

**GENDER EQUITY AND HOUSEHOLD PARTICIPATION IN NATIONAL
AGRICULTURAL ADVISORY SERVICES AMONG FARMERS
IN KOMAMBOGA PARISH, KAMPALA
DISTRICT, UGANDA**

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**MASTERS OF BUSINESS ADMINISTRATION
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SEPTEMBER, 2016

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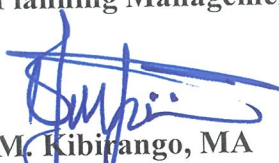
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I, **BALABA TUMUHAIRWE ANGELA**, to the best of my knowledge and understanding do hereby declare that this thesis entitled, '**GENDER EQUITY AND HOUSEHOLD PARTICIPATION IN AGRICULTURAL ADVISORY SERVICES AMONG FARMERS IN KOMAMBOGA PARISH, KAMPALA DISTRICT, UGANDA**' is my original work and has not been presented in any higher learning institution for an academic award.

Signed.....*Balaba*.....

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DEDICATION

This thesis is dedicated to my boy Trevor (Skiti Mooti), who missed my care and love, as I burnt the candle and the many friends who understood me more than I did and made the long days of reading bearable!

BIOGRAPHICAL SKETCH

The author of this thesis is daughter of Mr. Jovan Baraba and Mrs. Beatrice Braba. She is the third of six children.

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ACKNOWLEDGEMENTS

Firstly, I would thank the Almighty God for enabling me to come this far in my education, honor and glory I give unto Him.

I give my sincere gratitude to Dr. John Amoah, Dr. Specioza Asiimwe and Dr. Abuga, who have been going through my work and guiding me to come up with a worthwhile piece of work. May the Almighty God bless them abundantly.

I also would like to appreciate all those who have helped me in one way or another to make this work achievable. Thank you very much.

I would like to thank my respondents for providing me with necessary information during my field work. Indeed, without them I would not have managed to finish this work. God bless them.

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ABSTRACT

BALABA TUMUHAIRWE ANGELA, School of Graduate Studies, Bugema University, Kampala - Uganda. July, 2016. **‘GENDER EQUITY AND HOUSEHOLD PARTICIPATION IN AGRICULTURAL ADVISORY SERVICES AMONG FARMERS IN KOMAMBOGA PARISH, KAMPALA DISTRICT- UGANDA’**

ADVISOR: Abuga Isaac Mukono, Ph.D.

The study assessed ‘gender equity and household participation in agricultural advisory services among farmers in Komamboga parish, Kampala district, Uganda’. The study objectives were: to determine the level of gender equity in accessing agricultural advisory services in Komamboga Parish, examine the level of household participation in agricultural advisory services in Komamboga and establish the relationship between gender equity and household participation in agricultural advisory services in Komamboga Parish.

The study was descriptive-correlational in nature with qualitative and quantitative approaches. A sample of 80 respondents was used and key informants were interviewed from NAADS. The questionnaire, interview guide and documentary analysis were used to gather data.

Gender equity and household participation in agricultural advisory services was found to be moderate with ($\bar{x} = 3.21$; $SD = 1.274$). The level of household participation to agricultural advisory services in Komamboga was found to be high ($\bar{x} = 3.53$; $SD = 1.173$), there was a moderate level of usage of agricultural advisory services in Komamboga. There was a significant relationship between gender equity and household participation in agricultural advisory services, ($r = 0.369$, $p = 0.001$).

CHAPTER ONE

INTRODUCTION

Background of the Study

Gender equality, also known as sex equality, gender egalitarianism, sexual equality, or equality of the genders, is the view that everyone should receive equal treatment. Gender inequalities are often the result of discriminatory beliefs and practices that restrict women's (or men's) full participation in agriculture and the terms and conditions of their participation (FAO, 2011). Therefore, gender equality in farming system involves taking on distinct responsibilities for particular tasks, crops and livestock (Farnworth, Sundell, Nzioki and Shivutse, 2013). Extension and advisory services intervention is therefore shaped by gender relations. The effectiveness of these services depend on the degree to which the agricultural sector has acknowledged and worked with gender relations as part of a wider systemic approach to improving agricultural and development outcomes (OECD, 2010). Researchers and practitioners argue that household participation in agriculture is a process that calls for empowering women and men through agricultural extension and advisory services to promote successful farming (Farnworth *et al.* 2013).

In Central America, women comprise of more than 50% of the work force in the agricultural sector and spend an average of four hours a day on agricultural activities. Women comprise about 43% of the agricultural labour force in developing countries, ranging from 20% in Latin America to 50% in sub-Saharan Africa and East Asia (Quisumbing, Meinzen, Raney, Croppenstedt, Behrman and Peterman, 2014).

Participatory processes enable people to see more clearly, and learn from the complexity that they are living and working amid. Through participation people can identify opportunities and strategies for action, and build solidarity to effect change (World Bank report 2010). Participation is an essential ingredient of gender-responsive, participatory and agricultural development policies. Women and men need to be empowered so that they can take development into their own hands (FAO, 2011).

Unfortunately, however, the situation seems to be that women farmers neither receive agricultural advisory services they need to perform these critical roles nor receive due rewards from their contributions (Quisumbing et al., 2014). At best they have been conveniently side-stepped by most capacity building programmes, including the agricultural advisory service delivery, as well as lack of equal access to the resources and opportunities like their male counterparts (Quisumbing et al., 2014). Consequently, by default, men dominate both provision and usage of extension services.

According to the literature, unequal gender norms along with the women's socio-economic situations have been attributed to women's inequality in Africa. For instance, Sanginga and Woomer (2009) found that African women are less likely to implement farm technologies and are often misdirected when they do not acknowledge the inherent disadvantages they face. They argue that both traditional value systems and their modern distortions force women to become household providers rather than income earners, in large partly because men retain control over cash crops despite women's help in their production".

Studies indicate that sexual division of labour which artificially separates men and women on the basis of social notions such as culture, traditions, gender roles and responsibilities causes gender-bias and thus promotes male dominated farming (FAO,

2011). In the Sub-Saharan African the available evidence shows that although women have a multi-faceted roles in farming, men are considered the lead farmers with commercial interests as compared to women who are primarily interested in feeding their household (Pretty, Toulmin and Williams, 2011). Agricultural research and advisory services therefore are limited to men, whereas women are not provided with extension interventions and appropriate information.

A World Bank study conducted in Burkina Faso, Kenya, Zambia and Tanzania showed that providing women farmers with the same quantity and quality of inputs that men typically receive - such as fertiliser, land and labour, and improving their access to agricultural education services - could increase national agricultural output and incomes by an estimated 10-20% in each country (World Bank, 2009).

Gender is crucial, if poverty impacts of Poverty Eradication Action Plan are to have adequate results. The Ugandan government has tried to address gender issues, through different programmes. Some of the ways the government has put in place to empower the farmers from a gender perspective include Plan for Modernisation of Agriculture (PMA), empowerment of communities to demand services and farmer organisations as well as wealth creation. However, despite NAADS empowerment the issue of disparity and woman participation in agricultural extension services has still remained low. Gender dimensions of access to extension of agricultural advisory services and utilization need to be investigated, in order to help the farmers increase their agricultural productivity (Ministry of Finance, Planning and Economic Development, 2011). Although, gender is essential in understanding why there are differences in adoption and usage of agricultural advisory services, there is need to underscore, the factors contributing to such scenario like gender roles that is headship, responsibilities,

whereas the social factors like culture and decision making process hinder women participation. Uganda agricultural sector has faced a lot of challenges in this decade, which includes low productivity that has been attributed to climate change as well as poor functioning farmer extension linkages, and failure of extension systems, to respond to the real needs of the farmers (NAADS Master Document, 2013). The prevailing situation is despite the government input through NAADS principle of empowering farmers and building capacities and agricultural advisory services (Oketch, 2010).

Furthermore, it has been reported that pluralistic extension services have hardly targeted women farmers as many advisory services programs have tended to be mostly concentrated on productive activities dominated by male farmers (Swanson and Rajalahti, 2010). Unbalanced access to these services has seen the persistent inequality in income generation and this leaves the women very dependent on their husbands. The researcher is therefore concerned why despite the existence of NAADS program which was intended to provide both women and men equal access and knowledge about Agricultural Advisory Services has not entirely addressed the gender equity and household participation among the farmers in Komamboga Parish, Kampala District.

Statement of the Problem

Little has been done to address gender disparity in participation of Agricultural Advisory Services. NAADS provides advisory and information services ensuring that women are fully engaged in groups to receive the necessary training as well as empowerment skills. However, few households are in such groups. Despite some evidence of increased attention by government through National Agriculture Advisory Services (NAADS), NGOs, bilateral and multi-lateral agencies to securing access for

women to extension and advisory services (Manfre *et al.* 2013; Ragasa *et al.* 2013; FAO, 2010; World Bank 2008a; World Bank 2008b) households still have low incomes and there is gender disparity in Uganda. NAADS programs have been running in Komamboga parish since 2001, whereby there are poor farming practices as well as low productivity. Similarly, Komamboga Parish, Kampala District remains persistently out of reach.

Women in Komamboga often experience weaker access to productive resources and decision-making power within the household. Similarly, cultural norms affected their participation in community level decision-making bodies, in value chain networks, and in innovation platforms. They are less often reached by extension and advisory services and this makes it difficult for women to implement the NAADS programmes and to act on recommendations offered by agricultural and extension workers.

Since there is no considerable research that has been conducted which highlights the significance of gender equity and household participation in agricultural advisory services among farmers in Komamboga Parish, Kampala District. The researcher therefore, sets out to research on gender equity and household participation in agricultural advisory services among farmers in Komamboga Parish, Kampala District (Kyanja-KCCA model farm documents-2014).

Research Questions

1. What is the level of gender equity in accessing agricultural advisory services in Komamboga parish?
2. What is the level of household participation in agricultural advisory services in Komamboga?

3. What is the relationship between gender equity and household participation in agricultural advisory services in Komamboga?

General Objective

The general Objective of this study was to examine the relationship between gender equity and household participation in agricultural advisory services among farmers in Komamboga Parish, Kampala District, Uganda.

Specific Objectives

1. To determine the level of gender equity in accessing agricultural advisory services in Komamboga Parish.
2. To examine the level of household participation in agricultural advisory services in Komamboga.
3. To establish the relationship between gender equity and household participation in agricultural advisory services in Komamboga Parish.

Hypothesis

There is no significant relationship between gender equity and household participation in Agricultural Advisory Services among farmers.

Significance of the Study

The study may help Agricultural Advisory Services to design gender responsive programmes that can equitably be accessed by both women and men.

The research findings of the study may also help Ministry of Agriculture Animal Industry and Fisheries to devise policies that may increase gender inclusion in advisory service delivery.

It is anticipated that the study may help the future researchers appreciate the limitations and challenges associated with the gender equity and household participation in agricultural advisory services among farmers in Uganda.

Non-Governmental Organisations (NGOs) may also use the gaps found to further help the communities address the gender social factors.

