

**GENDER BASED FACTORS INFLUENCING FARMER PARTICIPATION IN  
MARKETING OF CLIMBING BEANS (*Phaseolus vulgaris L.*) IN KABALE DISTRICT,  
SOUTH WESTERN UGANDA**

**BY**

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## DECLARATION

I **Kule Birengesy Eriya** hereby declare that this research thesis is original and has never been presented to any institution for award of a degree.


Signature..........date.....13/07/2018.....

This M.Sc. Research thesis entitled “**Gender based factors influencing Farmer Participation in Marketing of climbing beans (*Phaseolus vulgaris L.*) in Kabale district Uganda**” was conducted under our supervision and has been submitted for examination with our approval as academic supervisors:

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## **DEDICATION**

I dedicate this work to my mother Laheri Biira and father Yonesane Mukirania for your unrelenting care and attention in our hours of need. I know the challenges you trampled to bring me this far.

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It is my pleasure to extend my sincere appreciation to the following persons and organizations for their moral and financial support that has enabled me to fulfill my academic requirements.

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## **LIST OF ACRONYMS**

CIAT:	Center for International Institute for Tropical Agriculture
FAO:	Food and Agriculture Organization of the United Nations
FGD:	Focus Group Discussion
GDP:	Gross Domestic Product
ICRISAT:	International Crops Research Institute for the Semi-Arid Tropics
IFAD:	International Fund for Agriculture Development
IITA:	International Institute of Tropical Agriculture
KII:	Key Informants Interviews
MAAIF:	Ministry of Agriculture Animal Industry and Fisheries
NAADS:	National Agricultural Advisory Services
NaCRRI:	National Crop Resource Research Institute
NARO:	National Agriculture Research Organization
PMA:	Plan for Modernization of Agriculture
PRGA:	Participatory Research and Gender Analysis
SACCO:	Savings and Credit lending Cooperatives
SMS:	Subject Matter Specialist
SPSS:	Statistical Package for Social Scientists
UBOS:	Uganda Bureau of Statistics

## ABSTRACT

Although beans (*Phaseolus vulgaris*) are known as a women's crop, women still receive limited financial benefits and control over the incomes from their efforts. This study was conducted in Kabale District to establish gender based factors influencing men and women farmers' participation in the market segment of climbing beans.

This was a cross-sectional mixed methods study. Data were obtained from 155 participants (86 women and 69 men) in three sub counties of Kabale district using a cross-sectional questionnaire survey, FGDs and KII. Qualitative data from the FGDs was analyzed using key content analysis while the quantitative data was analyzed for descriptive statistics using SPSS computer software version 16, STATA version 11 and Micro soft excel 2010.

Results showed that 86% of male respondents were employed as mobile bean traders compared 14% females; 53% males owned retail bean stores compared to 47% females while 67% of female respondents were employed as casual laborers and paid UGX 5,000-7,000Ug.Shs per day compared to 33% male casual laborers who were paid UGX 7,000-10,000Ug.Shs. Men sold an average of 71% of their bean produce while women sold about 54%. Harvesting, winnowing, sorting and drying roles were performed by women while men dominated the storage, transportation, bargaining of price, receiving payment from sales and saving the incomes. Business opportunities such as; agro-inputs, transport services, bulking and selling of beans were dominated by men while women participated in small cash sales to solve urgent family welfare needs. Women's low participation in bean related businesses and control of income was attributed to; time consuming reproductive roles, restrictive cultural norms, low literacy and numeracy skills, lack of financial capital and ownership of transport means.

Based on the findings, there is need to sensitize both women and men to overcome gender stereotypes on marketing roles. Organize farmers into collective bean marketing groups to enable women access better markets, business skills and financial capital to invest in seed multiplication, supply of agro-inputs, bulking and selling of dry beans. Also there is need to invest in technologies that improve bean productivity, simplify winnowing, drying, sorting, value addition, transportation and other labor saving technologies that frees up women's time from reproductive roles in order to create time for women to participate in business.

