; the Ugandan education system mirrors that of Britain (Otiso, 2006). There are seven years of primary, four of secondary, two years of advanced secondary, and a potential three-to-five years of university level education (Otiso, 2006). With universal primary education (UPE) provided but remaining non-compulsory, education is oftentimes on the

responsibility of the parents. This contributes to the low literacy rates of Uganda, as less than 70% of adults are considered literate (Otiso, 2006).

Uganda's working population of 14-to 64-year-olds is roughly 15 million, with subsistence agriculture jobs making up 43% of the employed population (Uganda Bureau of Statistics, 2018).

Ugandan Agriculture

Agriculture is the backbone of Uganda; the agriculture industry is the basis of Uganda's economy, and is therefore integral to the country's economic success (Salami et al., 2017; World Bank, 2008). In Uganda, smallholder farming dominates as the primary form of agriculture production. Smallholder farmers in Uganda occupy the majority of the land to produce crops and raise livestock (Salami et al., 2017).

The country is known to have some of the most viable land in Africa with twothirds of the country's land being arable, however only a tenth of the land is considered productive in agriculture (Otiso, 2006). With Uganda's growing population, the need for productive farmland increases as the country's heavy dependence on agriculture remains (Otiso, 2006).

The Ugandan population primarily relies on agriculture for income (Sell & Minot, 2018). Ugandan agriculture products span from essential oils like citronella, eucalyptus, and ginger, to more traditional cotton, tobacco, and sugar, and fruits such as bananas, mangos, and avocados (Otiso, 2006). The main crop produced in Uganda is coffee, and the majority of smallholder farmers produce cassava, matooke (plantain), maize, sweet potatoes and beans (Peterman, et al., 2011).

Challenges

Smallholder farmers face specific challenges perpetuated by their way of life that stem "from the lack of access to markets, credit, and technology, in recent years compounded by the volatile food and energy prices and very recently by the global financial crisis." (Salami et al., 2017, p. 8). Smallholder farmers in Uganda are categorized by: (i) the agricultural crops and environment areas where they; (ii) the materials that comprise their farm or area of operation; or (iii) on the revenue generated from farming activities, annually (Salami et al., 2017). Smallholder farming may also be referred to as family farming, subsistence farming and low-income farming (Salami et al., 2017).

Gender Inequality

Lorber (2010) defines gender as:

Through the social processes of gendering, gender divisions and their accompanying norms and role expectations are built into the major social institutions of society, such as the economy, the family, the state, culture, religion, and the law-the gendered social order. Woman and man, girl and boy are used when referring to

A social status, a legal designation, and a personal identity.

gender.

(P. 15)

Male and female do not define gender, rather masculine and feminine, meaning qualities and characteristics a particular society assigns to a particular sex (Nelson et al.,

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2012). Individuals are born with a particular sex but learn through their culture and society to be a woman or a man (Nelson et al., 2012). Perceptions of what it means to be a man or woman root deeply in these cultures (Nelson et al., 2012). Definitions of gender may also change across time and vary between different cultures—but in every culture, "gender determines power and resources for females and males (Nelson et al., 2012, p. 25).

Cultural gender inequality can vary, relying on economic and social structure. Although the term "gender" includes men, women usually bear the brunt of such inequality and see more disadvantages compared to men. Gender inequality can take many forms—from women deprived of attention in policy and research, attaining less access to land and resources, or girls receiving a lesser education than boys even within the same social class (Lorber, 2010; Satyavathi et al., 2010; Doss et al., 2018; Nelson et al., 2012).

Gender inequality affects welfare as well. Women's improved health and education enhances their human and social reproduction. Moreover, gender equity works to erase segregations that marginalize women and cause their social injustice (Goetz, 1998).

Gender-Based Inequalities in Ugandan Agriculture

Women in Africa produce up to 80% of food consumed (Palacios-Lopez, et al., 2015), and play a large role in agricultural production, despite major disadvantages in education, land ownership, credit, and extension services (Lal & Khurana, 2011). The cause of gender-based disparities in agriculture are caused by inequitable access to

agricultural inputs (Killic et al., 2015; Kristjanson et al., 2017). Persistent gender-inequalities limit women's ability to contribute to food production for their own home and income, especially when these limits affect land rights (Palocios-Lopez & Lopez, 2015). Smallholder farmers in Uganda are in competition for land because of the high population density causing them to usually farm on less than a hectare (approximately 2.5 acres) of land (Dixon et al., 2003). These gender-based gaps can lead to negative effects on female farmers' productivity and overall health.

Beyond land rights issues, women lack access to agricultural inputs, and can only contribute with their own labor (Rufai et al., 2018). Women working just as hard or harder than their male counterparts, yet still gaps in productivity as large as 66%, due to the determination of gender disparities (Farnworth et al, 2016; Palocios-Lopez et al., 2017). Limited access to markets, land, fertilizer, and agricultural extension services, as well as low levels of education are all contributing factors to low productivity among women farmers (Collins, 2015; Doss, 2018; Jafry & Sulaiman, 2013; Mukasa & Salami, 2016; Uduji, et al., 2018; Sharaunga et al., 2015). Lack of education is detrimental to development as "education is a foundational driver of development," (USAID, n.d. a). Women's role in agriculture is vital to its success, but they continue to suffer from unequal access and opportunity compared to men (Uduji et al., 2019). Closing the gender gap in African agriculture would be beneficial for women, and the development of countries like Uganda. (Uduji et al., 2019).

Providing women agricultural producers in Africa, specifically in Uganda, an opportunity to represent their story, identify their issues, and illustrate their individual,

communal, and cultural lifestyles will lead to more accurate information about how to access and help underrepresented populations.

In Uganda, marginalization of women perpetuates due to male-dominated local leadership and the fear of corruption that causes women to distance themselves from public authorities (Tripp, 1997; Goetz, 1998), even though women are major contributors to agriculture production world-wide. Although their involvement varies in different countries, regions, or cultures there is hardly any part of agriculture production that women do not contribute (Lal & Khurana, 2011). Women-agriculturalists in underdeveloped and developing countries are not recognized or given the credit to match the amount of work they do in agricultural production (Lal & Khurana, 2011). Lack of recognition is not the only issue; A group, women in agriculture are often landless laborers, have little security, and less support from legislation (Doss, et al., 2014; Lal & Khurana, 2011). A study by Lal and Khurana (2011) found women's barriers to also include little access to decision making factors in and outside of the home, intense manual labor, illiteracy, and lack of knowledge of their own rights.

Land ownership is a main factor in the gender-based agricultural issues Uganda faces. Property rights are vital in rural areas where livelihoods and the economy depend on agriculture (Doss, et al., 2014). Property-rights are empowering, providing decision-making authority, and fallback security that can reduce the feeling of vulnerability (Doss, et al., 2014). Globally, men and women have different rights when it comes to property and land ownership (Doss, et al., 2014; Lal & Khurana, 2011). In Africa specifically, women are often not recognized landholders (Doss, et al., 2014). The

majority of land in Uganda is under unregistered customary law (Sell & Minot, 2018). Under customary law, women have secondary claims to land rights, rarely inheriting it (Sell & Minot, 2018). Most of their claims to land are through male relatives (Doss, et al., 2014). When women are allocated farmland, it is typically more resource-poor than a man's, further increasing their disadvantage, as women are often associated with a lower output value (Peterman, et al., 2011).

Ugandan women face a strongly patrilineal and patriarchal social structure causing less independence and less social autonomy (Kasente et al. 2002). Their issues with land rights are relatively more intense than elsewhere in surrounding countries (Kasente et al., 2002). Women are at a disadvantage to men in Uganda in regard to resource access. The culture and policies of Uganda are stacked against women's rights to access land—typically only able to do so through a father, brother or husband (Kasente et al. 2002; Doss, et al., 2014). To further this issue, women using a male relative's land do not have the ability to grow perennial crops, sell or use the land as collateral without male permission. Women risk being displaced or reallocated to smaller or more resource-poor land (Peterman, et al., 2011). According to Kasente et al. (2002), when women are able to grow crops for consumption and sale, the marketing of their crops is controlled by the male and often do not retain access to their income.

In Uganda, nontraditional agricultural exports (NTAE) are crucial for the growth of the country's economics and increasing agricultural production, and ultimately, Ugandan development (Kasente et al. 2002). The focus on NTAE improvements stems from the risks associated with over reliance on cash crops— a problem in Uganda

(Kasente et al. 2002). This push towards NTAE products is meant to aid individuals, and the overall economy however, there are several factors that prevent women's ability to partake in the opportunities being offered (Kasente et al. 2002). There are gender-specific restrictions to accessing markets, resources, land, and credit that constrain women and increase difficulty for them to benefit from price incentives, and increased production, profit, investment, and yields (Collier, 1988; Collier 1994; Haddad et al. 1995). This problem intensifies as while women will continue to be restrained from benefitting to this policy-supported push, they will still be expected to increase labor (Kasente et al. 2002).

In Ugandan society, the crops produced are gendered. Men maintain cash crops, while women must grow crops used for consumption, like plantains and root-tubers (Kasente et al. 2002). Ugandan women support the majority of agricultural labor and can account for 80 percent of food, and 50 percent of cash crops produced in the country (Sengooba 1996; Tumusiime, 1996). Their production duties also include weeding, post-harvest processing, and clearing land. In addition to the farming duties, women in Uganda are socially responsible for providing household food, cooking, cleaning, and childcare (Sengooba 1996; Tumusiime, 1996).

In summary, women in Uganda face gendered issues in agriculture affecting their productivity, and financial security. Despite the prevalence of information about these challenges, little research equips women with autonomous voices and less focus on women's perspectives of these issues on their reality. Therefore, this study aims to investigate gender-specific nature under the auspices of Feminist Theory and using

photovoice to counter patriarchal institutional knowledge bias and equip participants with autonomy.