The farmers may benefit from the improved Agricultural Advisory Services which are gender sensitive thus increasing their farm output.

This study may further change the perspective of looking at farmers as beneficiaries to users and clients thus making them play a much larger role in controlling NAADS and own the system making it more demand driven including committing farmers to specific responsibilities within the NAADS.

Scope of the Study

The study was carried out in Komamboga Parish, Kawempe Division, Kampala District, and 10km north of the capital city. Komamboga Parish was chosen because it was one of the areas where NAADS activities were carried out under KCCA model farm.

The study was limited to how gender equity influence household participation in agricultural advisory services among farmers. The study covered Agricultural advisory services under NAADS activities from 2010-2014. NAADS was chosen because NAADS is the agency charged with the responsibility of increasing farmer access to information,

knowledge and technology through effective, efficient, sustainable and decentralized extension with increasing private sector involvement in line with government policy.

Limitations of the Study

The research was limited to descriptive research design which utilized qualitative and quantitative approaches. The two approaches had challenges in balancing the analysis in terms of describing the specific phenomena as well as quantify such a situation to make conclusions. Therefore, analyzing the relationship among the variables that was gender equity and household participation in agricultural advisory services might be limited to provide a clear picture. However, the supplements made from the documentary analysis, interviews as well as questionnaire provided the necessary remedy for interpretations.

The use of a limited number of respondents would also be a challenge for generalizing the findings. However, since the respondents were those who had accessed NAADS services they provided a clear picture of what was on ground.

Theoretical Framework

This study was based on Liberal Feminism Theory. Liberal Feminism is rooted in the tradition of 16th and 17th century liberal philosophy, which focused on the ideas of equality and liberty (Wollstonecraft, 1792). Western Feminist Theorist, Wollstonecraft argued, that women's capacity to reason is equal to that of men and that biological sex differences are irrelevant in granting any rights (Wollstonecraft, 1792). She argued that the reason women appeared to be intellectually inferior was due to their inferior education and therefore, was a result of inequality, rather than justification for it.

Liberal feminist see women subordination as resulting from gendered norms, rather than biological sex, and aim to change these norms. Liberal feminists focus on equal opportunity for men and women in education and all spheres of life. The proponents of this theory contend that the same education provided to a man will allow a woman to assume responsibility for her own development and growth. Unless society provides equal education with the same civil liberties and economic opportunities a man has, a woman will exercise her hard won autonomy only within the private or domestic realm. Despite the fact that several policies on affirmative action are in place, women are still lagging behind in all aspects. In this respect, NAADS can be analysed to assess gender inequalities by looking at the norms, practices, rules, activities, people, resources and power. It can then be possible to establish how gender differences arise among farmers while using agricultural advisory services.

Conceptual Framework

Figure 1 shows the conceptual framework of the study. Gender Equity such as gender roles and social beliefs were the independent variables, whereas household participation in agricultural advisory services was the dependent variables. It is assumed that the gender type (sex), the gender roles and social beliefs dictated by gender type influence access to and use of agricultural advisory services (UBOs, 2006). For instance, it is argued that being a woman, having a family or having limited interaction with that agricultural extension officers affect one's ability to participate in agricultural advisory services like training, improved technology and production support.

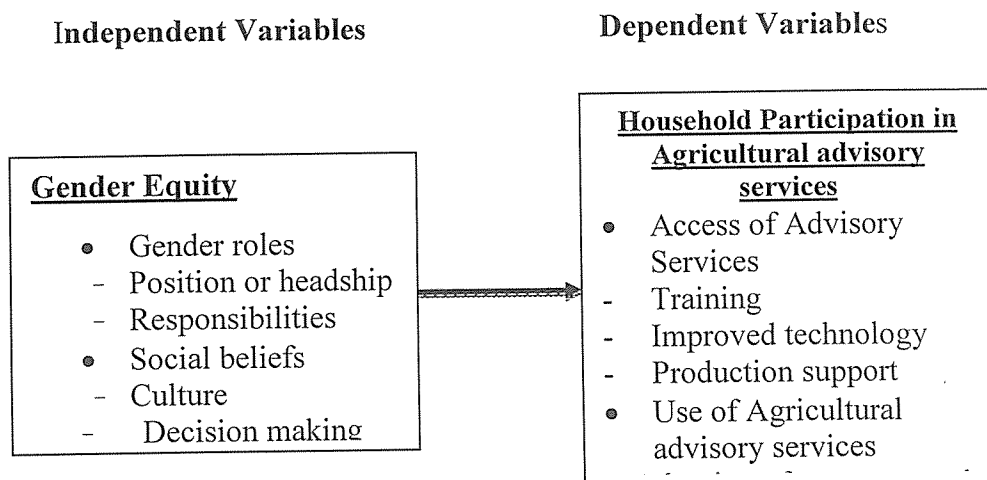


Figure 1: Conceptual framework

Operational Definitions of Terms

Advisory Services: In this study meant the provision of guidance to farmer groups with regard to the operation and management of their farming enterprises.

Access to: In this study meant the opportunity or ability to obtain and use available services which are within the vicinity of a potential user. In this study access to advisory services was measured by use of the five Likert mean range scale that was interpreted as strongly agree = 5 (very high mean) with mean range of 4.20-5.00, Agree = 4 (high mean) with mean range of 3.40 - 4.19, Undecided = 3 (average mean) with mean range of 2.60 – 3.39, Disagree = 2 (low mean) with mean range of 1.80 – 2.59 and Strongly disagree = 1(very low mean) with mean range of 1.00 -1.79.

Gender Roles: In this study meant the social, economic, and cultural roles and relations between women and men; it takes into account the different responsibilities of women and men in given culture or location and different population groups at different times. Gender in this study meant the difference arising from the socially constructed

relationship between men and women. In this study gender roles of both men and women in accessing to and use of agricultural advisory services was measured by use of the five Likert mean range scale that was interpreted as strongly agree = 5 (very high mean) with mean range of 4.20-5.00, Agree = 4 (high mean) with mean range of 3.40-4.19, Undecided = 3 (average mean) with mean range of 2.60 – 3.39, Disagree = 2 (low mean) with mean range of 1.80 – 2.59 and Strongly disagree = 1 (very low mean) with mean range of 1.00-1.79.

Gender and Training: In this study meant the acquisition of knowledge, skills, and competencies as a result of the teaching of vocational or practical skills and knowledge that relate to specific useful competencies. Training has specific goals of improving one's capability, capacity, productivity and performance. Men traditionally are regarded as the head of the household and are often automatically the recipient of new information. It is assumed at trainings that any knowledge men acquire was passed on to those within the family who actually carry out the task. Unfortunately, the possibility that this information transfer may not necessarily happen, or that crucial information may be lost along the way, is rarely considered. Gender and access to training was measured by use of the five Likert mean range scale that was interpreted as strongly agree = 5 (very high mean) with mean range of 4.20-5.00, Agree = 4 (high mean) with mean range of 3.40-4.19, Undecided = 3 (average mean) with mean range of 2.60 – 3.39, Disagree = 2 (low mean) with mean range of 1.80 – 2.59 and Strongly disagree = 1 (very low mean) with mean range of 1.00-1.79.

Gender Equity: In this study meant men and women should receive equal treatment, and should not be discriminated against based on gender.

Improved Technology: In this study meant the use of modern agricultural production technologies and practices that promote greater use of production post-harvest technologies and commercial marketing of commodities. Access to improved technologies was measured by use of the five Likert mean range scale that was interpreted as strongly agree = 5 (very high mean) with mean range of 4.20-5.00, Agree = 4 (high mean) with mean range of 3.40-4.19, Undecided = 3 (average mean) with mean range of 2.60 – 3.39, Disagree = 2 (low mean) with mean range of 1.80 – 2.59 and Strongly disagree = 1(very low mean) with mean range of 1.00-1.79.

Social Beliefs: In this study meant norms around interaction between men and women. Social norms restrict the extension workers, who were predominantly men, from interacting with women farmers. Social beliefs restrictions in accessing and use of agricultural advisory services were measured by use of the five Likert mean range scale that was interpreted as strongly agree = 5 (very high mean) with mean range of 4.20-5.00, Agree = 4 (high mean)) with mean range of 3.40-4.19, Undecided = 3 (average mean) with mean range of 2.60 – 3.39, Disagree = 2(low mean) with mean range of 1.80 – 2.59 and Strongly disagree = 1(very low mean) with mean range of 1.00-1.79.

Production Support in this study meant capacity building activities, field visits and trainings and other opportunities offered to farmers to decrease production input costs, and manage their land more efficiently. Production support was measured by use of the five Likert mean range scale that was interpreted as strongly agree = 5 (very high mean) with mean range of 4.20-5.00, Agree = 4 (high mean) with mean range of 3.40-4.19, Undecided = 3 (average mean) with mean range of 2.60 – 3.39, Disagree = 2 (low mean) with mean range of 1.80 – 2.59 and Strongly disagree = 1 (very low mean) with mean range of 1.00-1.79.

Household Participation: in this study meant the access of advisory services, through training, use of improved technology, ways of supporting production and adoption of new crop and livestock enterprises. Household participation was measured by use of the five Likert mean range scale that was interpreted as strongly agree = 5 (very high mean) with mean range of 4.20-5.00, Agree = 4 (high mean) with mean range of 3.40-4.19, Undecided = 3 (average mean) with mean range of 2.60 – 3.39, Disagree = 2 (low mean) with mean range of 1.80 – 2.59 and Strongly disagree = 1 (very low mean) with mean range of 1.00-1.79.

CHAPTER TWO

LITERATURE REVIEW

This chapter looked at related literature and analysis of documents containing information related to gender equity and household participation in agricultural advisory services among farmers. The review of related literature revealed strategies, procedures and measuring instruments which were useful in investigating the problem.

Gender Roles

Gender is practically understood as a social relationship between men and women, both perceptual and material (FAO, 2013). It can also be defined as a social construction of the male and the female identities and relations in any given society (Eisechlas, 2013). The social characteristics include age, religion, nationality, ethnic and social origin and time among others. In general, gender describes the socially, psychologically, historically and culturally constructed roles, expectations, responsibilities (obligations), constraints, opportunities, privileges and activities of men and women in any context. Gender started from time immemorial and is still continuing, that is, it is dynamic (FAO, 2013).

Gender equity means that both women and men have fair and equal chances to be actors in, and benefit from any programme. Equity does not mean that people are treated equally, rather, it suggests that special location-specific mechanisms need to be devised to help overcome historic gender disadvantage (Rozel, 2010). Both men and women work to maintain households and the communities but their work loads differ in nature and value. However, it is not clear what influences household participation in agricultural

advisory services among farmers from a gender perspective which is the concern of this study.