**Key words:** Gender, market participation, climbing beans, Kabale District.

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## CHAPTER ONE: INTRODUCTION

### 1.1. Background to the study

In Uganda, Beans (*Phaseolus vulgaris L.*) forms part of the traditional diet as a major source of cheap and reliable proteins. More than 60% of the total land area in Uganda is under bean production (UBOS, 2010). Beans provide 25% of the total dietary calorie intake, 45% of the protein intake and are a major source of complex carbohydrates, essential micronutrients, dietary fibre, vitamin B and antioxidants in the nutritionally challenged diets of both the rural and urban poor Ugandans (Kilimo Trust, 2012).

For centuries, beans have been produced mainly by women for food security at household level. However, both men and women farmers are currently combining their labor and inputs in producing beans for income generation especially in western Uganda. This forms about 44% of total bean production where climbing beans is prominent (Ronner & Giller 2012). It is important to note that, the market share for women in Uganda is very low compared to men who dominate the market segment of agricultural value chains (UBOS, 2012).

IFAD (2003) noted that, market participation can be an effective means for farmers to increase their incomes and move out of abject poverty; but studies show that market participation by women in developing countries is low which has slowed down agriculture driven economic growth and increased poverty levels (Barret, 2008).

Compared to men, women farmers and entrepreneurs face a number of disadvantages, including lower mobility, less access to productive resources and limited market information (Gurung, 2006). FAO (2011) identified lack of specific consideration of the needs of women in policy formulation processes, technology design and extension systems as reasons for women's low participation in the marketing of valuable crops.

In Kabale District, farming is dominated by use of traditional agricultural techniques; the tools farmers use are still limited to a hoe and panga; most farmers rely on family labor, which is often comprised of the husband, wife and children. Family food security is a responsibility of women while men are responsible for controlling family resources like land, finance and labor. Common beans double as a staple food and cash crop produced on fragmented land pieces. Productivity levels are low; as a result, food security is fragile with little surplus for sale (UBOS, 2010).

By the year 1998, climbing beans had been introduced in farming communities in Western Uganda as a new technology to replace the low yielding traditional bush beans susceptible to pests and diseases. Currently, climbing beans constitute 20% of Uganda's total land area under bean cultivation (CIAT, 2008). The advantages of climbing beans over bush beans are; increased productivity, less diseases infestation, less cooking time, suitability for value addition, high domestic and export demand (Wortmann 2001). However, according to (Kaizzi *et al.*, 2012), climbing bean production is still below potential and all business activities in the market segment of common beans are dominated by men. Thus, women continue receiving limited welfare gains and income growth associated with bean market participation (Kilimo Trust, 2012).

## **1.2 Statement of the problem**

Whereas smallholder farmers are increasingly engaged in the value chains of marketable crops, evidence suggests that women tend to lose income and control as a product moves from the farm to the market. Sometimes men take over women's enterprises once they become profitable (Spring & Kimberley 2015; Gurung, 2006). In Uganda, women pre-dominate the production segment of grain legume value chains providing 60-95% of the labor force (Ronner & Giller 2012). Although common beans is regarded a women crop (FAO, 2011), they however receive limited financial benefits from their efforts and have limited control over the incomes from their produce (UBOS, 2012). This is driven by underlying gender norms and intra-household relations that define their market participation and control of income (Coles and Mitchel 2010). Factors affecting participation of women and men in marketing of climbing beans is less understood and explored in this study in the context of Kabale District, south western Uganda.

## **1.3 The purpose of the study**

The overall objective of this study was to establish gender based factors that influence men and women farmers' participation in the market segment of climbing beans in Kabale District.

### **1.3.1 Specific objectives**

The specific objectives were to:

- 1.** Determine the extent to which women and men participate in the marketing of climbing beans.
- 2.** Identify the roles of women and men in the market segment of climbing beans.
- 3.** Identify constraints and opportunities for women and men in the market segment of climbing beans.
- 4.** Establish factors influencing women and men's participation in marketing of climbing beans.