Theoretical Framework

Feminist theory views interactions between men and women through a power hierarchy lens and brings to light inequalities due to gender (Keedle et al., 2019; Lindsley et al., 2019). In essence, Feminist Theory is the notion that gender, unlike sex, is a non-biological social construct—as anthropological researchers found societies that constructed more than just two genders (Parpart et al., 2000). Feminist theory stems from feminist ideology; The multi-disciplinary theory spans anthropology, art, literature, philosophy, politics, and economics (Hirudayaraj & Shields, 2012). The goal of Feminist research is to *understand* and *remove* inequalities in gender that scaffold the structure of societies (Hirudayaraj & Shields, 2012) and fundamentally "seeks to unmask gendered patterns in human relationships, whether in public organizations or in the family to promote more equitable and emancipatory actions among all members in society" (Morton & Lindquist, 1997, p. 349). These goals are not easy to achieve, as implementing foundational change in existing institutional structures is difficult (Keedle et al., 2019).

Scholars in Feminist Theory such as Olivia Harris, Maureen Mackintosh, Felicity Odium, Ann Whitehead, and Kate Young argued both women and men are biological beings, but the institutional subordination of women is a social construct and not determined through biology (Reddock, 2000). Because I am a social scientist studying

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international agricultural communications, I seek to understand and remove inequalities germane to women agriculturalists, supported by the UN's SDGs.

The difference between biological traits and socially constructed realities of "sex" and "gender" are constructed through socialization, education, and other factors (Reddock, 2000). Biological aspects are fixed and cannot be changed, but "what is social is subject to change and should be the focus of attention for feminist theorists" (Reddock, 2000, p. 37).

Feminist Theory lends itself to the present study because, through literature, the socially constructed gender biases in Ugandan society are evident. Women in Uganda, specifically those who rely on agriculture as an economic and social means for survival face daily challenges because of the institutional gender-based discrepancies. Therefore, Feminist Theory is both applicable and supportive of the need for more research and aid to be devoted to gender inequalities in Ugandan agriculture.

Feminist Theory in a Global Approach

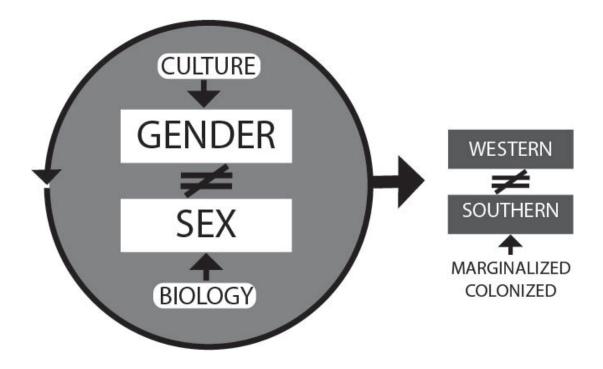
Feminist theory encompasses seemingly endless growth and sub-theories. This growth in the direction of sub-theories that take geopolitical marginalization into consideration is known as the 'Global South', or 'Third World' (Epstein & Morrell, 2012). Southern Feminist Theory focuses on the histories of colonialism of marginal or secondary countries (Epstein & Morrell, 2012). The term 'Global South' emerged from postcolonial studies. It is used to refer to regions such as Latin America, Asia, and Africa, often referring with histories of colonialism that formed and maintained large inequalities in class and race (Dados & Connell, 2012). Southern feminist theorists

denote traditional Western feminism as it tends to reproduce imperatives within colonization when theorizing the struggles of women in postcolonial contexts (Oyewumi 1997; Spurlin 2010). Approaching this study with a framework of Southern Feminist Theory is crucial to my population, as Uganda is a once-colonized country and its people still face issues resulting from colonialism. Within the broader umbrella of Feminist Theory, *Southern* Feminist Theory is a vital component and consideration. Rooting this study in the conceptual base of Southern Feminist Theory can help ensure the complex issues of Uganda's cultural climate are appropriately studied.

In summary, Feminist Theory is broadly the concept that biology determines sex, but culture and other non-biological elements determine gender, and thusly gender inequalities. The spectrum of Feminist Theory is ever-growing and stemming from its roots is Southern Feminist Theory that takes into consideration marginalized populations born from colonized countries. Figure 2.1 illustrates the conceptual frame of the study.

Figure 2.1

A Concept Map Illustrating Southern Feminist Theory as a Segment of Feminist Theory



Operationalizing Feminist Theory

I connected Feminist Theory explicitly to this study through the methods of data collection and frame of analysis. This study uses Photovoice because of its theoretical roots within Feminist Theory. This method choice is crucial to the nature of this study because investigating gender-based issues is reliant on empowering the women participants.

Photovoice studies are generated *by* and *with* participants instead of *on* or *over* them, mirroring "Feminist inquiry into women's realities is carried out by and with women instead of on women" in an empowering way that honors the intelligence of

women with the goal of valuing their knowledge and experience (Wang & Burris, 1994, p. 174; Reinharz, et al., 1993). The concept of empowering women to tell their own stories through images and photography stems from a version of feminist thought that questioned our understandings of power, representation, and voice (Wang & Burris, 1994).

Feminist theory and research emphasizes "women as authorities on their own lives" (Wang & Burris, 1994, p. 174). Through photovoice women are enabled to "construct their own knowledge about women according to their criteria as women, and to empower themselves through knowledge making," (Spender & Kramarae, 1992).

Statement of the Problem

Rural women in Uganda own only 18% of the land and continue to be affected—including a lack in agriculture research attention. Women agriculture producers in developing African countries such as Uganda face gender-based disadvantages on many facets of their life, including agriculture production and are often left out of development research and policy-making decisions in agriculture. Stakeholders need a deeper understanding of those disadvantages and facets to effectively make policy changes to eliminate these issues. Photovoice, with its ultimate goal resulting in policy-change, is an ideal method to study this problem.

Statement of Purpose

The purpose of this study is to explain gender-based issues disenfranchised

Ugandan women agriculture producers. Women in developing countries, specifically

Uganda, face challenges that will be better visualized, identified, explained, and

analyzed by themselves. A photovoice study with Ugandan women agriculture producers as participants will produce images, make meaning of those images, and codify emerging themes, theories, or issues.

Research Questions

Aim 1: Define Ugandan gender-based agriculture issues from the perspective of female Ugandan agriculture producers.

RQ1: How do Ugandan women see their role within agriculture?

RQ2: How do Ugandan women feel they face gender-based challenges within agriculture?

Aim 2: Make recommendations for improvements in policy based on evaluation

RQ3: What struggles and problems within agriculture do Ugandan women face?

RQ4: How should improvements be made based on these problems?

CHAPTER III

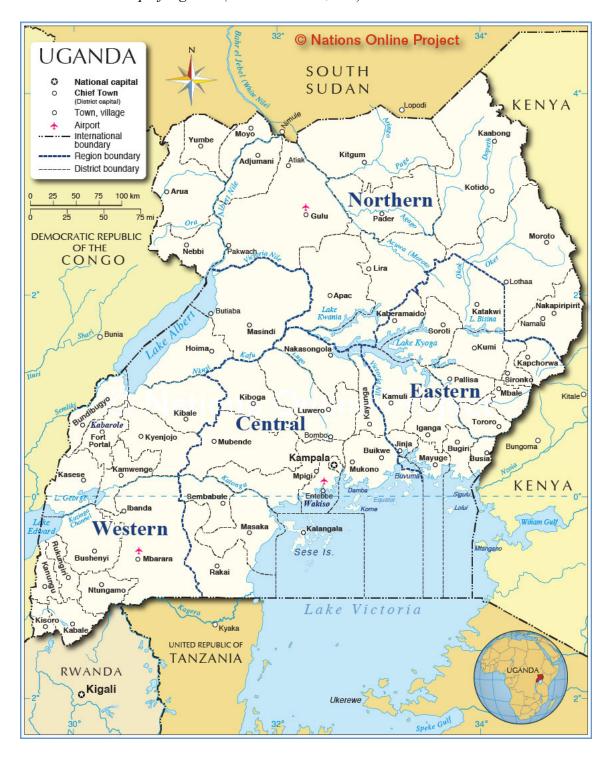
METHOD

Study Context

This photovoice was conducted in Lira, Uganda. Figure 3.1 provides visual reference of the country. In the Northern region of Uganda, Lira is approximately 200 miles from Kampala, the capital city of Uganda. More specifically, participants lived in the Dokolo and Apac villages in the area. The area comprises largely forested land with swamp-like poor drainage. One of the region's main economic activities is agriculture, according to the Lira District Economic Profile on Uganda's Ministry of Trade, Industry and Cooperatives. Agriculture production includes sweet potatoes, Sorghum, groundnuts (peanuts), finger millet, pigeon peas, cowpeas, rice, bananas, tomatoes, beans, maize, sunflower, coffee, vanilla, simsim (sesame), sugarcane, tea, cotton, oil seeds and fruits such as pineapples, oranges, passion fruits, sugarcane. Livestock production includes; cattle, goats, sheep, pigs and poultry chicken, ducks, turkeys, guinea fowls (The Republic of Uganda, 2019).

Figure 3.1

Administrative Map of Uganda (Nations Online, n.d.)



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Religion in Uganda

Uganda's religious identity includes Muslim and indigenous religions but is primarily Christian. This majority of 80% is divided between Roman Catholics and Protestants (Britannica, n.d.).

Design

This study was an innovative form of participatory action research known as photovoice (Wang & Burris, 1999). Subjects observed themselves, their environment, and their issues themselves, produced self-taken photographs that documented their lives, and the subjects were observed naturalistically through the photos they produced (Wang & Burris, 1999). Subjects were assigned to take photos they felt represented their lives, as per Wang & Burris (1999) as women farmers.

Photovoice

Photovoice is a photographic technique in which individuals are able to represent their own community through self-produced images (Wang & Burris, 1997). The method, created by Wang & Burris (1997) developed from three areas: firstly, education for critical consciousness related literature, feminist theory and documentary photography, secondly photographers' and educators' efforts to push back on assumptions surrounding representation and documentary creation, and lastly, Wang and Burris' (1997) experience in applying the methodology in the Yunnan Women's Reproductive Health and Development Program, supported by the Ford Foundation.

Theoretical Framework of Photovoice.