Studies show that resources and incomes controlled by women are more likely to be used to improve family food consumption and welfare, reduce child malnutrition, and increase the overall well being of the family (Brown et al., 2008). However, the argument should be made that in some situations men need to be strengthened in their roles as providers of household food security and well-being in order to reduce the burden of responsibility upon women, and to strengthen overall household livelihood strategies. Although policy makers may by default consider men to be farmers, reality has sprung way ahead. In many countries, men are walking away from farming, particularly when it seems 'unprofitable'. The 'feminization of farming' is resulting in new opportunities as well as exploitative relations for women, such as low-waged work in horticultural supply chains (Barrientos, 2010). The review although related to the study does not show how such a scenario influences gender equity and household participation in agricultural advisory services among farmers from a gender perspective which is the concern of this study. Similarly, it did not deal with factors which the current study is investigating.

In a study entitled, "*Gender Aware Approaches in Agricultural Programmes-Sida-supported Agricultural Programmes*", Rozel (2010), found out that whilst all programmes initiated activities directed to involving women, in no programme was gender mainstreamed across all components. The study further found out that in no programme did gender equity form a leading goal, and no programme prepared a coherent gender mainstreaming strategy aimed at implementing gender equity as a means of achieving better agricultural outcomes. The study however does not show the factors

affecting access and utilization of agricultural advisory services which the current study is undertaking.

Position or Headship

Tackling gender discrimination in agricultural practice demands the creation and implementation of measures that tackle head on the situation-specific institutional arrangements that systemically discriminate against women (Lastarria-Cornhiel, 2008). Arrangements, such as unequal access to land, machinery and sources of information, act to weaken the performance of women farmers and demonstrably damage the national performance of those countries where female participation in agriculture is high (Rozel, 2010).

The concept of gender is vital because, it reveals how women's subordination (or men's domination) is socially constructed. As such, the subordination can be changed or ended. It is not biologically predetermined nor is it fixed forever (Manfre, 2013). Gender biases are deep rooted in our social values and so, adjustment needs courage to drop the habits that have been ingrained in men and women since childhood (Olumakaiye and Ajayi, 2006). Society has allocated different roles, that is, productive, reproductive and community roles, responsibilities and activities to men and women according to what is considered appropriate (Colveen et.al, 2010). The roles and responsibilities are not fixed but dynamic, always changing as a result of the social interaction of different cultures and development; they change and can be shared (Eisechlas, 2013). The scenario aforementioned is from a different setting as compared to the one in Komamboga. Thus, there is need to assess how applicable it is to the study area.

Gender of household heads, as revealed in a study conducted in Ethiopia (Umata et al, 2012) influenced participation in governmental extension programs,

with male-headed households taking dominance (75%). Factors such as age, farm size, religion, education level and income were reported to have a significant effect on accessibility to extension services by women (Okwu and Umoru, 2009). The sexual division of labour artificially separates men and women on the basis of the social notions about the natural capacities of the genders; but it also binds them together in certain ways on the basis of their different specialisations, thus creating a system of exchange and co-operation between genders, for example, men clear the fields while women plant and weed (Apata and Awe, 2013).

Extension and advisory service agents are failing to reach women. This happens for a number of reasons: women have limited time and ability to travel for meetings, they lack land tenure, they have limited or no access to credit and, of course, (in the Middle East in particular), cultural barriers loom large in accessing EAS. Additionally, since banks often require land as collateral for credit, and women's land ownership is restricted in many parts of the world. Their access to other agricultural inputs like fertilizer and pesticides is even more compromised. Without ownership of land, and access to these valuable inputs, women receive less EAS than male farmers, which further constrains their agricultural productivity and livelihoods (Manfre et al., 2012; Seebens, 2010). Gender bias also impacts women's access to EAS in that many institutions do not recognize women as farmers but instead view them as additional household labor or simply housewives. Similarly, some crops are seen as 'women's crops' or 'men's crops', the latter of which is considered to be commercial agriculture and higher priority. A persistent assumption that members of the household freely share information, thereby giving women access to EAS data, is false but it serves to justify women's exclusion from EAS trainings.

Although there is increasing recognition that farming is a family business, in many societies the head of household, whether a man or a woman, is still defined as the primary farmer and is perceived as the only appropriate recipient of agricultural extension information. Though this is slowly changing, according to a report by the World Bank (2010), many institutions continue to operate under the perception that “women are not farmers” (World Bank 2010). As a result, women are underserved as clients of extension services in their own right, often seen to be only helping. Alternatively, they are targeted for agricultural information related to home economics. The assumption that their role in agriculture is linked to their household responsibilities ignores substantial evidence of women’s contributions to the production and harvesting of cash crops. Some of these beliefs are reinforced by women as well. In Trinidad, women also characterized backyard gardens as supplemental activities (Payson Roopschand, 2006). Defining gender relations between men and women in the same farming household in this way also leads to “trickle across” assumptions that information flows freely between men and women, and, therefore, that targeting men is sufficient for relaying agricultural information, even when it concerns tasks for which women are responsible.

Responsibilities

Women spend more hours working; a phenomenon confirmed by the male habit of letting the women do the bulk of work at home and in the fields. Farm work may not necessarily last long but when reproductive work is considered the working day of the women becomes long. Labour constraints are more acute for female headed households than male-headed households (Dillon and Quinones, 2010). Despite the notable contribution of 70-80% agricultural labour force and provision of 60-80% agricultural production that women farmers provide, they neither receive social support they need to

perform these critical roles nor receive the due rewards from their contributions. They have been conveniently side-stepped by most capacity building programmes, including the agricultural advisory service delivery (FAO, 2010). However, this is not clear how applicable it is to the study area. Thus, the current study is concerned with the gender equity and household participation in agricultural advisory services among farmers in Komamboga parish.

The view that the man, as household head, is the primary farmer draws on an older unitary and Western model of the household that posits an “altruistic dictator” who makes decisions on behalf of other members, such that all members share a single preference. A different and more heterogeneous vision emerged from later theoretical and empirical studies that stressed the importance of bargaining and decision making within families. The family (or household unit) as a site of “cooperative conflict”. According to this approach, several factors are particularly important in influencing outcomes of bargaining within the family, including the perception of contributions by the person from her/his own view and from the viewpoints of others, as well as the source of income.

Both men and women provide labour to do productive, reproductive and community management roles in society. It is likely that since most farmers in the region depend on family labour (Cohen & Lemma, 2011) and the men control the households thus the labour force, they would definitely have more access than the women. In contrast to men, women must balance simultaneous competing claims on limited time for each of these roles. The women's time and flexibility are much more constrained than men's. The valuation of work is usually governed by the gender considerations which are very biased against the women since the force behind is the men (Cohen et al). Gender roles and

expectations are learned (Phillips, 2005). They can change over time and they vary within and between cultures. Systems of social differentiation such as political status, class, ethnicity, physical and mental disability, age and more, modify gender roles.

Kiguli (2004) asserts that roles and responsibilities are shared differently by both men and women in urban agriculture. She further states that one must note that different activities are done at different levels by different sexes. Ultimately, she argues that differences exist in division of tasks between sexes within the households practicing agriculture in the urban setting from those in the rural areas. While women constitute a large proportion of those in the home during office hours in the study area, jobless men seem to be away from home in search of petty trading and other informal sector work.

Kiguli (2004), in her paper, *Gender And Coping Strategies For Access To Land For Urban Agriculture In Kampala City, Uganda*, a paper presented at a workshop on gender and urban agriculture, emphasizes that women and children plant, weed and harvest while men market the produce, although not necessarily. For example, women sell the cocoyam (known as a cash crop) among urban farmers whereas men mostly do manual labour. In this case, urban farming (where Komamboga is situated) has many men as casual labourers to middle income households. Besides, most farms in Kampala are female headed. Still, some poor women work as casual labourers for wages because they do not own land and need money to meet basic needs. Men prefer to keep animals while women prefer to grow vegetables and other food crops on the farms. Any crops such as tomatoes in the city, which fetch high income, may be labeled as cash crops yet it differs in the rural areas. It is markedly important to keep in mind that such crops tend to be handled by men although women may play a significant role in their production.

Women have formed groups and own zero grazing cows or keep goats. The boys tend to look after the rabbits and provide feeds to poultry while girls assist their mothers.

However, in spite of the many farming activities they perform (EEA/EEPRI, 2006; Kassa, 2008), they are not perceived as farmers and agricultural decision makers. Traditionally, the farming systems research and extension approach has obscured the complexity of female's position in regard to household labour requirements. Furthermore, the community considers farming as an inappropriate activity and physically demanding for females.

When females do participate in extension activities they may not be provided equal recognition for their responsibilities and skills. This is because farmers and farming activities continue to be perceived as “male” by planners and agricultural service deliverers, thereby ignoring the important and increasing role females play in agriculture. Moreover, technology packages delivered by extension services sometimes reinforce stereotypic divisions of labour (Manfre et al., 2013). For instance Ethiopia's Women's Development and Change extension package provides advice related to horticultural production, raising of poultry and small ruminants on the basis of the assumption that female do not farm but garden (World Bank, 2010; Cohen & Lemma, 2011).

In contrast to the national policy and Ethiopian government advocacy that strongly promote gender equality in all aspects of life, the top-down approach, the perception that “females are not farmers” and the focus on getting model farmers to adopt fixed-technology packages (World Bank, 2010) and serious selection bias during placement of program participants (Elias et al., 2013), the agricultural extension program tends to neglect poor farmers in general and female farmers in particular (Ogato et al., 2009; Umeta, 2013). Although gender training and mainstreaming take place in some

areas, women focused extension approaches are limited, and gender considerations are missing at all levels. Furthermore, the development and dissemination of agricultural innovations rarely take gender-specific characteristics and requirements into account (Action Aid and CARE, 2012).

Social Beliefs

Social beliefs are behavioural rules supported by a combination of empirical and normative expectations by which groups in a community identify themselves (Phillips, 2005). They consist of fables, proverbs, myths, folklore, traditions, superstition and education that influence the ideas, values, emotions, perceptions and attitude of the members of the society. Beliefs are socially acceptable means to deliver the tradition and culture of certain groups as directed by the knowledge and ideas in their evolving understanding and exposure in the family, clan, friends and other members of the society (Phillips, 2005).

Many systems have put a greater emphasis on promoting various agricultural extension projects without understanding the practical and cultural obstacles that prevent women from accessing the most needed services (Manfre et al. 2013). This has largely resulted in women's unequal access to EAS in rural locations. In some cultural settings in developing countries, contacts between men and women are restricted (Vernooy, 2010). In such circumstances you find that majority of extension workers are male; hence, women farmers are likely to have less access to public extension services (Vernooy, 2010). Consequently, male extension agents carefully interact with male farmers' more than female farmers thus expecting the extension advice to eventually "trickle down" from the male household head to all other household members (Diao, 2007). This gender

gap hampers women's productivity and reduces their contributions to the agricultural sector and to the achievement of broader economic and social development goals.

Culture

Vernooy (2010) argues that women are considered as impure and unclean because of their childbearing role in some communities. These communities consider menstruating women 'impure' and do not allow them enter agricultural fields. Similarly, after giving birth a woman is considered 'impure' for at least seven days. Women's image is one with inferiority; this is reinforced by the socio-cultural taboos in some communities (Vernooy, 2006).