### **1.3.2 Research questions**

In order to effectively answer the above objectives, the following research questions were addressed;

1. Examine the extent to which women and men participate in marketing of beans
  - a) *What methods do women and men use to market their beans?*
  - b) *What marketable climbing bean varieties do women and men produce?*
  - c) *What proportions of total bean produce do women and men sell per harvest?*
2. Identify roles of women and men in the market segment of climbing beans
  - a) *What roles do women and men perform in the marketing of climbing beans?*
  - b) *How are the roles of women and men paid for?*
  - c) *How much are the women and men paid for the same tasks?*
3. Identify constraints and opportunities for women and men in the bean markets
  - a) *What factors limit women and men's participation in marketing of climbing beans?*
  - b) *What challenges do women and men face during marketing of climbing beans?*
  - c) *What income generating opportunities are available for women and men in the market of climbing beans?*
4. Establish factors influencing women and men's participation in marketing of climbing beans
  - a) *What social-cultural and institutional factors influencing women and men's participation in marketing of climbing beans?*
  - b) *Who accesses and controls resources used in the marketing of climbing beans at household level?*
  - c) *How do women and men relate with other stakeholders in the market segment of climbing beans?*

### **1.3.3 Significance of the study**

The Findings of this study may be helpful in the following ways:

1. Enable community development workers to understand factors and institutional structures under which women and men can effectively participate in the marketing aspects of climbing beans for sustainable income generation.
2. Provide government policy makers with policy considerations in regard to closing the gender gap in agricultural marketing and enhancing women economic development.

3. Contribute to understanding the discourse on the role of gender in agricultural marketing and extensional education.
4. Help development projects like; N2Africa with the understanding of how to target interventions for women empowerment in the value chain of grain legumes.

#### **1.4 Operational definition of terms**

The following major terms were operationally defined in this study as follows;

**Gender Based:** related to the social cultural meanings of being a man or woman in terms of expected roles, behavior, attitudes, social position and responsibilities.

**Influencing:** refers to contexts, conditions and trends that induce the level of women and men participation in the marketing of climbing beans.

**Farmer Participation:** refers to the involvement of women and men in commercialized income generating activities in the market segment of climbing beans.

**Marketing:** refers to all interconnected activities of planning production, harvesting, sorting, grading, packaging, transporting and storage, agro-processing and trading involved in moving beans from the farm to the consumer.

**Intra –household gender factors:** refers to relationships between men and women within household in regard to decision making, resource ownership and access.

**Inter- household gender factors:** refers to attitudes, social norms, sanctions, institutions that govern relationships and the flow of resources between households.

#### **1.5 Conceptual framework of the study**

The conceptual framework of this study (figure 1.1) presumes that, equitable participation of women and men in the marketing aspects of climbing beans is influenced by several factors. These factors entail socio-cultural norms, access to financial capital, market information, use of improved technologies, government and non-governmental organization support as well as demographic factors. The demographic factors anticipated are; age, sex, marital status and level of education. It is further anticipated that intra-household power relations, control over family resources and the time spent on the triple roles (*productive, reproductive and community roles*) influence women and men's control over incomes and benefits from the input and output markets of climbing beans (Moser, 1993). This is in line with many gender analysis frameworks.