Seminally, Wang and Burris (1994) used Photo Novella as a tool for empowerment in participatory research. The Photo Novella developed in part from Paulo Freire's methodology where the photos serve as a "code" participants use to reflect their community (Wang & Burris, 1994). The concept of a photovoice stems from methodologies known as photo novella, foto novella, and photonovel that use photography to teach language and literacy, and tell a story (Wang & Burris, 1997). Similar to Friere's concept of using vocabulary derived from the student's everyday life to be used in their literature courses, in Photo Novella images and words from the participants themselves create the curriculum (Freire, 1970; Wang & Burris, 1994). The participants form the photo novella curriculum through their photographic portrayal of their community (Freire, 1970; Wang & Burris, 1994). Furthermore, based on the methodology of Friere, the foundational idea behind problem-posing education are the issues individuals view as central to their lives and allows them to see related themes that spark dialogue. Friere stated the visual image itself enables critical thinking on community needs and the discussion of common social and political influences (Wang & Burris, 1994). Although Friere used line drawings as images and photographs to represent individual's realities (Freire, 1973), photovoice goes even further, with participant-produced photographs (Wang & Burris, 1997). This concept gave voice to those who did not have one, and allowed them to discuss their own community, making it an applicable concept for the participants of this study who may not otherwise have an outlet to discuss their gender-based issues.

Wang and Burris (1997) cite Freire's work as the first source for photovoice development, but secondly note feminist theory as a source for attention brought to the male bias and sexism that influences participatory research. A critique on Freire's methods stems from feminist theory, and thus the incorporation of feminist theory into the creation of Photovoice to empower women where Freire's ideas may have excluded them (Maguire, 1987). Maguire identified Friere's drawings used for culture circle discussions that were the basis for dialogue about "man in the world." According to Maguire (1987), this suggested that men are the creators of culture—excluding women. Both men and women participated, but focused on only man's contribution to the culture both genders took part in. Maguire (1987) stated, "Freire maintained that domination was the major theme of our epoch, yet his conscientization tools ignore men's domination of women." (p.84). The emphasis of feminism in photovoice, correcting the lack of gender-equality in Friere's work, is vital to the use of photovoice in this study because the nature of the all-female participants; It would be unethical to use a method that so blatantly ignored the needs and value of women, in a female-centric study.

Photovoice's roots in Feminist Theory (Wang & Burris 1994) stem from the method's involves participants as it is generated by and with participants instead of on or over them, mirroring "Feminist inquiry into women's realities is carried out by and with women instead of on women" in an empowering way that honors the intelligence of women with the goal of valuing their knowledge and experience (Wang & Burris, 1994, p. 174; Reinharz, et al., 1993). The concept of empowering women to tell their own stories through images and photography stems from "version of feminist thought which

has questioned our understandings of power, representation, and voice" (Wang & Burris, 1994).

This leads into the third influence, documentary photography. Rather than orthodox documentary photography, where the researcher may be the photographer to record the data via photos, the camera is in the hands of the subjects themselves (Wang & Burris, 1997). These individuals are likely to not normally have access to a tool such as a camera and are given the opportunity to record and propose change within their own community (Wang & Burris, 1997). Participants are no longer the passive subject of researcher or documentarian intentions or photos (Wang & Burris, 1997). Photovoice, however, is not the antithesis of documentary photography and is a valued predecessor to photovoice (Wang & Burris, 1997). The addition of documentary photography by the participant is critical to this study, as it allows for participatory action by the women involved. Their words explaining their issues are accompanied by an unchangeable document they, themselves created to document their own idea or phenomenon.

Therefore, based on the theoretical framework of photovoice, lack of research in the area of women in agriculture, and attention of Ugandan smallholder farmers in policy, photovoice was the ideal methodology to investigate this problem (Wang & Burris, 1999).

Photovoice as a Needs Assessment.

Photovoice contributes to needs assessment in several ways. Photovoice as a participant appraisal tool allows the participant's knowledge to become the expertise (Wang & Burris, 1997). The method is a solution to the issue of researcher's bias and

opinion clouding what the community values, needs, and wants (Wang & Burris, 1997). Therefore, participant action gives legitimacy toward the "popular knowledge" provided by the participants without the possibly limiting factors of traditional scientific structure (Gaventa, 1993). Secondly, needs assessment requires description, where the use of the visual image in photovoice enables participants to photographically describe their needs (Wang & Burris, 1997). Thirdly, photovoice ensures the representation of the perspective of vulnerable populations (Wang & Burris, 1997), such as Uganda's rural, female, farming population. Photovoice enables anyone who can operate a cameratherefore it removes limitations generally associated with poverty, lack of schooling, or literacy issues (Wang & Burris, 1997). Fourth, photovoice can be used across a range of social and behavioral settings. Participants may be able to record matters that researchers are unable to (Wang & Burris, 1997). Fifth, cameras can be a motivational tool, as per Wang and Burris (1997) that may sustain participation because the project may be viewed with ownership and pride.

Photovoice's Adaptation.

A photovoice is a tool for participatory research that gives individuals the ability to record and reflect issues, triumphs and stories of their community (Wang & Burris, 1997). A secondary goal is, through discussing the photographs, to create a critical dialogue of community strengths and concerns (Wang & Burris, 1997). A level of critical thinking is achieved through photovoice by allowing communities to evaluate their own societal and political issues, and the forces that influence their lives through the visual image (Freire, 1970).

The photographs created through this process give participants the ability to identify key elements of, and accurately represent their community (Wang & Burris, 1997).

Photovoice, formerly known as photo novella, is a participatory action research method that includes participant generated photographs and the participant's explanation and storytelling of those photographs (Latz, 2017). This method is in sharp contrast with the "conventional model of pure research" that uses the subject in a passive manner (Whyte, Greenwood & Lazes, 1991). In a photovoice, participants are self-representative and integrated with several steps of the research including developing photography prompts, taking the photos and aiding in analyzing data (Latz, 2017). In a photovoice, participants get to see the effects of their change (Latz, 2017). They are committed to the results of their inquiry because of the environment of giving and receiving information freely, and informed decision making a photovoice creates (Argyris & Schön, 1991).

According to Wang and Burris (1994) photovoices are rooted in feminist theory, because they are created with the participants, not on or over them. Empowering participatory-action research has been used with female gender populations such as Chinese women as visual anthropologists, Costa Rican women's community critique, and Chinese women advocating for their health to policy makers (Wang & Burris, 1996; Morgan, et al., 2010; Wang, et al., 1998). A population facing gender-based issues that has yet to be researched and empowered via photovoice is Ugandan women, specifically agriculture producers.

Population

The population consisted of rural Ugandan women agricultural producers in the Dokolo and Apac villages in Northern Uganda. The population consisted of individuals who were over the age of 18, women, Ugandan natives, and self-identified as agriculture producers or farmers. Community and opinion leaders helped identify potential participants in a community gathering at each location. Participants were embedded and involved in their community, stated as an ideal quality in participants in Wang & Burris (1997).

Sample

A purposive sample was chosen from two villages. These villages were sampled because they have participated in FOH smallholder farmer programs previously and met the needed criteria, being adults over 18 years of age, women, and agriculture producers. A sample of 10 women total was selected out of volunteers at two community gatherings. FOH identified opinion leaders—pastors in each village—and they attended the gatherings. Opinion leaders invited women to a community gathering. The sample was split evenly with two groups of five, one group in Dokolo and the other in Apac. During the gathering I communicated the purpose and methods of the study with a translator present and asked for volunteers. Then, volunteers identified themselves.

Demographics

The participants of this study ranged in age from 21 to 72. They were all female, mothers, and took care of children—a combination of biological and dependents—in amounts of two to 16 as shown in Table 3.1. They were all Ugandans and participated in

smallholder farming for a living, growing various crops and animals, as shown in Table 3.1.

 Table 3.1

 Demographic Elements of Participants

Name	Age	Products Grown	Number of Dependents
Jaime	72	Beans, soy, g-nut, simsim, bananas, beans, cows, goats, chickens	10
Pearl	71	Groundnuts, soybean, sunflower, cassava, maize, beans, sweet potato, simsim	11
Bailey	55	Soybean, groundnuts, simsim, Maize, cassava, beans, sweet potato	9
Ruby	50	Cattle, cassava, soy, sunflower, simsim, beans, peanut, coffee, bananas, eggplants	16
Cait	30	Peas, sweet potato, yams, maize, cassava, pigs	3
Jan	28	Bananas, soy, sunflower, maize, beans, sweet potato, oranges, eggplant, simsim	5
Gail	27	Sweet potato, yams, cassava, maize, pigs	2
Violet	27	Maize, cassava, beans, sweet potato, groundnuts, simsim	4
Val	26	Sunflower, soy, millet, groundnuts, cassava, sweet potato	3
Hallie	21	Soybeans, sweet potato, millet, maize	6

Procedure

This photovoice began with selecting community and opinion leaders in Lira, Uganda to recommend participants. Opinion leaders were pastors in the Dokolo and Apac villages in Northern Uganda. I met with the communities in Dokolo and Apac on separate, consecutive days. In Dokolo, the gathering and initial meeting took place in the village's previously established meeting space in a schoolhouse-like structure. First, I was introduced to the group by their leader, the pastor. We joined the community in their meeting. The group consisted of the majority of adults in the village—both men and women. Then, I briefly explained my study to the group. A translator present aided me in properly communicating with the group. I proceeded to explain the study, its purpose, methods, and what potential participants would do if they volunteered for the study. I then asked for volunteers who met the criteria of being over 18 years of age, a woman, and farmer. Five women at the Apac meeting volunteered to be participants. After the community concluded its meeting with its own worship and traditions, the five volunteers stayed with me.

I took this time to firstly explain the study in more detail, with the help of a translator. I introduced myself, my purpose for this study and photovoice methodology to the participants in a group discussion and then the theme and purpose of the study was clearly identified and explained. Participants collectively worked to identify potential themes to focus on as women agriculture producers. The initial theme of gender-based agriculture issues was posed to the group, and through discussions the participants discussed ways to portray it. They brainstormed and made recommendations to one

another as to what types of subjects their photos may have. The group clarified if they were able to take images of their home and other elements related to their life.