A 2010 review of selected regions of Ethiopia, India, and Ghana found that the levels of household participation to agricultural extension varied by region and by type of crop or livestock, but that women's access was regularly less than men's. Even though women contribute significantly to the socio-economic development of their countries through agriculture they continue to face major socio-cultural challenges, which differ from one community to another. Kabane (2010) asserts that tradition and cultural norms are the major challenges that limit the access of women to agricultural input, thereby leading to the invisibility of women in agricultural development. In short, there is agreement that gender inequalities and lack of attention to gender in agricultural development contribute to lower productivity, lost income, and higher levels of poverty as well as under nutrition. This recent and renewed interest in gender and agriculture has produced several new initiatives, calls for action, and commitments from the international development community since 2005 (World Bank, 2007)

Women face cultural restrictions in accessing land than men and the land they control is often of poorer quality and their tenure is insecure (FAO, 2010). Globally,

women hold title to approximately two per cent of land and are frequently denied the right to inherit property (Steinzor, 2003). In Ghana for example, Deere and Doss (2006) indicated that women held land in only 10% of Ghanaian households. This situation is crucial to the understanding of their subordinate position in society in order to explain gender inequality in Ghana. Women's lower access to land has affected their ability to practise sustainable environmental management, thus impacting negatively on agriculture and biodiversity on their farms (Ardayfio- Schandorf and Awumbila, 2000). This "gender gap" hinders women's productivity and reduces their contributions to the agricultural sector and to the achievement of broader economic and social development goals.

Many governments have failed in their obligations to ensure that services are delivered effectively to disadvantaged groups and particularly to women. One reason for this is the socio-cultural bias which has often hindered women's active participation in farmer training centres, extension meetings and most importantly, access to agricultural inputs (e.g. fertilizers), services and economic resources (UNIFEM, 2009). This has happened in ways that you find a widow is shunned by the community and this will scare her away from the attending extension meetings thereby failing to access to advisory services and incentives.

Decision Making

Further more, in male-headed households, men determine which size of land to access for farming and type of crops to be grown (Kiguli, 2004). Women generally do not hold titles to land. They are prevented from having a voice in stating their needs due to ethnic background and tradition. For example, some cultural practices state that women do not speak in public (e.g., among the Baganda). Women are perceived as mothers of the nation and are largely expected to perform in the domestic sphere while men serve in

the public sphere. Similarly, other ethnic groups in the Uganda share common cultural strands with the Baganda. For among the Banyankole and Iteso, livestock is significant as land and men inherit or have a say in disposing of it. It is the men who control the major source of household income and determine how to use it. The men purchase the farm inputs and equipment like hoes and pangas. It is they who have a strong hold on the household budget and allocate a certain amount of money to women, who in turn decide on household expenditure priorities.

While women provide from 70-80 percent of agricultural labour, few have rights to own (7%) or control use of land. Only 30% have access to and control proceeds from land. Both men and women have access to land, but ownership and control over land is ultimately with men (Ovonji-Odida et al, 2000). Uganda Participatory Poverty Assessment Process (PPA2, 2002) indicated that men virtually own and control all household resources including land. Very few women were reported to own or control land, though they access it for use. Women in general access land through marriage. Only in urban areas, where there are a number of wealthy working women able to purchase land and where poor women have taken on the role of family breadwinner such as when widowed, can women be said to have full control of land. Men generally decide how to use land and whether to sell it. In a few instances, they consult their wives about the sale of land. Since men own the land, they also generally own and control the agricultural production process including the produce obtained and the income from their sale. Therefore, the lack of tenure security, lack of input into decisions and lack of control over income constrains women's incentives.

Decision-making in this study refers to the authority women have to decide on the type of enterprise, service provided, market, farm operations and the use of resources.

Participation in decision making as a major goal in community development strategy has proved to be the most difficult goal to attain. Participation by women has rarely been accomplished in the implementation of community project. It is important to note that decision making also affect the benefit and participation in agricultural advisory services. The main issue here will be to investigate whether women farmers' make decisions on land use and the enterprises they want to engage in.

Women often operate within a cultural context that under values women's opinions and contributions to public discussions. Participation in bureaucratic structures by women unless it addresses these, rather than intractable and often unrecognized assumptions can do little to alter the gendered context in which participation occurs (Mayoux, 1995). Poor people are left out of discussions and women with their lack of skills are left outside the loop. Therefore, there is need to investigate whether women actually participate in decision-making and whether their decisions are considered in the planning process of NAADS. The challenge is to think in new ways about participation for women and use theoretical tools to help design new methods and techniques that will enhance both women's ability to fully participate in development and their capacity to transform cultural and material practices that contribute to gender inequalities (Parpat, 1990).

Unequal property rights are a particularly significant priority for gender analysis because they present men and women with different incentives to invest in inputs and to sustainably manage the natural resources on which agricultural production relies. They also entail different exposure to risk. Property rights and tenure security carry great practical significance for people's expectations of which investments and activities are likely to generate returns. For women, the question is often compounded by the very real

possibility that an activity that becomes commercially profitable will, as a result, be expropriated by male members of her household. Which investments and activities are likely to generate returns, and which returns are women confident will not be expropriated from them? Weak property rights lead to sub-optimal decisions and missed opportunities to increase productivity. They also represent serious, even prohibitive constraints on women's capacity to participate in collective action. Membership in water user associations, producer credit organizations, and community-based natural resource management groups often requires secure land rights, effectively excluding women. Land titling which is often a component of irrigation and natural resource management programs, must be sensitive to the practical constraints women have in exercising their rights. In Bolivia and Nicaragua for instance, providing land titles to household heads rather than to both spouses, effectively deprived women of their customary access to land.

Household Participation in Agricultural Advisory Services

Training

Okunade (2007) mentions that extension is an ongoing process, where useful information is got to people which therefore assists farmers to be able to acquire skills, knowledge and attitude to make use of the knowledge or technology effectively. To achieve the broad aim, extension uses various teaching methods to train people, with the belief that the more the various ways of presenting and practising the topic the faster, people tend to understand the subject matter.

As cited by Okunade 2007, Gaforth classified teaching methods of extension, into three namely; individual method, group method, mass method. Individual method

involved face to face interaction between the teacher and learner. For example, farm and home visits, whereas group method is meant to transfer specific information in regard to practises. For example, Small Plot Adoption Techniques (SPAT), group discussions and excursions, mass media method involves bulletin, circulars, bulletins, leaflets, radio, television and cinema. The methods' effectiveness can be measured in terms of their ability to change a situation that is static into a dynamic one. Much as the methods can be measured through the change created, considering suitability of teaching methods in relation to prevailing farmer needs is vital, because not all tools of teaching may be applicable to particular needs of farmers.

Improved Technology

A farmer's capacity to employ improved technology and investment depends on their access to productive resources (FAO, 2010). Both men and women contribute significantly to agricultural production yet, their access to these agricultural resources differ (Deere and Doss 2006). In spite of the contribution of women to agriculture, it is evident that they do not have as much access to and control over agricultural resources as men. ICT-based solutions are increasingly being advocated by extension practitioners for use in agricultural production and marketing systems but they are not as effective. Women still have limited access to these mobile phones because in most instances the mobile phone is for the husband and this limits women's access to improved technologies.

Extension Agricultural Services (EAS) are embodied in various ICT-enabled services. These range from traditional radio programs using add-on features, to television shows using short message services to request information on agricultural varieties or farming practices, to the emerging mobile technology services and internet (Jain et al,

2012). Despite the above, the fact remains that in most developing countries, women's access to ICTs and their usage is observed to be less than men's. This is due to a range of barriers faced by women (e.g. low literacy levels, lower technological skills, time-consuming domestic tasks, control of the mobile phones etc.) that contribute to persistent gender imbalances (Mbo'o-Tchouawou and Colverson, 2014).

The use of mass media (radio, television) in dissemination of agricultural information therefore, may not be effective in increasing the general awareness and intervention in new ideas about agricultural technology. According to Oryokot, (2003), although well designed advisory service messages on radio can be transmitted at low cost, the effectiveness of radio programmes may be limited due to low coverage in many third world countries.

A recent study by Manfre & Nordehn (2013) revealed the increasing women's ownership of and control over mobile phones is an important contribution to increasing access to agricultural information services delivered by mobile technologies. All these success factors indicate the increased role of ICT-enabled solutions in promoting women's empowerment through their participation in information sharing and decision-making processes. It also enhances the interactive functionality provided by traditional and modern ICT services.

In their study, Benin and colleagues (2011) found no clear-cut impact of participation in NAADS on the adoption of improved agricultural technologies. Reasons for the meagre impact of the NAADS program on participants' adoption of improved inputs especially purchased inputs, such as certified seed and fertilizer may be due to the cost of these inputs. In a recent study, Okoboi & Barungi (2012) found that high prices were the reason most frequently cited by farmers for not using improved inputs. Even

with training and advice on the benefits of using improved technologies, most farm households still were not using these inputs due to high prices, let alone the distance to farm-input shops to which the farmers had to trek to buy the inputs.

In Bangladesh, non-governmental organizations, such as the World Vegetable Center and the World Fish Center, had for a long time disseminated vegetable and polyculture fish production technologies, as well as provided extension services to farmers to enable them to optimally use their limited land. Using the methodology known as the average treatment effect on the treated, Kumar & Quisumbing (2010) examined the impact of the adoption of these technologies on household welfare. The researchers found a positive and significant increase in consumption expenditures and asset accumulation by farmers who adopted polyculture fish production technologies, but no significant change in consumption expenditures and asset accumulation was registered by farmers who adopted improved vegetables. The results for the nutritional status of vegetable and fish technologies adopters were mixed. For example, the authors found an increase in vitamin A consumption by adopters of improved vegetables but a worsening long-term nutritional status of fish technology adopters.

Production Support

Women in Africa generally play an important role in small-scale traditional agricultural production. They make up to 60-80 per cent of the labour force. Therefore, the significant role they play in meeting the challenges of agricultural production and development are quite dominant and prominent. The importance and relevance of women in agricultural development can therefore not be over emphasized. This is because they are known to be more involved in agricultural activities than men in Sub-Saharan African (SSA) countries including Nigeria (Afolabi, 2008).

Studies show that extension is generally cost effective, and has a significant and positive impact on farmers' knowledge and adoption of new technologies and hence on farm productivity (Saito et al, 1994). The extension services in economically advanced countries are aimed at rural societies as opposed to developing countries where over 80% of households depend on agricultural employment and the majority are poor and illiterate (Adams, 2001).

In Uganda, the NAADS program was evaluated twice; in 2007 (Benin et al. 2007) and in 2011 (Benin et al. 2011). In the first round of evaluation, Benin and colleagues (2007) used simple difference in means analysis on cross-sectional data to compare the adoption of technology and new agricultural enterprises, productivity, commercialization, income, food security and nutrition across NAADS and non-NAADS households. Benin et al. (2011) further observed that NAADS appeared to have had a substantial positive impact on the availability and quality of advisory services provided to farmers; promoted the adoption of new crop and livestock enterprises, including modern agricultural production technologies and practices; and led to a greater use of post-harvest technologies and commercial marketing of commodities.