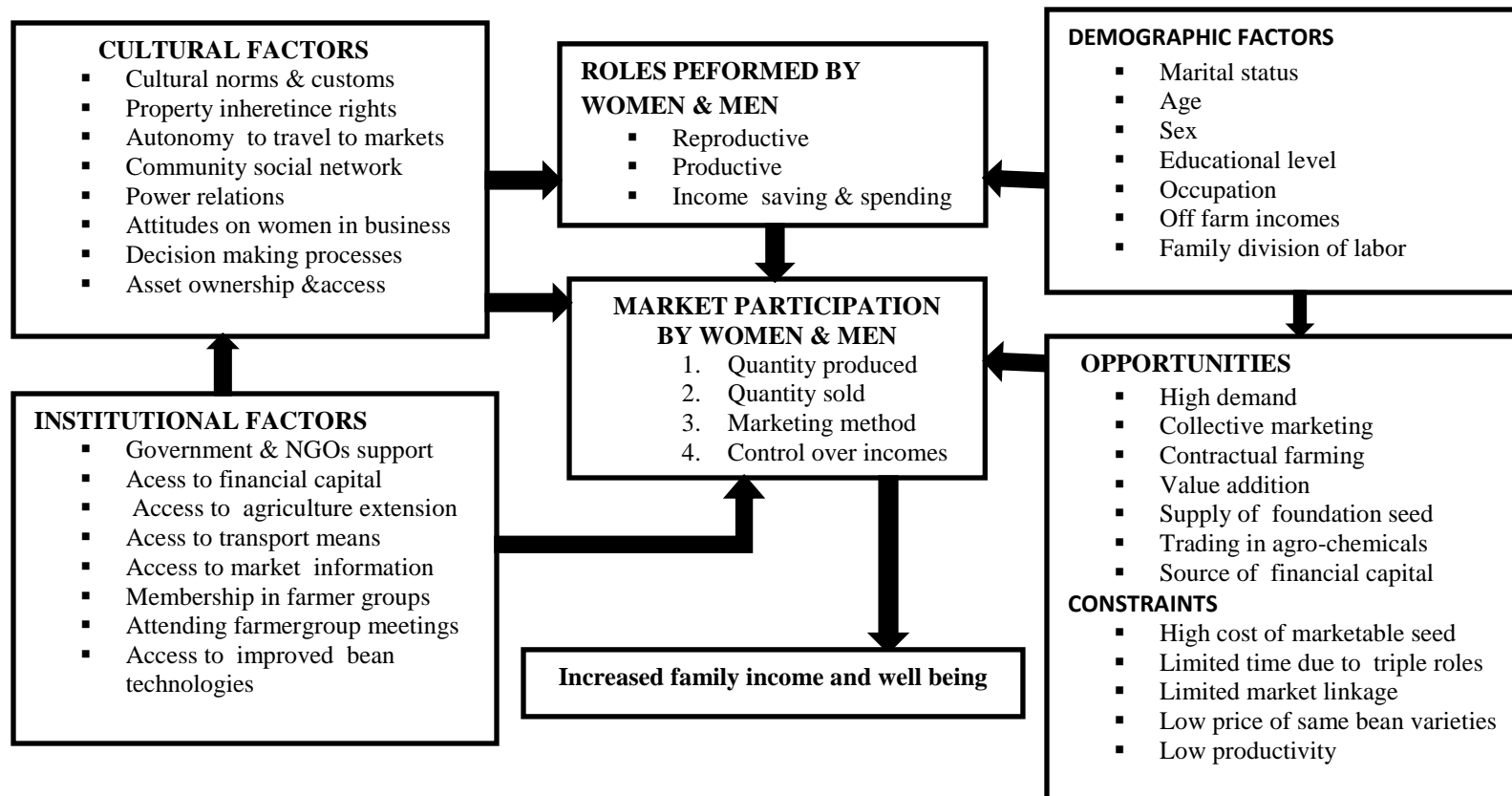
The Harvard Analytical Framework (HAF) and The Moser Gender Planning Framework (MGPF) are useful in informing this study. The HAF helps to map out reproductive and productive work of women and men in a community and highlight the main differences (opportunities and constraints) between sexes (Rao *et al.*, 1991). The MGPF links the examination of men and women's triple roles that relate to production, reproduction, and community management, and the implication that these roles have for their participation in the development process (Moser, 1993).

The Gender Analysis Matrix (GAM) is also a good quick tool that identifies how a particular development intervention will affect women and men (Parker, 1993). The Women's Empowerment Framework which is politically-focused, states that women's poverty is the consequence of oppression and exploitation not lack of productivity and that to reduce poverty women must be empowered (Longwe, 1995; March *et al.*, 1999). ). Further, the Women's Empowerment Framework (WEF) which is politically-focused can be used to investigate whether women's poverty is the consequence of oppression and exploitation not lack of productivity and whether women must be empowered to reduce poverty (Longwe, 1995; March *et al.*, 1999).