I introduced the group to the cameras potential risks, power and ethics (Wang 1999) and ways to see photographs, and how to protect and handle the camera (Wang & Burris, 1997). The translation and explanation continued as I provided each participant with a translated physical copy of the informed consent document. Many participants could not read; therefore, the consent was read by myself and translated. Participants asked clarifying questions, translated, and were answered. Participants were informed that they are fully able to withdraw and exit participation at any point for any reason during the study. They were informed that no photographs that identify individuals will be used or released without the separate consent of both the photographer and identifiable subject of the photograph. Facilitators must take into consideration the participants potential vulnerability based on social class, gender, access to power, health and cultural issues (Wang 1999).

I then introduced the participants to the cameras. I showed them how to turn the camera on and off, take a photo, view the photos and how to change the battery. Because the participants may not have access to electricity, cameras included two fully charged interchangeable batteries. I advised participants to turn off the camera when not in use to conserve battery life, and therefore allow for more photo-taking opportunities while in possession of the cameras.

I discussed photography ethics, and participants were advised not to take photos of other individuals without their knowledge and verbal consent. The participants and I

discussed when and how to approach someone to take their photo, when someone might not want to have their photograph taken and taking photos of people without their knowledge.

I then distributed the cameras, with SD cards and batteries already inserted, to the participants. Participants immediately began taking practice photos in the discussion space and had time to ask clarifying questions as they learned how to use the tool.

For the purposes of this study and available resources, digital 'point-and-shoot' cameras were used. Participants were able to see their photos on a digital screen as they took them. Technical photo composition advice was kept to a minimum during these discussions as to not influence the creative thought of the participant, as per Wang (1999). Advice like keeping fingers away from the lens as to not disrupt the photo, avoid getting the camera wet, and other technical issues were given, as advised in Wang (1999).

The Participants and I discussed and planned a second meeting time for ten days after the initial meeting. Participants were left with their cameras for the ten days in between meetings to take photos at their own pace and leisure.

This process was repeated the following day at the Apac village. Notable differences are that the meeting took place in a church, and almost all of the five participants at Dokolo displayed their English-speaking abilities at the initial meeting, unlike the Apac group that did not speak English to me at the first meeting. The translator remained and translated just as she did at the Apac meeting for consistency and to avoid miscommunication.

The Apac meeting, just as Dokolo the day before, began as community gathering with the study explained, volunteers selected, and then the volunteers remained with the translator and me to receive the same explanation of methods, photography ethics, consent, discussion, and camera practice as explained above.

This meeting concluded with a meeting time set for 10 days after the initial meeting, keeping both groups as consistent as possible with the same time of camera possession and photo taking.

Data Collection

The translator and I returned at the planned meeting time to the Dokolo group.

All five women, and some of their young children, arrived, and the concluding meeting began. I audio recorded the meeting, while taking notes. The translator translated both myself and the participants, although the group spoke more English to me at this meeting than the meeting prior, enabling greater member-checking abilities. Images were uploaded from the SD cards onto my password-protected laptop so the participants could view their own photographs, view each other's, and identify elements within them during the discussion.

Participants gathered, selected photographs, contextualized them and told the story of their photos, and identified issues, theories and themes through the image and their experience (Wang 1999). Before photo selection began, I asked participants brief demographic information including their age, crops they grew, animals they produced, and how many "dependents" they had to gather a sense of their responsibilities. Each participant was asked to identify and talk about one or two photos she deemed the most

significant, and why (Wang 1999). Firstly, each participant went through each photo they took and explained each photo briefly to me. I asked the participant to pick one or two photos that she believed best represented themselves as a woman-farmer. This process repeated for all four women attending this meeting. All four women selected two photos each.

Then, the two participant-identified photos were discussed with more detail. For each photo I asked the participant:

What is in this photo?

What does (identified photo-content) mean to you as a

woman farmer?

These were semi-structured interviews within a focus group. The questions were based off of those in Wang (1999). I asked each participant the same introductory question, and follow-up question, and comments and discussion ensued. I asked each participant about their photos, one at a time.

After each participant explained their selected photos, I began a group discussion starting with the following questions based on Wang (1999):

What do you see here?

What is happening here?

How does this relate to our lives?

Why does this situation, concern, or strength exist?

What can we do about it?

The group identified collective themes within each other's photos. Group discussion is for the women to gather and reflect on their images (Wang & Burris, 1997). Viewing the enlarged photos increases the visual impact (Wang & Burris, 1997).

The next day I traveled to Apac with my translator. The participants met us in the same church room we had met in 10 days prior. Four women were in attendance. I matched the process to that of the day before; we went through their photos together. Individually they briefly explained their photos to me—just as the first group did. They picked out their photos under the same prompt. We then went through the photos, one by one, as I asked them the semi-structured interview questions, listed above. They contextualized their photos and explained them to me.

Then, we naturally transitioned to a group discussion. This group and particular meeting spoke more English to me, allowing for an easier flow of discussion without the translator necessary for every exchange. This group, more so than the last group and individual, was more enthusiastic about sharing with me. The discussion concluded, I thanked my participants, and then ensured I ended the audio recording.

After the first focus group with the four women from Apac concluded, the fifth woman arrived. Worried she missed the final interview, I assured her she and I would complete it together. I repeated the process—she explained her photos to me as we went through them, she also chose two she felt best represented herself as a woman-farmer, and she explained them to me in detail after I asked her the interview questions above. As it was her, me, and our translator, there was no group discussion. Instead she and I

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discussed similar matters together. This individual's ending meeting consequently resulted in an interview, rather than a focus group.

Data Analysis

Participants were involved in the three stages: selecting, contextualizing and codifying (Wang & Burris, 1997). In selection, the participants chose from their self-produced photographs the images that best told the story of their role, relationship and life related to agriculture. Then they articulated those stories, contextualizing them.

Lastly, they identified emerging themes, issues or theories that they saw within their photos and the stories (Wang & Burris, 1997).

The participatory approach to this photovoice dictated both the first and second stages. Selecting allowed the women to lead their way in the discussion because they were the producers of the images. Contextualizing and storytelling happened in the group discussion over the chosen photographs. Discussion and contextualization was driven by the Wang and Burris (1997) acronyms, VOICE—voicing our individual and collective experience. Photographs without the contextualization from the women would contradict the purpose and meaning of a photovoice (Wang & Burris, 1997). The women were the voice of their own photos and decided the meaning behind them. There were multiple meanings to their photos, thus the emerging need for codifying (Wang & Burris, 1997). In this third stage, the women identified patterns or related topics to define issues, theories and themes present in their photos (Wang & Burris, 1997).

The participants codifying their images became the application of the analysis.

They codified issues that are immediate, tangible and pragmatic (Wang and Burris,

1997). They spoke of emerging patterns based on data from the group discussion (Wang and Burris, 1997).

I recorded all interviews and matched each speaker with the photos they took.

(Jurkowski & Paul-Ward, 2007). To maintain confidentiality, I removed all identifying information prior to the analysis (Jurkowski & Paul-Ward, 2007).

Next, I systematically coded (Jurkowski, 2008) the interviews conducted using the Constant Comparative Method (CCM) as per Glaser and Strass' (1967) method. The analysis occurred in three stages, according to Grove (1988): comparing incidents applicable to each category; integrating categories and their properties; and delimiting the theory.

I listened to all three recordings—note, the Apac group was split into two groups, resulting in three total interviews. As per stage one, "comparing incidents applicable to each category," I recorded "incidents" (Grove, 1988) on note cards as each participant identified the meaning of their photos, and what was represented. I continued creating note cards for statements made in the group discussion portion of the recordings. As per CCM as I compared new incidents with existing incidents to begin creating unnamed incident categories based on what "felt" or looked right (Grove, 1988; Glaser & Strauss, 1967). During this process, I experienced instances of internal conflict in deciding certain incident's placement. When this occurred, I began to conceptualize each category and make said categories explicit. Then, each category began to develop its own definition. After this stage I implemented a peer debriefing session with a research mentor and graduate research assistants to ensure credibility to my categorization.

Once all of the statements from the recordings took the form of incidents and were initially categorized, I proceeded to condense them as per stage two, "integrating categories and their properties" of (Grove, 1988). I placed incidents into categories by the provisional rules I developed in stage one, rather than what looked right. Those rules then began to take a new shape as incidents shift and enter new categories—condensing I proceeded. Then, the rules of the categories became explicit.

Lastly, I entered the third stage, "delimiting the theory" of (Grove, 1988) and integrated overlapping areas to condense into a few final themes. I eventually narrowed the categories down to the final themes to find the final boundaries of my themes.

Delivery and Dissemination

Photovoice uses findings to effect policy as the third and final piece (Wang, 2006) through reaching policy makers, community stakeholders and leaders. Policy-making choses priorities and "is the articulation of voice through the concrete distribution of resources" (Wang & Burris, 1994). A central aim of this photovoice was contributing to an environment where women agriculture producers may communicate their self-determined concerns in discussions regarding policy change (Wang & Burris, 1994). Continuing on the goal of empowerment, the participants were encouraged to "facilitate concrete, positive changes in policy through a process of empowering women to speak for themselves (Wang & Burris, 1994). During the last group discussion, the participants and facilitator discussed what form of action they would like to take (town hall meeting, discussion forum, etc.) and who they would like to present to and discuss their themes, issues and findings with. A follow-up meeting is planned to be held with

the participants and the community member(s) they deemed appropriate to receive this message in which they discuss the results of their photovoice.

During the end of both focus group meetings, and the Apac single-participant meeting, I explained dissemination, and reiterated that my goal is to share the ten participant's findings with people the participants wanted to hear them. Rose of the Dokolo group stated she wanted Field of Hope to be presented with the findings, and the rest of the group agreed. Rose also stated she wanted their Pastor to be included so he may pray for the participants, and the local government. At the Apac meetings, Val, Bailey and Jaime named Field of Hope as well, with the rest of the group agreeing. Val also named the local government, like their L1's (a local sheriff-like government member), to be informed.

Due to all 10 women agreeing they wanted Field of Hope to be informed of their collective photos, discussion and findings, I will present these results, conclusions, and recommendations to Field of Hope. If possible to access, I will also present these findings to the Apac region's L1 and the Dokolo village's Pastor.