Benin et al. (2011) found no significant changes in yield between NAADS and non-NAADS households for most crops. In the second round of the NAADS evaluation, Benin and colleagues (2011) used the propensity score matching (PSM) and average treatment effect on the treated methods on data collected in 2007 and 2005. Their findings revealed that NAADS had a great impact on access to advisory services but weak or no impact on the adoption of improved agricultural technologies, practices, and new crops and livestock enterprises. Furthermore, Benin et al. (2011) found mixed results regarding change in agricultural revenue, food security and nutrition of participants in

NAADS program. For example, NAADS impact on income was found to be positive and significant for adopters of livestock enterprises and insignificant for adopters of crops technologies.

Extension services can increase agricultural productivity by collaborating farmers with researchers in the development of new technologies (such as cultural practices, varieties, chemicals, and tools) in response to today's rapidly changing circumstances. These services help to providing technologies and information to as many farmers as possible in a timely and accurate manner, using a variety of communication and training methods. Similarly, through these services, farmers are encouraged to informally test, adapt, and adopt the technologies thus improving productivity.

Agricultural Advisory Services

Agricultural extension can be defined as advice and assistance given to farmers to help them improve their methods of production and marketing. Agricultural extension traces its origins to the 19th century (Worth, 2006). Traditionally, extension is anticipated to play an intermediary role between technology development by researchers and farming communities. This typically involved communicating technical messages and educating farmers about how to apply technical knowledge and skills geared towards increasing agricultural production. Conventionally, extension efforts have been directed at farmers as the primary target group through non-formal training activity.

In a recent review Swanson (2008) identified four major objectives of extension systems which include technology transfer, especially for staple food crops; human capital development, especially regarding the technical and management skills and knowledge that poorly educated farm-households need to increase farm income; building

social capital, or getting farmers organised into groups or other types of farm organisations to carry out specific activities; and educating farmers to manage natural resources sustainably. Agricultural extension services play the role of middlemen operating between agricultural research institutions and farm families.

When extension services work with the whole household, rather than with individuals in that household, the whole farm is strengthened as a productive enterprise (Rozel, 2010). This is because the systemic interdependence of women and men's work is explicitly recognized and strengthened. Given that many community-level dialogue processes are male dominated, women often request women-only spaces to strengthen their voice and learn effectively. Well-managed groups help women build supportive information exchange networks and to become locally recognized as 'people of knowledge'.

Even though it was observed that extension services favoured men more than women in many countries (FAO, 2011), Doss & Morris (2001) observed that in Ghana, female farmers in male-headed households have equal contact with extension agents but female farmers in female headed households have much less contact. However, FAO (2011) observed that service providers tend to approach male farmers more often than female farmers because of the general misperception that women do not farm and that there would be a "trickle down" effect from male household heads. Lack of land ownership increases women's mobility as they search for empty open spaces to farm. Women have to take their children along to the far away farms or arrange with a kind neighbour to watch over the very young ones.

Access to inputs especially fertilizers, agrochemicals (herbicides, insecticides etc.) and machineries is a major limitation to the growth and development of Africa

agriculture (Morris et al, 2007). Advanced agricultural systems in the other parts of the world have thrived on adequate supply of inputs, with concomitant increase in productivity of the farming business leading to increased competitiveness of the commodities produced (Adams 2001). The situation is the direct opposite in most Africa countries where the use of inputs is far less than 10% of what is used in the West and Asia (Morris et al, 2007). Adequate supply to ensure availability as at when needed and the affordability of this farm inputs has been a major constraint. The price regimes of most inputs are much higher in Africa than in several other parts of the world thereby constituting a major factor limiting their use.

Access to output market constitutes a major limitation to production at the farmer's level (Morris et al, 2007), it also limits socio-economic benefits from best technologies that are effectively transferred and used. Farmers are not able to access market due to a number of institutional non-competitiveness of commodity produced locally in terms of price and quality compared to the same (Morris et al, 2007).

There is the recognition that the research institutions have generated a lot of knowledge, technologies and inventions that have largely suffered low adoption (Morris et al 2007). This has to do with socioeconomic and cultural circumstances of the farmers; for instance, a high yielding, hardy and dwarf variety of sorghum will not be suitable for a farming community where sorghum stalk is required for fencing and for feeding livestock.

Technologies also suffer lack of adoption when it demands much external input from the farming communities or demands extra management services (Adekunle, and Fatunbi, 2014). The drudgery in small holder agriculture is sufficiently high to discourage extra activities like multiple spraying to apply agrochemicals and or some

labour intensive cultural practices. Often, technologies that are embedded in the seeds are more acceptable at the smallholders' level. In some other instances, there is zero awareness of some technologies by farmers due to the failure of the extension system, howbeit, the extension system is public sector driven and in countries where the public sector lacks the required incentives for performance, the extension system is largely inefficient.

Summary of Identified Gaps

According to the review of World Bank (2007), FAO (2010), Phillips (2005), Elias et al. (2013) and Dillon and Quinones (2010) show contradictions, arguments and disagreements in regard to gender equity and household participation in agricultural advisory services. Therefore, there was need to carry out this study in order to ascertain how gender equity affects household participation in accessing agricultural advisory services among farmers in Komamboga parish.

Similarly, the literature surveyed was from different parts of the world and the country at large with differences from Komamboga parish. Therefore, the study used the findings from the different scholars to ascertain how applicable it was to farmers in Komamboga parish. For instance, UN Africa Renewal (2014) argue that gender roles and their socio-economic situation often limit women's ability to implement innovative practices to the same extent as men. However, those studies have not shown how gender roles have influenced the access and utilization of agricultural advisory services in farming, which the current study is investigating.

Most of the studies reviewed such as Apata and Awe (2013) and Jain et al. (2012) found that the environment in which farmers operate in must be considered and addressed

in all initiatives. The participation of men and women farmers in the identification of their needs and barriers should be addressed. However, most of those studies have not addressed gender factors that affect access and use of agricultural advisory services.

CHAPTER THREE

METHODOLOGY

This chapter addressed the methodological aspects of the study, which include the research design, locale of the study, the population, sampling procedures, procedures of data collection, description of research instruments that were used in collecting data, and the measurement of variables and techniques that were used in analysing the data.

Research Design

This study was based on a descriptive-correlational research designs with both qualitative and quantitative methods of data analysis. Descriptive design helped in a careful and in-depth investigation of a particular unit or event under study for purposes of generalization. This design was chosen in order to provide information on this particular study and also have in-depth study in the area under investigation (Komamboga parish). The design was appropriate for quantitative and qualitative studies of this nature which seeks to investigate deeply into the phenomenon under study. This design was used to establish the gender equity and household participation in agricultural advisory services. Quantitative approach was used because numerical calculations were applied from which numerical data was obtained on respondents' preferences, interpretation, attitudes, and opinions on all aspects of agricultural advisory services for deductions and interpretation to be made. This further helped the researcher to ascertain the deeper meaning of the responses from the respondents through inferential statistics such as Pearson Coefficient Correlation Moment to describe the degree to which household participation influences agricultural advisory services. Correlation method was used to ascertain the relationships

that existed between gender equity and household participation in agricultural advisory services among farmers in Komamboga Parish, Kampala District, Uganda.

Qualitative approach explored traits of individuals and settings that could be easily described numerically.

Locale of the Study

The study was carried out in Komamboga parish Kawempe Division, Kampala District, 10 km north of the Capital City. The choice of Komamboga was based on the fact that the Kampala Capital City Authority model farm is situated in this parish and therefore this was a reference point as well as a base to access farmers easily.

Population of the Study

Komamboga parish has a population of 31,872 of which 14, 934 are males and 16,938 are females (UBOS Census Report 2014). In overall Komamboga parish has eighty (80) farmers who accessed agricultural advisory services between 2010 and 2014.

Sample Size

According to Bailey (1992) when studying small populations, the researcher may use the entire population as the research sample. Bailey (1992) maintains that such a sample is representative enough to be used to generalize the findings for the study as it can give a clear picture than when all the population is studied. The sample of this study was therefore 80 farmers who were respondents drawn from the farmers of Komamboga parish. The study interviewed 4 NAADS co-coordinators as key informants.

Sampling Techniques

The researcher used purposive sampling methods in selecting the respondents for the study. Purposive sampling procedures were employed to reach out to those farmers who had received agricultural advisory services since 2010. The researcher obtained a list of farmers from KCCA model farm which was used as a sample frame. With the help of the NAADS officials, farmers were visited and questionnaires distributed.

Research Instruments

In order to ensure reliability of the study findings, the researcher used questionnaires for the surveys, interview guide for the interviews and observations lists for observations as well as review of archival records as instruments and methods of data collection.

Questionnaire

The questionnaire was constructed and administered as a self-administered questionnaire. It had both closed and open ended questions covering the study variables. Section (A) included socio-demographic information and section (B) examined access to agricultural advisory services; and section (C) addressed level of use of advisory services farmers get from NAADS. Questionnaires were hand-delivered and collected at a later date. For respondents who were not able to read and write; assistance was provided by the researcher through direct discussion to answer the questionnaire.

Interview Guide

The researcher administered an interview guide to the respondents who were not able to read and write, and other respondents who were comfortable to be interviewed. Specifically, the NAADS coordinators were interviewed to provide important technical

information concerning the advisory services offered the NAADS program. Here the researcher designed an interview guide to help her gather the required data.

Document Analysis

The study used documentary analysis to assess information related to the NAADS advisory services in order to ascertain what had been done so far. The documents included: magazines, textbooks newspapers, reports obtained from library, archives and internet. This information obtained from these sources was very vital to the researcher when analyzing the data from the field.

Validity and Reliability of the Instrument

Validity: The content validity was established by the supervisor who checked the items of the questionnaires by examining them several times, to check their reliability, relevance, clarity and ambiguity in connection with the objectives and variables of the study. Content validity was then established by the formula:

Content Validity Index =

$$\frac{\text{total number of valid items}}{\text{Total number of items in the questionnaire}}$$

Whose result was 0.74 which was considered valid since it attained a value that was 0.7 and above.

Reliability: The questionnaire was pre-tested in Kyanja parish. The pre-test was done on 20% of the study population and this was on 20 respondents. The goal of administering the pre-test was to establish the validity and reliability of the instrument. The pre-test ascertained if the research instrument was interpreted correctly and whether the respondents supplied the required data. Results from the pre-test exercise helped to

make suggestions/adjustments, which were incorporated in the final copy of the research instruments to improve their validity. In the study, a minimum reliability analysis of 0.7 and above was taken as a reasonable measure of internal reliability through the use of Cronbach's alpha coefficient. The result was

Table 1: Reliability Statistics	
Cronbach's Alpha	N of Items
.799	23

Data Collection Procedure

An introductory letter from the Dean of Graduate School was requested, which was taken to the local council offices of Kawempe Division and the parish council of Komamboga Parish, where the study was conducted, for clarity of the study and permission to work in the area. The researcher visited Komamboga Parish and met with NAADs coordinators to observe any gender related aspects on the observation check list. The researcher administered the questionnaires, collected the data and processed it. Interviews were carried among the key informants and observed the subjects too, collected the qualitative data using interview guide and observation checklist. After processing the data from the questionnaires, identified the salient issues that could explain the important findings.