Trustworthiness and Credibility

In qualitative research, trustworthiness ensured truth value, applicability, consistency and neutrality (Lincoln & Guba, 1985). Trustworthiness should be used as a "guide and evaluate research to yield data that reflect the truth as it relates to the study," (Leipert & Anderson, 2012; Graneheim & Lundman 2004).

To achieve and demonstrate trustworthiness: (i) reflections were used verbatim and as presented by each Ugandan women agriculture producer; (ii) participants'

perspectives, language, and photos formed the bases of research themes; (iii) interviews and photographs were reviewed by at least two investigators "to facilitate interpretive rigor"; and (iv) detailed descriptions of the data collection, data analysis, and findings were provided (Leipert & Anderson, 2012; Graneheim & Lundman 2004).

Credibility was achieved through prolonged engagement. I spent time with both communities before requesting their participation, including eating meals, attending religious services, and general group conversation in their usual surroundings. In addition to this, I recorded all interviews to assure data analyzed was verbatim.

Triangulation was ensured through the collection of both photographs taken by participants, and the interview recordings of the participants. Member checking to ensure the translator was communicating effectively took place when I repeated the translated answers back to the participants several times throughout the interview, and they affirmed their answers. Additionally, I kept detailed reflexive journaling and an audit trail during my entire trip, and especially during contact with the participants.

Trustworthiness and credibility during data analysis increased by investigator triangulation during the coding process, and peer debriefing over the emerging themes to ensure my decisions. I further maintained transferability by providing thick, rich descriptions in my findings, including direct quotes to accompany the themes.

Study Limitations

These focus groups, and one interview, were conducted with a capable translator who was fluent in the Luo language, Lango dialect (the dialect of the participants) and English, the language of the translator. She was instructed to translate individual's statements, however, during focus group discussion this naturally became a challenge as many participants began to answer questions at once, and/or engage in fast-paced group discussion. Therefore, a notable limitation of this study is the lack of verbatim translation in some parts of the focus group sessions. I performed member-checking, as stated above, and especially did so when this issue occurred. Nonetheless, it is important to note that there is data from discussion lost in translation.

It is important to note that, because of this need for translations, subsequent quotes in the results portion of this study are third-person translations of first-person answers of the participants. A notation of this person-change is marked with brackets in the quotes where necessary. For example, when Ruby said in her native language "I took a photo of simsim" it was relayed to me in English as "She took a photo of her simsim," so it is reported in findings as Ruby said "[she] took a photo of [her] simsim."

Due to time constraints of my physical ability to travel to Dokolo and Apac, another limitation of this story is the relatively short timeframe in which the participants were in possession of their cameras to take photos. They had ten days in each group with the photos, however, many photovoice studies often provide a longer timeframe to gather photos.

Another limitation to this study is my current lack of access to disseminate this information to a key informant or power authority in Uganda. Although findings from this study are being disseminated by and through FOH implementers, there is more work to do to affect lasting change.

CHAPTER IV

RESULTS

This chapter discusses the themes developed through the analysis of data collected via participant-generated photos and focus group interview transcripts, followed by the connection of the themes with the research questions of this study. To ensure confidentiality, each individual's name referenced represents a participant through a pseudonym.

Feminism in Ugandan agriculture, through this study, is represented through the emergent themes: agronomic knowledge and competencies and abstract social constructs, as well as sub-themes to follow. Table 4.1 displays the overall themes, sub-themes, and the number of individual incidents within each theme.

Table 4.1 *Themes and Frequency of Incidents*

Themes & Sub-Theme Titles			n	N
Agronomic Knowledge and Competencies				47
	Varied Agriculture Practices		20	
	Physical Fatigue		7	
	Technical Challenges		20	
Abstract Social Constructs				74
	Patriarchal Society	Women Assume the Majority Responsibility	21	
		Physical and Financial Abuse	6	
	Independence			
		Lack of Help	10	
		Visualization and Self-Actualization	21	
		Pride in Self-Identification	16	
Total	···			121

^{*}Note incidents are the units of information generated from focus group recordings and sorted in analyzation

Agronomic Knowledge and Competencies

Through the supporting incidents generated from the participant's explanation of their photos, agronomic knowledge and competencies is an evident theme, summing up the supporting themes: varied agriculture practices, physical skills and fatigue, and technical challenges.

Varied Agriculture Practices

With 20 incidents supporting this theme, the participants explained how they use tangible and varied agriculture practices to support both themselves, and their families. Participants took photos of their crops, including soybeans, ground nuts, sunflowers, simsim, and sunflowers. They displayed their practical agriculture knowledge clearly, taking photos of themselves weeding, planting, harvesting and using the ox plow as a method—with the Dokolo group collectively stating they "relate to one another through use of ox plow for plowing." Jaime said she "wanted to show ox plow method of farming," which is a vital technique for her success as she "cannot plant without an ox plow," as shown in Figures 4.1 and 4.8.

Figure 4.1

Participant Photo 1: Women pose in a garden with their ox plow.



The participants showed me their agricultural skills as Pearl explained she "wanted to show the cultivation of sweet potatoes," and Cait took a photo of herself "weeding maize in [her] photo." The Dokolo group explained "maize and cassava grow intercropped," as well, to improve harvest. Jaime said she "wanted [me] to see how they harvest Simsim," as shown in Figure 4.2.

Figure 4.2

Participant Photo 2: Woman and man processing harvested simsim crop.



This "photo shows simsim brought home from the garden, drying" Jaime said, adding "Simsim helps [her] for home consumption," as she uses the crops she grew to feed herself and her family. The inclusion criteria for this theme was the mentioning of agriculture practices, skills, and implementation. Exclusion criteria for this theme was the mentioning of these practices causing physical fatigue, as that would be better represented in the following theme.

Physical Skills and Fatigue

Every element of agriculture implementation, even processes aided by animals, cause exhausting physical fatigue. As described above, the participants engage in varied, rigorous agriculture practices. These are necessary for production and ultimate financial and nutrition gain, however, they come at a physical cost to each individual. Women use ox plows to plow fields, navigating the tough earth to ready it for planting. If ox plows are not available, they must turn the soil by hand, as Gail photographed herself performing this task and stated she "wanted to show how she farms using a hand hoe." Even after planting, the manual labor continues as they care for their crop—needing to "use a person to scare away birds from the garden," Ruby stated.

The physical labor takes a toll on their bodies, and they do not anticipate the work lessening in the future, nor do they see a positive outcome from their labor. The Apac group consensed that "after completing so many tasks, you feel tired." Jan commented on the work to come in the next season by stating, "next year I will need to work harder." The Dokolo group said they felt "there is no reward for hard work."

Figure 4.3

Participant Photo 3: A woman weeding in her garden by hoeing the soil.



Technical Challenges

Beyond physical challenges, these women face many technical challenges in their farming. From germination, transportation, weather and pests to harvest, there barriers to their practical farming needs increase the level of difficulty to maintaining their livelihoods.

Germination, the beginning of the planting process, and the beginning of their practical issues in farming. Using her camera as a tool for communication, Hallie said she "took a photo to show the challenge [she] had with first-planting." Many women of

the group struggle with this issue, as Jan added she too has "been struggling with successful germination."

When the original planting does not germinate and therefore become a sellable or consumable product, they lose financial gain but still need to repurchase seed to attempt planting again. Hallie said she struggles because "buying seed is expensive when [she has] to rebuy from lack of germination." A participant noted there are challenges during harvest, as well. Once products are harvested, they often need to be physically moved to market to be sold. Participants noted there are often issues during or finding transportation.

Pests that destroy, and predators that consume are both notable and constant threats to the success of harvest, consumption and financial gain. Issues noted were birds destroying sunflowers an issue for multiple women, pests damaging soybean, and crops affected by both pests and diseases. This issue was notable enough for Cait to take a "photo of maize affected by worms that is a challenge," visible in Figure 4.4.

Figure 4.4

Participant Photo 4: Two women working in a garden with pest-damaged maize crop.



Ugandan weather is not always predictable and poses issues in both the timing in initial planting, and the success of planted seeds. Lack of rain was widely commented on among participants. Before they can plant, they must till the ground and prepare for seeds. This is a challenge because the "ground is hard because of no rain, making it hard to work", Gail said. Val said she feels there is "nothing [she] can do to help her crops that need rain." The unpredictability of the weather is evident when the Dokolo group consensed the rainy season started late, causing a late start in planting, thus affecting

their collective ability to begin farming at the time they wished to. Additionally, Jen said "harvest of ground nuts this time is not good because of little rain."

Even enough rain comes for the ground to be tilled, seed to be planted, and crops to grow, weather may alter causing more production issues as Val noted by stating her "soybean was about to flower, but without rain it began to wither."

Inclusion criteria for this theme was the mention of issues within agriculture skills, including physical elements, and barriers brought on by third-party challenges like pests, weather, and germination. Exclusion criteria for this theme was the mention of a skill or competency in agriculture sans the mention of a challenge or struggle.

Abstract Social Constructs

As evident through the basis of Feminist Theory, the prevalent emergent theme of abstract social constructs appearing in the findings. Participants discussed and detailed their duties, assigned to them by society due to their gender and societal role as women. These roles reveal a disparity between men's' and women's', responsibilities to family and income generation, issues with physical and financial abuse, and independent work completed by women, and the resulting self-identity as women-farmers.

Gender Inequities and Patriarchal Society

Because of their gender, participants identified disparities between their roles and responsibilities versus that of men in their lives. Women are not only responsible for the majority of cultivation, but home, childcare, and a host of other tasks. Additionally, their families look to them specifically as women for education, food, and income. Their physical and financial safety is not under their control either, as men often take control

of the finances; this issue is perpetuated with threat of physical violence without compliance.

Inclusion criteria for this theme is the mention of gender: a role as a woman, or because of a man, and responsibilities because of gender. Exclusion criteria for this theme was statements unrelated to gender.

Women Assume Primary Responsibilities.