Data Processing

Editing

After collecting the data, it was edited to check completeness, consistency and its relevancy. For the respondents who answered the questionnaires and those who were

interviewed, editing was done before leaving the respondents. This was done to ensure that all questions which were relevant to each respondent were asked, answered and responses got were clearly documented.

Coding

Data was edited further and coded so as to derive statistical meaning of the collected data and also to bring identical responses together. Responses were tallied to enable the computation of cumulative frequencies and percentages so as to facilitate easy presentation.

Data Analysis

After collecting data, the data was fed into SPSS where analysis of objectives of the study was done. The analysis of the data corresponded to the research objectives. The following statistical analysis was used: Descriptive statistics; which included the mean, frequency and percent distribution were used to describe demographic information of the sample population.

Pearson correlation moment was carried out to test the hypothesis of the study and to determine the relationship between the independent variable and dependent variables.

Objective 1, and 2, were analyzed using descriptive statistics such as frequency, percentages and mean to determine gender equity and household participation in agricultural advisory services among farmers in Komamboga Parish, Kampala District; Whereas for objective 3 Pearson correlation moment was used to get the relationship between gender equity and household participation in agricultural advisory services among farmers in Komamboga Parish, Kampala District. Pearson correlation product

moment was used in order to show the relationship among the variables, which can further show the strength of the relationship between the two variables under study.

In relation to qualitative data, it involved editing, coding, descriptions and narration of experiences recorded verbatim while the rest of the information was reduced, clustered and defined according to words using themes (thematically) from which conclusions was drawn. This technique allowed the researcher to categorize data according to the study objectives and research questions.

CHAPTER FOUR

RESULTS AND DISCUSSION

The chapter presents the analysis, interpretation and discussion ‘gender equity and household participation in agricultural advisory services among farmers in Komamboga parish, Kampala district, Uganda’. The study specific objectives were; to determine the level of gender equity influence in agricultural advisory services in Komamboga Parish, examine the level of household participation in agricultural advisory services in Komamboga and to establish the relationship between gender equity and household participation in agricultural advisory services in Komamboga Parish. The objectives are presented in their order, although the chapter begins with the respondents’ profile.

Respondents Profile

The study looked at the respondents’ profile in terms of gender, age bracket, educational attainment, size of land under farming, implements used in field preparation and source of farm capital. This was necessary in order to determine whether gender equity and household participation influenced access of agricultural advisory services from NAADS. Descriptive statistics, mainly frequency and percentages, were used to analyze data on the demographic profile of the respondents. The frequencies and percentages were meant to establish the most frequently occurring responses and the least frequently occurring responses. Table 2 below presents the findings relating to respondents’ profile.

Table 2: Respondents' profile

Gender	Frequency	Percent
Male	21	26.3
Female	59	73.8
Age bracket		
20-30 years	26	32.5
31-40 years	36	45.0
41 and above years	18	22.5
Educational attainment		
Primary school	17	21.3
Secondary	33	41.3
Tertiary	30	37.5
Size of land under farming		
Less than one acre	20	25.0
One and half acre	43	53.8
two-three acres	12	15.0
More than three acres	5	6.3
Implements used in field preparations		
Hand hoe	68	85.0
Ox-Plough	10	12.5
Tractor	2	2.5
Source of farm capital		
Own savings	39	48.8
Credit from friends	18	22.5
Credit from Bank /MFI	23	28.8

N = 80

The study looked at the sex of the respondents, in which 59 (73.8%) of the respondents were females and 21 (26.3%) were males. The findings imply that majority 73.8% of the respondents were females. This means that more females responded as compared to males. The more female respondents provide a better picture of how gender in Komamboga may affect access to productive resources and decision-making power within the households, cultural norms and participation in community decision-making bodies. Therefore, there was need to have more women in the study to underscore the facts.

In relation to the age bracket, 36 (45%) of the respondents were aged between 31-40 years, followed by 26 (32.5%) who were aged 20-30 years and lastly, 18 (22.5%) were

aged 41 and above years. Findings show that 54 (47.5%) of the respondents were mature, being 31 years of age and above. These are more active and productive and can share their lived examples regarding access to advisory services.

As pertains to the education attainment, it was found out that 33 (41.3%) of the respondents had attained secondary education, followed by 30 (37.5%) who had attained tertiary education and 17 (21.3%) had attained primary education. This means that the respondents had basic education since they had primary and educational attainment.

Concerning the size of land under farming, it was noted that 43 (53.8%) had one and half acres of land in farming, followed by 20 (25%) who had less than one acre of land under farming, then 12 (15%) had between two to three acres of land under farming and 5 (6.3%) had more than three acres of land under farming. The size of land is an essential part of whether gender equity plays a role in access and use of advisory services.

In relation to the type of implements used in field preparation, the study found out that 68 (85%) of the respondents used hand hoes to prepare the field, whereas 10 (12.5%) used ox-plough and 2 (2.5%) tractor. This means that the major tool used for preparing the land for planting or weeding was hand hoes. Few individuals on ground who used tractors since the size of land being used is also small. Therefore, the common implement used is the hand hoe.

In reference to the source of farm capital used, findings indicate that 39 (48.8%) of the respondents used their own savings, 23 (28.8%) used credit from Bank/MFI, and 18 (22.5%) used credit from friends. This means that approximately half of (48.8%) the respondents used own savings to begin their farming projects, extremely few used credit from friends or bank.

Gender Equity in Agricultural Advisory Services

The first objective of the study was to determine gender equity in agricultural advisory services. In order to address the objective and answer the research question, the study assessed two major issues that is gender roles and social beliefs. Respondents were given statements to rate as well as key interview guide was done to supplement the questionnaire. Therefore, Table 3 below presents findings pertaining to gender equity in agricultural advisory services.

Table 3: Gender Equity in Agricultural Advisory Services

Gender Roles	$\bar{x}$	S. D	Interpretation
There is gender discrimination in agricultural practices	3.39	1.268	Average
There is unequal access to land, machinery & sources of information that weakens the performance of women farmers.	3.76	1.275	High
In households where the men are heads, they hinder women from participating in governmental extension programs.	3.28	1.312	Average
Farm size contributes towards women seeking agricultural advisory services	3.15	1.223	Average
Women farmers rarely receive social support such as agricultural advisory services.	2.98	1.253	Average
The valuation of work is usually governed by gender considerations	2.72	1.161	Average
There are different roles for males and females which hinders women access use of agricultural advisory services.	3.11	1.273	Average
Households work to maintain households' needs	3.60	1.327	High
Gender roles averages	3.25	1.262	Average
Social beliefs			
Male extension agents carefully interact with male farmers' more than female farmers which hinders women access.	2.65	1.313	Average
Women face cultural restrictions in accessing land than men & the land they control is often of poorer quality	3.59	1.155	High
Traditional & cultural norms limit access of women to agricultural advisory extension services.	3.58	1.261	High
The cultural beliefs that women are impure and unclean hinder the agricultural extension officers from attending to them.	2.40	1.327	Low
NAADS provides modern agricultural production technologies & practices to farmers regardless of gender	3.63	1.372	High
Average Social beliefs	3.17	1.286	Average
Grand mean and SD	3.21	1.274	Average

N=80

Legend: 1.00-1.79 Very low, 1.80 – 2.59 Low, 2.60 – 3.39 Average, 3.40-4.19 High, 4.20-5.00very high

Findings from Table 3 show that respondents agreed that gender equity influence use of agricultural advisory services moderately. The respondents agreed moderately that gender equity factors such as gender roles and social beliefs ($\bar{x} = 3.21$; $SD = 1.274$) influence household participation in agricultural advisory services. This is an average mean with fair distribution of the standard deviation from the mean in either side, which implied that the responses cut across a normal distribution curve. It was therefore, clear that gender equity averagely affects the opportunity or ability to obtain and use available services which are within the vicinity of a potential user. This may probably show and affirm why there is unbalanced access to these services and the persistent inequality in income generation which leaves the women very dependent on their husbands. Researchers and practitioners (Farnworth *et al.* 2013) working on gender contend that empowering women and men through agricultural extension and advisory services are better and more successful because farmers are able to make the most of the opportunities around them.

The findings show average rating, which is in line with Quisumbing *et al.*, (2014) who argues that the situation seems to be that women farmers neither receive agricultural extension and advisory services they need to perform these critical roles nor receive due rewards from their contributions. At best they have been conveniently side-stepped by most capacity building programmes, including the agricultural advisory service delivery, as well as lack of equal access to the resources and opportunities like their male counterparts. Consequently, by default, men dominate both provision and usage of extension services.

Gender Roles

This means that the social, economic, and cultural roles and relations between women and men influences or affect use of agricultural services. Therefore, the different responsibilities of women and men in different culture among different population groups influence access and use agricultural advisory services differently based on their gender roles. There is unequal access to land, machinery and sources of information which weakens the performance of women farmers, men and women work to maintain households' needs, there is gender discrimination in agricultural practices. The concept of gender is vital because, it reveals how women's subordination (or men's domination) is socially constructed. As such, the subordination can be changed or ended. It is not biologically predetermined nor is it fixed forever (Phillips, 2005). Gender biases are deep rooted in our social values and so, adjustment needs courage to drop the habits that have been ingrained in men and women since childhood (Olumakaiye and Ajayi, 2006). Society has allocated different roles, that is, productive, reproductive and community roles, responsibilities and activities to men and women according to what is considered appropriate (Colveen et.al, 2010).

Through the interview it was found that extension and advisory service agents never reach individual people. NAADS officials noted that they opt to train groups rather than individuals due to cost effectiveness. Therefore, those who are not in groups find it difficult to access the services. They further noted that women lack land tenure, they have limited access to credit and, cultural barriers which hinder them from getting much benefits from the MFIs. For instance, lack of collateral for credit such as land limits them from engaging in bigger farming activities. For instance, one of the official said "... *mmm there is still gender bias which hinders us from providing agricultural advisory services,*

since there is more concern of the households where the household head (husband) is given the right to access". This was further supported by the documentary review in which it was found out that NAADS guidelines prefer training groups than individuals which contribute towards gender roles affecting access to and use of agricultural advisory services (MAAIF, 2010).

Social Beliefs

As pertains to the social beliefs, the findings from Table 3 revealed an average agreement among the respondents. The findings indicated ($\bar{x} = 3.17$; $SD = 1.286$) a moderate agreement that social beliefs moderately influence household Participation in agricultural advisory services. The standard deviation shows that the responses were fairly distributed across the normal distribution curve from the mean rating. It is therefore clear that norms around interaction between men and women have some effects on their access to and use of agricultural advisory services. In this case, social norms may be restricting the extension workers, who are predominantly men, from interacting with women farmers, which affects the access to and use of agricultural advisory services. Many systems have put a greater emphasis on promoting various agricultural extension projects without understanding the practical and cultural obstacles that may be preventing women from accessing the most needed services (Manfre et al., 2013). This may largely have contributed to the moderate access of women to access land and also provides room for women's unequal access to EAS in rural locations. In some cultural settings in developing countries, contacts between men and women are restricted (Vernooy, 2010). In such circumstances you find that majority of extension workers are male; hence,

women farmers are likely to have less access to public extension services (Vernooy, 2010).