Themes stated in both the introduction and literature in regard to Ugandan women's overall responsibility were heavily supported and continued by the discussion among participants. As is evident in the above themes, women participate heavily in the cultivation of their crops—but their uneven gendered responsibilities do not end outside of their gardens. Childcare, food preparation, and keeping of the home are some of the additional responsibilities participants stated as shouldered by women in the family.

"Women have many tasks," the Apac group consensed, continuing to agree that "cooking, fetching water, firewood, everything at home, thrashing, and harvesting is the work of a woman." Not only is their time taken up by the many activities assigned to them, but these duties fall on their shoulders because of their gender. The Apac group agreed, "women have many responsibilities at home." Bailey supported this in saying she is "Responsible for [her] child, garden and housework." The theme is strengthened the Dokolo group consensing that, "Women must cook, fetch water, raise kids—a lot of work as women."

Ruby said the prevailing societal norm is that "as a woman she should not just sit, she should be doing something."

Women feel they are the responsible individual for their families and specifically their children. The burden of productivity in the garden is furthered as their children look to them specifically for food, financial help, and education. Many women grow certain crops specifically to be their food at home to provide sustenance for their children.

The Apac group agreed, "children ask the mother about education," emphasizing this responsibility's gender as the father is not the one asked. This theme continues to reveal gendered nutritional responsibilities as the group consensed, "children ask the mother for food."

Figure 4.5

Participant Photo 5: A woman and her child processing ground nuts in the garden.



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The Apac group further articulated this reality: "as a woman, if there is no money, kids do not go to school and the problems come back to the woman."

Bailey said she knows, "[her] hard work helps [her] family." Val continued this theme of responsibility in that, "a good harvest means more food for home consumption and can sell for school fees." Pearl, "grows sweet potatoes because it can feed many in the home." Pearl also used her camera to show her responsibility for feeding her family by, "[taking] a photo of simsim as it is good for home consumption." Betty did this as well, and, "took a photo of ground nuts that [she] grind[s] into paste for her child to take and eat at school," as shown in Figure 4.5.

Figure 4.6

Participant Photo 6: A woman and child standing in a tilled garden.



Additionally, women feel responsible for their family's income. They must solve issues when harvests are not enough to feed a family, purchasing supplemental food, paying for their children's education. They make decisions on crops, not only to feed their children, but to generate revenue as well.

Val, and later the entire Dokolo group, stated plainly that they feel their family relies on them for income. Hallie said farming brings her income, supported by Val who stated, "farming is [her] means of survival and source of income." Hallie said, "farming brings [her] income to support her children in school and afford food for children."

Women said the crops they choose to grow, like soybeans, bring them money, as shown in Figures 4.6 and 4.7.

Figure 4.7

Participant Photo 7: A woman and man working in a garden of maize and soybean.



Bailey said "[she] chose to photograph maize and soybean because it is a good crop that can bring [her] income," as seen in Figure 4.7.

Inclusion criteria was responsibilities as women. Statements not related to responsibilities were excluded.

Physical and Financial Abuse.

Another sub-theme constructed by the social structure of Uganda is the physical and financial abuse women suffer from men, especially in regard to their farming and monetary control. Finances, as stated above, are a concern for women who feel responsible for their children's education and nutrition. The struggle greatly increases due to the challenges men impose on women over the control of money. Men often take this control by threatening or completing physical abuse.

Participants said men feel entitled to the financial gain in selling crops, even if they did little to contribute to the tilling, planting, production and harvest. The Apac group consensed, "men do little work and leave the rest of the work to the woman."

Pearl explained that men help in the garden in the morning but return home early and the rest of the work is left to the woman. The Apac group collectively agreed on the gender-bound disparity by saying, "if the woman sells her crop herself, the man will demand money from the sale."

Often times, women do the work to produce the crop and after it is harvested, "the man takes the harvest to market," said Bailey to effectively sell her production.

Once the crop is sold, it may even not make it back to aid the family the women are responsible for, confirmed by the Apac group who agreed, the man may misuse money from the sale. When asked if the women may try to keep their money, the Dokolo group agreed, "if a woman refuses to give money to the man it will bring domestic abuse."

Inclusion criteria for this theme was the mention of gender-based control and abuse and mentions of contributions to these issues. Exclusion criteria was the mentioning of men or males in regards other than gender-based issues and abuse.

Independence

As discussed above, gender poses a variety of inequities to the women of Uganda. Another emergent theme is the effect these gender-based discrepancies have on women. Firstly, they are more independent, resulting in a lack of help from their partners and others. This independence contributes to self-actualization, and an evident pride in their identity as women-farmers.

Independence often has a positive connotation, but within this theme we see two sides. One empowered, displayed in their photos and statements like Val saying she "wanted to show [herself] using an ox plow alone without help," and Gail stating, "[she does her] own work as a woman farmer without anyone helping her."

This independence and lack of help has negative effects as well. Jaime said "[she's] alone, with no money and can get defeated." The group also agreed that, "some women are depressed," due to the amount of work and responsibilities placed on them individually.

Inclusion criteria for this theme are mentions of independence, being alone, and the subsequent results of this independence, being lack of help, self-identity and actualization as a farmer, woman farmer, and pride. Exclusion criteria was gender-based issues, conflicts with men, or comments pertaining to agricultural skills or struggles.

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Figure 4.8

Participant Photo 8: A woman plows a garden independently with an ox plow.



Need for Help.

This independence is born from several factors, but one of them being a lack of help. Although one participant spoke of her positive experience with her husband, stating, "[her] husband helps with the crops and garden," the overwhelming majority said they felt the opposite in regard to help. Pearl said, "men help with the garden and go home to rest," although the women continue with their other responsibilities. Val said she is "not happy with the lack of help." Val continued to say getting help herself is costly: "when you can get someone to help you, you have to pay them." This results in

women "Struggling more to make ends meet because of the lack of help," the Dokolo group agreed.

Inclusion criteria for this sub-theme included mentions of help. If a statement did not include help, it was excluded.

Figure 4.9

Participant Photo 9: A woman working in the garden of maize with a hand hoe.



Visualization and Self-Actualization.

One of the strongest and most evident themes is supported by the focus group discussion, but also the visual phenomenon that all ten participants—half and half in completely separate villages—chose to photograph themselves, as shown in Figures 4.1

through 4.11. None of the women were instructed to do so, but all of them took photos (with the aid of each other) of themselves in their gardens, in their homes, with their crops and animals. When the women were tasked with picking their one to two representative photos, all 10 of them chose two photos, and each displayed themselves in the photo. This unanticipated, unified, theme among the photos sparked a larger discussion among the groups. Table 4.2 shows the number of photos each participant took, and the number of self-portraits she composed with help. Table 4.2 also identifies the percentage of self-portraits each participant took within her total number of photos. Lastly, Table 4.2 shows the number of photos each participant selected from their total amount of photos, as they had the choice to pick one or two, and the percentage of those photos that are self-portraits.

Table 4.2

Number of Photos and Self-Portraits Taken, and Selected

Total					
	Total	Self-	Percent of	T . 1 D1 .	Percentage of
Nome	Photos	Portraits	Self-	Total Photos	Selected Photos
Name	Taken	Taken	Portraits	Selected	as Self Portraits
Ruby	173	45	26	2	100
Hallie	131	57	44	2	100
Pearl	107	41	38	2	100
Cait	92	17	19	2	100
Bailey	90	36	40	2	100
Val	81	14	17	2	100
Violet	71	50	70	2	100
Jaime	44	30	68	2	100
Gail	41	15	54	2	100
Jan	28	11	27	2	100

The women verbally identified to me that they took photos of themselves performing various farming activities, using farming methods, working with animals, using an ox plow checking crops, displaying results of pests on their crops, and so on. When asked why they made the decision to photograph themselves, the Dokolo group responded, agreeing they, "wanted to show their struggles as women farmers by photographing themselves," and they "took photos of themselves to show challenges as a woman farmer." The group also said they, "wanted to show their gardens by

photographing themselves." Jaime noted she "took photos of herself to show what she does, her work, and what she does by herself."

Betty reflected on the method of using photography as a tool for displaying her farming, stating, "seeing her work in the photo makes her appreciate the work she is doing."

Inclusion criteria for this sub-theme was the mention of photographing oneself, the visualization or identity of oneself, or the participant mentioning showing a task or skill. If an incident lacked the mention of the participant showing, taking a photo of, photographing herself doing something, etc. it was excluded from this theme.

Figure 4.10 Participant Photo 10: A woman checking her sunflower crop in the garden.



Pride in Self-Identification.

A separate, but heavily related theme to the previous is the evident pride the overwhelming majority displayed in their self-identification as farmers, and more specifically women-farmers. They used their photos to display themselves as farmers, as Pearl said her "photo shows [she] is a farmer." When asked what their photo meant to them, multiple responded that they wanted me to know they were farmers, and more responded that they are women-farmers. They were proud to display the actualization of their farming. Cait stated she "wanted to show [me] methods used in farming." Cait also said she, "wanted to show herself as a farmer preparing land," and that she, "wanted to show [me] that women can also do farming."

Ruby used photography to display the grandeur in which she produces her crop by stating the "photo shows she is a farmer who grows sunflowers on a big scale."

Ruby also made her camera a communication tool, stating "photo shows she is a woman farmer, concerned about her garden who wanted to check anything that might be wrong."

Jan said her responsibility as a woman-farmer has great rewards, as "she feels happy that after the struggles, the children can eat, go to school, have clothes and she can provide."

Inclusion criteria for this theme was the mention of pride, appreciation or identity. If the incident did not include self-identification or pride, it was excluded from this theme.

Figure 4.11

Participant Photo 11: A woman poses with her sunflower crop in the garden.



CHAPTER V

CONCLUSIONS AND RECOMENDATIONS

In this chapter I will discuss the findings from the results of this study, and their implications to stakeholders. I will also discuss my recommendations based on these conclusions as it pertains to future research, improvements in education, and international agricultural development practitioners.

The purpose of this study is to explain gender-based issues of Ugandan women agriculture producers, because women in Uganda face challenges due to the patriarchal nature of their culture.