Through the interviews it was revealed that women face cultural restrictions in accessing land which hinder them from receiving agricultural advisory services. Since the culture is biased, there are always challenges in understanding how society looks at their roles. Some of the NAADS officials interviewed noted that *although NAADS trains and carries out seminars, the socio-cultural bias hinders women from being active in farmer training centres, extension meetings and most importantly, access to agricultural inputs services and economic resources*. Furthermore, they noted that lack of authority to decide on the type of enterprise they can engage in, type of market, farm operations and the use of resources. It is important to note that decision making also affects the benefit and participation in agricultural advisory services.

Through the documentary review it was found that NAADS was meant to provide a gender strategy to bridge the gap between men and women. The gender approach means that NAADS is meant to create an impact directly on the well-being of the poor, especially the women. The outcomes expected are; that conditions created should be favourable especially to the poor women and youth to engage in commercial farming. The rural poor especially the women with no direct access to agricultural resources also benefit from the improved agricultural production and productivity resulting from the NAADS activities. Findings revealed that both men and women have access to the trainings, however the level to which information was provided to both the genders was not defined though the women had a challenge of putting the knowledge in to use due to the limited resources such as land.

Level of Household Participation in Agricultural Advisory Services

The second objective of the study was to examine the level of household participation in agricultural advisory services in Komamboga. To achieve this, the study assessed the level of participation in using agricultural advisory services among the respondents.

Use of Advisory Services

The study first assessed the level of usage of advisory services among farmers in Komamboga. Table 4 below presents the findings on usage of advisory services.

Table 4: Level of usage of agricultural advisory services

Use of advisory services	Mean	S.D	Interpretation
Through NAADS program, I have adopted new crop and livestock practices which have increased my farming enterprises	3.61	1.307	High
Through NAADS, I have received help in terms of technical support which has enabled me to manage natural resources sustainably	3.49	1.201	High
I have failed to integrate new technologies because it demands much external input from the technocrats and demands extra management services	2.95	1.340	Average
I can get more yields from my farm land now as compared to when I had no access to services of NAADS.	3.39	1.345	Average
The use of agricultural production technologies and	3.46	1.272	High
Grand mean & SD	3.38	1.293	Average

N=80

Legend: 1.00-1.79 Very low, 1.80 – 2.59 Low, 2.60 – 3.39 Average, 3.40-4.19 High, 4.20-5.00very high

It is clear that usage of advisory services among the farmers in Komamboga was moderate, which imply that some of the famers were using it, whereas others were not utilizing the services. This is in line with the argument in the statement of the problem where it was noted that women in Komamboga often experience weaker access to productive resources and decision-making power within the household, cultural norms affected their participation as well lower and less effective participation in community level decision-making bodies, in value chain networks, and in innovation platforms. They are less often reached by extension and advisory services and this makes it difficult for women to implement their ideas and to act on recommendations offered by agricultural and extension workers. In this case, the five items that were rated, three showed that farmers were utilizing the services since they adopted new crop and livestock practices which had increased their farming enterprises with ($\bar{x}=3.61$; $SD=1.307$). The second one was that respondents had received help in terms of technical support which had enabled them to manage natural resources sustainably ($\bar{x} = 3.49$; $SD = 1.201$). And the third item was the use of agricultural production technologies and practices which generated a ($\bar{x} = 3.46$; $SD = 1.272$). In this case, it is clear that the level of usage of agricultural advisory services in terms of adoption of new crops, receiving of help technically and use of agricultural technologies was high among the respondents. However, a number of the respondents had failed to integrate new technologies due to its demands such as external input from the technocrats and demands extra management services as reflected with ($\bar{x} = 2.95$; $SD = 1.340$). Furthermore, respondents moderately get more yields from their farm

land as compared when they had no access to services of NAADS ($\bar{x} = 3.39$; $SD = 1.345$).

In summary, the level of usage of agricultural advisory services among respondents in Komamboga was average.

Table 5 below presents the findings on the level of households' participation in agriculture advisory services in Komamboga.

Table 5: Level of Household Participation in Agricultural Advisory Services

Participation in advisory services	Mean	SD	Interpretation
There is an ongoing training of the farmers on how to use new and modern ways of farming and technologies.	3.68	1.145	High
Useful information is got to people through seminars and workshops that have been put in place by the NAADs program advisory services.	3.21	1.240	Average
There are sometimes individual or group training of farmers whereby there is face to face interaction between the teacher and farmers in order to promote new farming methods and technologies from the agricultural advisory services.	3.60	1.121	High
NAADs provide support to production in agricultural among the women in Komambogo	3.71	1.171	High
NAADs provide improved technology to the women farmers in Komambogo parish.	3.45	1.190	High
Grand mean & SD	3.53	1.173	High

N=80

Legend: 1.00-1.79 Very low, 1.80 – 2.59 Low, 2.60 – 3.39 Average, 3.40-4.19 High, 4.20-5.00very high

Findings from Table 5 on that level of household participation in agricultural advisory services in Komamboga were found to be high. The respondents agreed ($\bar{x} = 3.53$; $SD = 1.173$) that they participated in agricultural advisory services, with a moderate variations of the responses from the mean. The findings therefore mean that the

respondents had opportunity or ability to obtain and use available services which are within the vicinity of a potential user from NAADS. In this case, NAADS has been in position to offer extension services, whereby useful information is disseminated to people which assist farmers to be able to acquire skills, knowledge and attitude to make use of the knowledge or technology effectively.

The findings indicated that there is a high agreement among the respondents that NAADS provide on-going training of the farmers on how to use new and modern ways of farming and technologies with a ($\bar{x} = 3.68$; $SD = 1.145$). In this case, the responses show fair distribution of the responses from the mean. This implied that NAADS provide ongoing training to farmers, but the farmers' adoption ideas are still a question to be addressed. Findings revealed that sometimes individual or group training of farmers receive face to face interaction between the extension worker and farmers in order to promote new farming methods and technologies from the agricultural advisory services as shown with ($\bar{x} = 3.60$; $SD = 1.121$). The level of participation was high among the farmers, as they can receive group or individual training on new technologies from NAADS. Similarly, it was found out that NAADS provides support to the production of agricultural among the women in Komambogo with ($\bar{x} = 3.71$; $SD = 1.171$). Therefore in relation to the level of participation in using agricultural advisory services among the respondents was high.

The findings from the interviews noted that NAADS has applied small groups teaching of farmers in their areas towards adoption techniques (SPAT). This has been through group discussions and outings; through the radios, hand bills, circulars, bulletins,

and leaflets. However, the interviews revealed that although the share of NAADS beneficiaries accessing extension services has increased, ensuring the quality and frequency of the services is a major challenge. The interviews farmers complained that *NAADS extension workers lacked the knowledge, skills and/or time to satisfactorily attend to their problems*. For example, our interactions with some key informants during the fieldwork revealed that *some of the extension services officers were doing other works which hindered them to serve them well*.

The documentary assessment showed that NAADS empowers the farmers to be able to participate in the various activities such as: mass sensitisation and awareness raising, verification of existing groups and formation of new groups, farmer group and farmer fora formation and development and enterprise selection and development.

The interviews from the NAADS officials argued that they were more flexible with groups than individuals. For instance, they noted that *for the farmers to minimise risks in farming, that affect increase in productivity and income, it becomes advantageous to join a group and have skills from the trainings that are provided under farmer Institutional development. If a farmer does not belong to a group it becomes difficult to access knowledge provided under the NAADS programme*.

The findings are in line with Manfre and Nordehn (2013) who noted that the increasing women's ownership of and control over mobile phones as an important contribution to increasing access to agricultural information services delivered by mobile technologies. All these success factors indicate the increased role of ICT-enabled solutions in promoting women's empowerment through their participation in information sharing and decision-making processes. It also enhances the interactive functionality provided by traditional and modern ICT services.

Through the interviews it was mentioned that NAADS agricultural advisory services had failed to follow up on women after training to ensure the proper implementation of skills and knowledge gained through training. Some of the farmers noted that: *“NAADS seminars and workshops are held to sensitise farmers on the need to plan, so that the farmers can be able to know their contribution, however, there is little done on ground since most of the officers who train fail to follow up on what happens on ground. Therefore, we sometimes waste a lot of time in training, as we fail to implement due to lack of inputs as well as guidance on ground”*. In a similar manner, the NAADS officials agreed that they provide training and only follow up model groups and not everyone who has received training. They argued that group training and model groups are expected to nurture the individual people on ground in order to adapt the new skills and knowledge gained.

It was also noted that the variations in adoption of usage is as a result of high cost of input such as seeds, fertilizers and knowledge about the technology, gender and support availability. This supported the argument that access to inputs especially fertilizers, agrochemicals (herbicides, insecticides etc.) and machineries is a major limitation to the growth and development of Africa's agriculture (Morris et al, 2007).

Apart from that, the interviews revealed that NAADS addresses the farmers' needs, through organised groups because a group is an entry to NAADS activities. *As individuals they have no access and control in regard to the processes and structures that are meant to transform the natural resource assets of farmers into outcomes that are desired by the farmers*. Some farmers believed that the poor do not benefit from NAADS programme. A male respondent said it was the service providers benefiting for the

system. *“We the poor farmers do not get anything”*. He concluded that *knowledge alone is not enough, there is need for NAADS to provide money to buy seeds and agrochemicals*.

The NAADS officials noted that the principle is to empower farmers and build their capacities to be able to demand for appropriate technologies and agricultural advisory services. However, they lamented that while NAADS takes interest in ensuring that farmers' capacities are built, adoption of practices are still low and increase in productivity is not impressive, because of poor implementation and monitoring. They noted that NAADS mission is to have increase of farmer access to information, knowledge and technology so that there can be profitable agricultural production. NAADS endeavours to have the farmer institutions strengthened where the existing farmers are legally facilitated to register new ones, encourage forming groups and identify capacity building needs. It is not the role of NAADS to oversee implementation among farmers.

They further pointed out that some farmers had not appreciated communication as an essential element in the process of delivery of advisory services in addressing the different needs and interests of farmers. Generally, there was poor communication and information flow system thus the resultant delays in accessing and utilizing agricultural advisory service by respondents. NAADS ensures that *participation is being involved in the decision made, to choose a project for the community, plan, implement, manage and control it. It aims at ensuring that, decisions that affect the community are promoted*.