Conclusions

Aim 1

Aim one of this study was to define Ugandan gender-based agriculture issues from the perspective of female Ugandan agriculture producers. Through the analysis of this photovoice, I found that Ugandan women agriculture producers face many challenges, including those caused by gender-issues. This confirms issues identified in the literature (Doss, et al., 2014; Kasante 2002; Killic et al., 2015; Kristjanson et al., 2017; Palacios Lopez & Lopez, 2015).

Ugandan women face challenges due to a lack of resources, land and education (Jafry & Sulaiman, 2013; Mukasa & Salami, 2016; Uduji, et al., 2018; Collins, 2015; Doss, 2018; Sharaunga et al., 2015) contributing their suffering from technical challenges in agriculture, and physical fatigue, as evident in the emerging themes of this study. Thus, we conclude that gender-based challenges compound existing foundational

and technical challenges faced in participants' agricultural pursuits. Factors like weather, predators, pests and general physical fatigue from work are putting them at a predisposition disadvantage to productive agriculture practices. Although men also face these challenges, women are disadvantaged in overcoming them due to lack of access to institutional resources, educational assistance, and legal standing afforded to men.

Ugandan women need education, training, resources, and extension services to better help them in eliminating these challenges and bridging the gender production gap.

RQ1.

RQ1 of this study aimed to investigate how Ugandan women see their role within agriculture. As evident in the emerging themes, I can conclude that women in this study view their role as agriculture producers holistically, and with majority responsibility, confirming the literature in Palacios-Lopez, et al. (2015). They self-identify as farmers and are proud to be known as such. Women view their role as producers as providers for their children; they keep their families fed and produce income that contributes to their children's education. Women identify as farmers. Evident through the emergent theme visualization and self-actualization, participants wanted to show themselves as womenfarmers. Through gender-based adversity and fundamental challenges, women still view their role as agriculture producers as part of their self-identity. Through the emergent theme of independence, we can see women feel individualized by their self-identity, and that their independence is inextricable to who they are as women-farmers. Pride and ownership are often themes that emerge due to the empowering nature of photovoice (Wang & Burris, 1997). Through the pride in self-identification, evident in the

participant's photos and words, we can conclude they take a deep sense of pride in what they do. Through adversity, they preserve. Therefore, this is a resilient and resourceful population that would be receptive to aid in the form of education, resources, and extension. Efforts to help these farmers would not be wasted, as their pride in production and responsibility to provide are key motivators in their identity as farmers.

RQ2.

RQ2, aimed to discover how women face gender-based challenges within agriculture. Through the resulting themes of this study, the issue of gender is concrete. Women faced gender-based issues at home confirming issues noted in the literature (Doss et al., 2018; Nelson et al., 2012) assuming responsibility majority in the eyes of their children, paying for education, providing food, and a host of other tasks. They face additional personal responsibilities as women that affect their abilities to perform in the garden. They feel responsible for their children, family income, and other household duties. These tasks and responsibilities burden women with a gender-based inequity between them, and their male counterparts as noted in Nelson et al. (2012). Once in the garden, men help with production, but often leave the garden early and leave more work to the women. Women are motivated to produce in the garden because of the responsibilities at home to feed and use income to pay for their children's schooling. This is presented with more gender-based challenges, as women often do not retain control over the income generated from agricultural production. Men associated with the production take control over the funds once harvest is sold for profit—with the threat of physical violence preventing women from retaining these controls.

Aim 2

Aim two is to make recommendations for improvements in policy based on this evaluation. Based on the input of the participants, I will offer recommendations to FOH, regional and local NGOs, and make recommendations to the broader development community through dissemination of scholarly outputs to build awareness and work toward policy change.

RQ3

Based on this aim, RQ3 investigated what struggles and problems within agriculture Ugandan women face. Through emergent themes, we can see that women face many challenges within their agriculture production, but gendered and genderless.

Firstly, women face fundamental challenges in agriculture. Themes of physical skills and fatigue, and technical challenges detail these issues. Women are completing vastly manual labor to produce their products. There is a lack of technological advancements and developed agricultural practices that perpetuate this problem, leaving farmers fatigued and less able to tackle other challenges. Technical challenges such as pest and predator damage, germination issues, and weather unpredictability are a lack of education and resources in preventative measures. There is a lack of research connecting these technical agricultural issues with Ugandan women in previous research and literature. This is likely due to the lack of both research and extension as noted by Satyavathi et al. (2012).

Secondly, women face gender-based issues, from the garden, home, disparity in responsibilities, income control, and threat of male physical violence. As evident through the abstract social construct emerging theme, women face challenges due to the

nature of their patriarchal society. The first of these being their responsibilities as women in the home, to their families, and providing income. These are factors that all revolve around their problems in agriculture, due to the nature of how central agriculture is to every other facet of their life. As evident in the physical and financial abuse subtheme, women who push back against these gendered realities face violence. This threat, coupled with women's inherent responsibilities that push them to provide for their families, continues a vicious circle of abuse. There is much literature surrounding disparities in agricultural resources and production based on gender (Collier, 1988; Collier 1994; Doss, et al., 2014; Haddad et al. 1995; Kasente et al. 2002; Sengooba 1996; Tumusiime, 1996) however, there is a gap in research evident through little literature explaining and understanding gender-based violence as a threat to financially control Ugandan smallholder farmers.

RQ4

RQ4 investigated how improvements should be made based on the problems found within the study. The two emerging themes of the study were agronomic knowledge and competencies and gender inequities and patriarchal society. The duality of these themes is crucial in answering this research question.

While gender may not be excluded from all aspects of agronomic knowledge and competencies, these themes emerged due to challenges the participants faced and knowledge developed as farmers. Therefore, improvements based on these themes should address agriculture and its subsequent issues as a competency, skill, and technique that requires help and improvement.

Gender inequities and patriarchal society as a wholistic theme is based on gender issues. Therefore, improvements to the subsequent issues must be viewed and implemented through a lens that takes gender elements into consideration.

Recommendations

Research

Within Aim 2, RQ3 conclusion of cyclical domestic abuse was evident. Women discussed their reality of responsibilities in juxtaposition with their lack of financial control due to the threat of physical violence. As Satyavathi et al. (2010) noted, there is a deep lack of research on women agriculture producers in developing countries; Based on the conclusion evidence in this study, and cited lack of research, I propose more research efforts be made on understanding domestic and physical violence as a threat within cultures similar to Uganda. A better understanding of the complexities within these cultures and violent gender issues must be made. To follow a better overall understanding, I recommend research on *how* to implement domestic violence prevention in societies and cultures within developing countries. The institutional patriarchal society is more overwhelming in societies such as this, therefore current research and techniques applicable to more developed countries with less patriarchal issues are less applicable to that of these countries and cultures.

Recommended sample questions to investigate include: How does a patriarchal society influence the presence of gender-based violence as a tool for control? What differences in culture influence women's ability to escape gender-based or domestic

violence? How can cultural differences be used as a tool for sparking change in patterns of violence-based gendered control?

Through this study we see a strong sense of responsibility and self-identification within the population. Through literature, we know issues women in developing countries have are similar—through lack of extension help and gender-based problems. Therefore, I propose this study be replicated on similar populations in alternate countries and cultures to explore and explain said population's issues, the similarities, and the differences between those populations and the population of this study.

Additionally, there is a lack of specificity within the research aims of The American Association for Agricultural Education (AAAE) 2016-2020's National Research Agenda to explore and explain issues in countries outside of the U.S., including the population within this study. Therefore, I recommend AAAE alter its research aims and agenda to encompass problems within developing countries. The agenda discusses aims to aid "vibrant, resilient communities" (Rogers et al., 2016, p. 49) from around the world, and eliminate America-centric language. A research question in this priority is "How do agricultural leadership, education, and communication teaching, research, and extension programs impact local communities?" (Rogers et al., 2016, p. 51), and I recommend the questions and aims include communities in need across the globe.

Through this study we gained insight into the women's perspective within this community. Men within these communities were found to contribute to the gender-based challenges women experience. Therefore, I propose research be done on the men within

these communities to further investigate what approaches would be best to develop strategies to eliminate gender issues within these communities.

Education

Education is continuously evolving with the discovery of new research and implementation of new practices. Agricultural education grows and evolves as well, doing so in a myriad of areas within the discipline. International development within the realms of agriculture education seeks to end the need for itself with the goal of helping to produce developed societies (USAID, n.d. a). Education is vital to development, as it is the driver, and seeks to achieve self-reliance (USAID, n.d. a). Education is transformational. It gives individuals and societies "pathways to better health, economic growth, a sustainable environment, and peaceful, democratic societies," (USAID, n.d. a).

Therefore, the need for improvements in international development education through research is evident. International development education would improve by continuing to further curricula in gender-based agriculture issues. Because international development education programs produce individuals who may conduct research, continue education, and perform extension, it is vital to include gender issues such as the results of this study. Firstly, I recommend trainings and/or modules for gender-based issues be created: how to recognize gender-based disparities; how to identify instances that host gender-based violence, and financial control; and how to prevent or eliminate unintentional support of domestic issues, and violence towards women. Secondly, I recommend the trainings and/or modules be checked with a pilot test to ensure validity. And lastly, I recommend these trainings be implemented in the curriculum educators in

international development, extension practitioners and NGOs utilize. I recommend we create modules of education.

Practitioners

Aim 2 targets recommendations for improvements based on the evaluation of this study. Within Aim 2, RQ3 focused on the struggles and problems women face within agriculture, which included physical and technical issues. With extension being targeted at men (Satyavathi et al., 2010), it is important that this change, and women receive adequate extension training to overcome these issues. In RQ3, we concluded that women would make excellent candidates for extension trainees. Their pride, sense ownership, and familial responsibilities act as key motivators. Therefore, extension training in germination aid, weather predictability and accommodation, pest and predator prevention, and other practical skills would make a great impact on their individual productivity and collective abilities as women farmers.

Additionally, within this RQ, we concluded there are inherent issues with physical and financial domestic abuse. Women will continue to be stuck in this cyclical issue without help. Therefore, I recommend extension efforts, in Uganda and other patriarchally cultured developing countries, extend to domestic abuse training and prevention.

Because all 10 participants cited FOH as the entity to which they want these findings presented to, I specifically recommend FOH alter its policies to include and emphasize trainings framed with the themes of self-identity, actualization and, pride. I recommend FOH incorporate elements of identity into previously established

smallholder trainings to educate women on the technical skills they need for practical issues, and frame those lessons in a manner that embraces, celebrates, and encourages the pride in farming Ugandan women possess.

Summary

This study discovered women farmers in Uganda face a myriad of issues that build upon one another to create a wall of seemingly impenetrable challenges. Starting with a foundational lack of agricultural resources and practical solutions for their technical problems, compounded by historical gender inequality, these women farmers struggle with germination, crop growth, and harvest. They endure physical challenges, increasing the difficulty of this problem. This issue is coupled with their lack of help in production and multiplied by their financial and familial responsibilities. Women agriculture producers in Uganda are socially charged with cooking, caring, and financially supporting their children. These burdens, tasks and responsibilities face a greater threat: gender-based violence. Men use domestic abuse as a threat to control finances, and the behavior of women. And through all of this, I found that these women are resilient and proud. I found strong evidence of unity through self-identification as farmers. That identification is integral to the participants of this study, and women like them. It is a platform for growth through technical training, to solve their foundational agriculture issues. The pride of these women is driven by the responsibility to grow a successful crop to feed, clothe, and educate their children. This source of power within the participants of this study would fuel successful extension efforts to train them in agriculture technologies and strategies.

As I found efforts to understand and further prevent the gendered cultural structure that invokes violence as a tool for control as a vital need, we must continue to proliferate not only sustainability in agriculture, but social justice. Women smallholder farmers must be empowered and unified by their independence and collective voices; for together, they are louder. It is essential that we be inspired by the multifaceted challenges these women overcome daily, because they are the faces of agriculture and the backbone of their country. Lastly, we must encourage and recognize these women for their striking efforts and adept prowess at providing for their families, communities, and the world.

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APPENDIX A

INTERVIEW QUESTIONS

What is in this photo?

What does (identified photo-content) mean to you as a woman farmer?

What do you see here?

What is happening here?

How does this relate to our lives?

Why does this situation, concern, or strength exist?

What can we do about it?

APPENDIX B

INCIDENTS BY THEME

Agronomic Knowledge and Competencies

Varied Agriculture Practices

- Relate to one another through use of ox plow for plowing
- Wanted to show the cultivation of sweet potatoes
- Photographed herself harvesting soybeans
- Took photos of her groundnuts
- Took photos of her crops
- Photo of her sunflowers
- Photo of her sunflowers
- Weeding Maize in the photo
- Simsim helps her for home consumption
- Wanted me to see how they harvest Simsim
- Photo shows simsim brought home from the garden, drying
- Took photo of her groundnuts
- Took photo of her sweet potatoes
- Maize and Cassava grown, intercropped
- Took photo of her Cassava
- Took Photo of her Soybeans
- To begin planting, she begins with the ox plow
- Wanted to show ox plow method of farming
- Cannot plant without an ox plow
- Weeds for a good harvest

Practical Skills and Fatigue

- After completing so many tasks, you feel tired
- Feel there is no reward for hard work
- Use a person to scare away birds from the garden
- Next year I will need to work harder
- Wanted to show how she farms using a hand hoe
- Ox Plow in photo
- Ox Plow tilling the garden

Women Face Technical Challenges in Agriculture

- Took a photo to show the challenge she had with first planting
- They have been struggling with successful germination
- Buying seed is expensive when she has to rebuy from lack of germination
- Challenges during harvest
- Challenges during transportation
- Birds destroy sunflowers
- Pests have been damaging soybean
- Birds destroy sunflower seeds
- Crops affected by pests and diseases

- Took a photo of maize affected by worms that is a challenge
- There have been many pests and disease
- Nothing she can do to help her crops that need rain
- Rainy season started late, causing a late start in planting
- Harvest of G-nuts this time is not good because of little rain
- Ground is hard because of no rain, making it hard to work
- Soybean was about to flower, but without rain it began to wither
- Crops affected by sunshine
- Took a photo to show the challenge she had with first planting
- They have been struggling with successful germination
- Buying seed is expensive when she has to rebuy from lack of germination

Abstract Social Constructs

Gender Inequities and Patriarchal Society

Women Assume the Majority Responsibility.

- Cooking, fetching water, firewood, everything at home, thrashing, and harvesting is the work of a woman
- Women have many tasks
- Responsible for child, garden and housework
- As a woman she should not just sit, she should be doing something
- Women must cook, fetch water, raise kids -- a lot of work as women
- Women have many responsibilities at home
- Women ask the mother about education
- Children ask the mother for food
- A good harvest means more food for home consumption and can sell for school fees
- Took photo of sim sim as it is good for home consumption
- As a woman, if there is no money, kids do not go to school and the problems come back to the woman
- Grows sweet potatoes because it can feed many in the home
- Took a photo of ground nuts that she grinds into paste for her child to take and eat at school
- Her hard work helps her family
- Farming brings her income to support her children in school and afford food for children
- Soybeans bring money
- Family relies on her for income
- Farming brings her income
- Farming is her means of survival and source of income
- She chose to photograph maize and soybean because it is a good crop that can bring her income
- Family relies on them for income

Physical and Financial Abuse.

• If a women refuses to give money to the man it will bring domestic abuse

- Men do little work and leave the rest of the work to the woman
- Man takes money from the sale
- If the woman sells her crop herself, the man will demand money from the sale
- Man takes the harvest to market
- Man may misuse money from the sale

Independence

Lack of help.

- Men help with the garden and go home to rest
- When you can get someone to help you, you have to pay them
- Not happy with the lack of help
- Struggle more to make ends meet because of the lack of help
- Husband helps with the crops and garden
- Cannot afford help causes independent workload
- Wanted to show herself using an ox plow alone without help
- She is alone, with no money and can get defeated
- Some women are depressed
- She does her own work as a woman farmer without anyone helping her

Visualization of Self-Actualization.

- Took photo of herself digging in the garden
- Wanted to show their struggles as women farmers by photographing themselves
- Took photo of herself in her sunflower garden
- Took photo of herself weeding soybean
- Took photo of herself checking sunflowers
- Took photo of herself checking soybean garden
- Took photo of herself weeding cassava
- Took photo of herself picking ground nuts
- Took photo of herself heaping sweet potatoes
- Took photo of herself weeding
- Took photo of herself using an ox plow
- Took photo of herself with an ox plow
- Took photo of herself to show what she does, her work, and what she does by herself
- Took photo of themselves to show challenges as a woman farmers
- Took photo of herself using an ox plow
- Took photo of herself weeding
- Took photo of herself weeding
- Took photo of herself planting potato vines
- Took photo of herself weeding her garden and crops
- Took photo of herself planting and replanting sunflowers
- Wanted to show their gardens by photographing themselves

Pride in Self-Identification.

- She is a farmer
- Perseverance is vital to life
- She is a woman farmer

- Wanted to show that women can also do farming
- Wanted to show methods used in farming
- Wanted to show herself as a farmer preparing land
- Photo shows she is a farmer
- She feels happy that after the struggles, the children can eat, go to school, have clothes and she can provide
- Photo shows she is a woman farmer, concerned about her garden who wanted to check anything that might be wrong
- Showed she is a woman farmer through her photos
- Showed she is a real farmer through her photos
- Photo shows she is a farmer who grows sunflower in a big scale
- Wanted people to see and know she is a farmer
- She is a woman farmer
- She is a farmer
- Seeing her work in the photo makes her appreciate the work she is doing

APPENDIX C

IRB APPROVED CONSENT FORM

DIVISION OF RESEARCH



APPROVAL OF RESEARCH Using Expedited Procedures

(Common Rule – Effective January 2018)

September 25, 2019

Type of Review:	Submission Response for Initial Review Submission Form		
Title:	Photovoice of Gender-Based Agriculture Issues in		
Title.	0 29 a		
	Uganda		
Investigator:	Tobin Redwine		
IRB ID:	IRB2019-0457D		
Reference Number:	091675		
Funding:	Center on Conflict and Development(CONDEV)		
Documents Approved:	Translated Consent Document - (Version 1.0)		
*copies of stamped approved	SpenceConsent - (Version 1.0)		
documents are downloadable	Meeting Script (Group Discussion) - (Version 1.0)		
from iRIS	Prompt Questions - (Version 1.0)		
	Recruitment Materials/Script - (Version 1.0)		
	Photovoice Methods Script - (Version 1.0)		
Special Determinations:	Written consent in accordance with 45 CF 46.116/21 CFR 50.27		
Risk Level of Study:	Not Greater than Minimal Risk under 45 CFR 46 / 21 CFR 56		
Review Category:	Category 6: Collection of data from voice, video,		
	digital, or image recordings made for research		
	purposes		
	Category 7: Research on individual or group		
	characteristics or behavior (including, but not limited		
	to, research on perception, cognition, motivation,		
	identity, language, communication, cultural beliefs or		
	STANCIS OF STANCE OF STANCE OF STANCES OF ST		
	practices, and social behavior) or research employing		
	survey, interview, oral history, focus group, program		
	evaluation, human factors evaluation, or quality		
	assurance methodologies		

750 Agronomy Road, Suite 2701 1186 TAMU College Station, TX 77843-1186

Tel. 979.458.1467 Fax. 979.862.3176 http://rcb.tamu.edu

DIVISION OF RESEARCH



Dear Tobin Redwine:

The IRB approved this research on 09/18/2019.

Before 08/17/2020, you are to submit an Administrative Check-In Form to the HRPP/IRB. If the HRPP/IRB does not receive the form, there will be no approval of new research after 09/17/2020.

In conducting this research, you are reminded of the following requirements:

- You must follow the approved protocol;
- Any changes to the research must be submitted to the IRB for review and approval prior to implementation;
- Unanticipated problems or other reportable events (including protocol deviations) as
 described in "HRP-029 Reportable New Information" must be reported to the IRB within
 5 working days of learning of the incident;
- You must notify the IRB of study completion.

If you have any questions, please contact the IRB Administrative Office at 1-979-458-4067, toll free at 1-855-795-8636.

Sincerely, IRB Administration

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