The documentary records indicated that farmer empowerment is referred to as institutional development and it takes place in the Sub-counties through the farmer groups, the process includes selecting Non Governmental Organisations from a short list

of NGO's of which NAADS Secretariat provides an outline of the evaluation criteria, one of the criteria is that the NGO should be experienced in agricultural sector. As the farmer group capacities are being developed the challenge is that the farmers are faced with different farming experiences based on different projects, so harmonising the different areas of capacity development such as enterprise selection, group formation, market linkage may be gradual, if a visible impact is to be created because each farmer may have a different area of interest. These issues may be affecting the usage of advisory services among farmers from a gender perspective.

It was further found out that the Farmer groups are charged with the responsibility of implementation of the NAADS programme at the grassroots levels, both parish and village. The farmer groups are the nuclear institutions at the grassroots for NAADS implementation, and the effectiveness of their participation will be the principle determinant of the success of NAADS.

Relationship between Gender Equity and Household participation in Agricultural Advisory Services

The third objective of the study was to establish the relationship between gender equity and household participation in agricultural advisory services in Komamboga. It was hypothesized that there is no significant relationship between equity and household participation in agricultural advisory services among farmers. To achieve this objective the study used a Pearson Product Moment Correlation to ascertain the relationship among the variables of study. Table 6 below presents the relationship among the variables of study.

Table 6: Relationship between gender equity and agricultural advisory services
Correlations

		Agricultural Advisory services
Gender equity	Pearson Correlation	.451 **
	Sig. (2-tailed)	.001
	N	80

*. Correlation is significant at the 0.05 level (2-tailed).

In assessing the relationship between gender equity and household participation in agricultural advisory services, the findings in Table 6 showed that gender equity had a significant relationship with access to and use of agricultural advisory services ($r = 0.451$, $p = 0.001$), which implied that there was a significant relationship between gender equity and household participation in agricultural advisory services among farmers. Specifically, in dealing with individual factors gender roles did not have any significant relationship with agricultural advisory services. In this case, the responses showed ($r = -0.006$, $p = 0.966$) which meant that gender roles had no significant relationship between gender equity and household participation of agricultural advisory services; while social factors had a significant relationship with agricultural advisory services ($r = 0.369$, $p = 0.001$) which implied that social factors had a significant relationship with household participation of agricultural advisory services. The findings therefore show that gender equity did not influence household participation of agricultural advisory services, whereas social factors influenced use of agricultural advisory services. This means that based on the findings the null hypothesis which stated that there is no significant relationship between gender equity and household of Agricultural Advisory Services among farmers is rejected. The alternative hypothesis which states that there is a significant relationship between gender equity and household participation of

Agricultural Advisory Services among farmers is accepted. The findings mean that social factors such as norms limit interaction between men and women. Social norms also restrict the extension workers, who were predominantly men, from interacting with women farmers. Therefore, they hinder or influence gender equity and household participation in agricultural advisory services. Technologies also suffer lack of adoption when it demands much external input from the farming communities or demands extra management services (Adekunle, and Fatunbi, 2014). The drudgery in small holder agriculture is sufficiently high to discourage extra activities like multiple spraying to apply agrochemicals and or some labour intensive cultural practices. Often, technologies that are embedded in the seeds are more acceptable at the smallholders' level.

According to the literature, unequal gender norms along with the women's socioeconomic situations have been attributed to women inequality in Africa. For instance, Sanginga and Woomer (2009) studies found that African women are less likely to implement farm technologies and are often misdirected when they do not acknowledge the inherent disadvantages they face. They argue that "both traditional value systems and their modern distortions force women to become household providers rather than income earners, in large part because men retain control over cash crops despite women's help in their production.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

This chapter presents the summary, conclusion and recommendations for the study on gender equity and household participation in agricultural advisory services among farmers in Komamboga Parish.

Summary

The study assessed gender equity and household participation in agricultural advisory services among farmers in Komamboga Parish. The study specific objectives were to: to determine the level of gender equity in accessing agricultural advisory services in Komamboga Parish, examine the level of household participation in agricultural advisory services in Komamboga and establish the relationship between gender equity and household participation in agricultural advisory services in Komamboga Parish.

The study was descriptive-correlational in nature with qualitative and quantitative approaches. A sample of 80 respondents was used and key informants were interviewed from NAADS. The questionnaire, interview guide and documentary analysis was used to gather data.

Findings showed gender equity moderately affect use of agricultural advisory services in Komamboga Parish and household Participation in agricultural advisory services. Gender roles moderately affect use of agricultural advisory services. Findings further revealed an average usage level of agricultural advisory services in Komamboga, which imply that some of the famers were using it, whereas others were not utilizing the

services. Gender roles had no significant relationship between gender equity and household participation of agricultural advisory services. Social factors had a significant relationship with household participation of agricultural advisory services.

Conclusion

Among the 80 farmers in Komamboga parish who accessed agriculture advisory services generally moderately improved on their farms, but gender roles and social beliefs limit the female farmers in equally accessing trainings, nor equally use improved technology and production support. There is an average usage level of agricultural advisory services in Komamboga, which implies that some of the farmers were using it, whereas others were not utilizing the services. It is therefore clear that gender equity affects household participation in agricultural advisory services in Komamboga parish. This may probably show and affirm why there is unbalanced access to these services which has seen the persistent inequality in income generation and this leaves the women very dependent on their husbands. Therefore, the findings do not uphold the Liberal Feminism Theory, which focused on the ideas of equality and liberty. Liberal feminists focus on equal opportunity for men and women in education and all sphere of life.

Recommendations

Based on the study findings, the following recommendations are made;

NAADS needs to deal with gender roles and social beliefs in empowering vulnerable people, especially women, with technology, human capital development and social capital development to help them move from peasant farming to modern farming.

Extension workers need to address gender roles and social beliefs during their trainings to enable the households to fully participate in their advisory agricultural services.

NAADS needs to train more female extension workers to tap into cultures that restrict women to get involved in trainings are that are male dominated.

Financial institutions could help women in agriculture to access land at low interest rates that would greatly alleviate the status of women from a subsistence farmer to a better farmer who makes decisions, uses fertilizers, grows improved crops and uses machines to reach her dreams and potentials.

NAADS needs to change the selection criteria for contact farmers or contact group members-for example, by changing from heads of households to active farmers, so that women are also included.

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APPENDICES

Appendix 1: Questionnaire

GENDER EQUITY AND HOUSEHOLD PARTICIPATION IN AGRICULTURAL ADVISORY SERVICES AMONG FARMERS IN KOMAMBOGA PARISH, KAMPALA DISTRICT, UGANDA

Dear Respondents,

My name is Balaba Tumuhairwe Angela. I am a student of Bugema University pursuing a Master's Degree in Business Administration. I am doing a research on Gender Equity and Household participation in Agricultural Advisory Services among farmers in Komamboga Parish, Kawempe Division, Kampala. This research is for academic purposes only. All information given will be treated with confidentiality. Kindly answer the questionnaire to the best of your ability.

Thank you for your cooperation and time.

Questionnaire

Dear Sir/Madam,

My name is Balaba Tumuhairwe Angela. I am a student of Bugema University pursuing a Master's Degree in Business Administration. I am doing a research on Gender Equity and Household Participation in Agricultural Advisory Services among farmers in Komamboga Parish, Kawempe Division, Kampala. This research is for academic purposes only. All information given will be treated with confidentiality. Kindly answer the questionnaire to the best of your ability.

SECTION A: Background Information

Please write or tick accordingly

1. Gender: Male ☐ Female ☐

2. Age 20-30 years ☐ 31-40 ☐ 41- and above ☐

3. Highest education level attained (Tick the highest achieved):
 - i. Primary School ☐
 - ii. Secondary ☐
 - iii. Tertiary ☐Others (Specify).....

4. What is the size of your land under farming?
 - i. Less than one acre ☐
 - ii. One and half acres ☐
 - iii. Two-three acres ☐
 - iv. More than three acres ☐

5. What implements do you use in the preparation of fields?
 - i. Hand hoe ☐
 - ii. Ox-plough ☐
 - iii. Tractor ☐

iv. Any

other

(specify).....

6. What is the source of your farm capital?

- i. Own savings ☐
- ii. Credit from friends ☐
- iii. Credit from Bank/MFI ☐

SECTION B:

Tick the following table to show to what extent you agree or disagree to the statements presented below.

KEY: Strongly agree = SA, Agree = A; Undecided = U; Disagree = S and Strongly disagree = SD

	Gender roles	SD	D	U	A	SA
1	There is gender discrimination in agricultural practices as it is only looked to be the work of females.					
2	There is unequal access to land, machinery and sources of information which weakens the performance of women farmers.					
3	In households where the men are heads they hinder women from participating in governmental extension programs.					
4	Farm size contributes towards women seeking for agricultural advisory services					
5	Women farmers rarely receive social support such as agricultural advisory services.					
6	The valuation of work is usually governed by the gender considerations which are very biased against the women to receive agricultural advisory services.					
7	There are different roles for males and females which hinders women access and use of agricultural advisory services.					
8	In the community both men and women work to maintain household needs					
	Social beliefs					
9	Male extension agents carefully interact with male farmers' more than female farmers which hinders women access.					
10	Women face cultural restrictions in accessing land than men and the land they control is often of poorer quality and their tenure is insecure					
11	The traditional and cultural norms are the major challenges that limit the access of women to agricultural input, such as agricultural advisory extension services.					

12	The cultural beliefs that women are impure and unclean hinder the agricultural extension officers from attending to them.					
13	NAADS provides modern agricultural production technologies and practices to all regardless of the farmers' gender					
	HOUSEHOLD PARTICIPATION					
14	There is an ongoing training of the farmers on how to use new and modern way of farming and technologies. Useful information is got to people through seminars and workshops that have been put in place by the NAADS program advisory services.					
15	There are sometimes individual or group training of farmers whereby there is face to face interaction between the teacher and farmers in order to promote new farming methods and technologies from the agricultural advisory services.					
16	NAADS provide support to production in agriculture among the rural women in Komambogo					
17	NAADS provide improved technology to the women farmers in Komambogo parish.					
	USE OF ADVISORY SERVICES					
18	Through NAADS program, I have adopted new crop and livestock practices which have increased my farming enterprises					
19	Through NAADS, I have received help in terms technical support which has enabled me to manage natural resources sustainably					
20	I have failed to integrate new technologies because it demands much external input from the technocrats and demands extra management services					
21	I can get more yields from my farm land now as compared when I had no access to services of NAADS.					
22	The use of agricultural production technologies and practices has promoted harvests					

1. How have you benefitted from NAADS programs?

.....
.....
.....

2. What do you suggest to be done in order to improve advisory services from NAADS in Komamboga parish?

.....
.....
.....

Thank you for your co-operation.

Appendix 2: Interview Guide

1. How have gender roles such as responsibilities affected participation in agricultural advisory services?
2. How has headship of the household affected participation to agricultural advisory services?
3. How has culture affected participation to agricultural advisory services?
4. How has decision making affected participation to agricultural advisory services?
5. How has NAADS equipped you to utilize hybrid crops and improve production?
6. How have you benefitted from NAADS programs?
7. What do you suggest to be done in order to improve advisory services from NAADS in Komamboga parish?
8. What are the benefits of NAADS to you as an individual?