The social relations framework argues that: development is a process for increasing human well-being and not just about economic growth or increased productivity. In addition, social relations determine people's roles, rights, responsibilities and claims over others (Kabeer, 1994.).The Gender Dimensions Framework (GDF) identifies specific gender-based structural and institutional constraints that affect the relative status and opportunities open to men and women based on four dimensions; (1) participation and practices, (2) access to resources, (3) knowledge, beliefs and perceptions, (4) government laws, policies, and regulations (Rubin *et al.* 2009).

This study therefore, employed a synthesis of the Harvard analytical framework to map out reproductive work performed by women and men in the market segment of climbing beans and to highlights the main differences; The Moser gender planning framework was used to link productive and reproductive roles of women and men to their level of participation in marketing of climbing beans and the Gender dimensions framework was used to identify how technology interventions affects women and men's participation in marketing of climbing beans (Figure 1).





**Figure 1: Conceptual framework for gender analysis of climbing bean value chain**

## CHAPTER TWO: LITERATURE REVIEW

### 2.1 Introduction

The literature is reviewed according to the study objectives as follows: Overview of gender issues in agricultural development; Gender and agricultural market participation; intra-and inter-household factors influencing farmer participation in agricultural value chains.

### 2.2. Overview of gender issues in agricultural development

Meyers & Jones (2012, p.2) observed that, women and men in most countries, communities and households, perform different roles; have different responsibilities and unequal statuses which result into their different experiences, knowledge, and needs. Therefore development initiatives affect men and women beneficiaries in vastly different ways. Wakhungu, (2010) observed that in the sub Saharan Africa, social inequality is determined by factors such as age, race, gender, ethnicity and social status. These influence development outcomes in different ways in that the disadvantaged have limited access to and control over productive resources, income, skills, information and limited capability to voice their needs and constraints.

FAO (2011) noted that, Society places multiple roles on women that affect implementation designs and outcomes of development initiatives. Indeed, in agricultural enterprises, women have multiple roles where they are cultivators, laborers, processors, traders, and entrepreneurs and yet have limited access to and control over production assets. In Sub-Saharan Africa, women represent 70% of agricultural workers and 80% of food processors (Wakhungu, 2010). Rubin & Manfre (2009) attributed gender disparities in agriculture production and marketing to lack of literacy and numeracy skills among women which prevent them from developing effective negotiation skills with other value chain actors and using modern communication technologies to support their decision-making. Coles and Mitchel (2010) suggest that factors responsible for women empowerment are affected by locations specific social - cultural contexts which differ from region to region.

In Uganda, female workers earn lower wages compared to their male counterparts for the same type of employment (UBOS, 2012). This reflects one of the forms of gendered discrimination in the agricultural labor market. This is mostly evidenced in land preparation, planting and weeding where women on average earn a wage of UGX 18,000Ug.shs (US\$ 5) / day compared to the UGX 36,000Ug.shs (US\$ 10) earned by men (UBOS, 2012, p.15).

### **2.3. Gender and agricultural market participation**

Mellouli (2003) defines participation as a direct involvement of marginalized groups in a development process, which builds people's capabilities to have access to and control of resources, benefits and opportunities towards self-reliance. Women face more severe constraints than men in accessing productive resources, markets and services. This “gender gap” hinders their productivity and reduces their contributions to the agriculture sector and to the achievement of broader economic and social development goals (FAO, 2011, p.3).

Jagwe *et al.*, (2010), noted that, for agriculture to meaningfully contribute to economic growth, farmers need to commercialize their farming activities to produce marketable surpluses. Selling of surplus produce helps farmers to benefit from the direct welfare gains and opportunities that emerge from economies of large-scale production (Siziba *et al.*, 2011; Barrett, 2008). However, most value chains interventions that facilitate smallholder farmers’ linkage to markets pay less attention to the impact of their actions on changes in traditional gender roles and relations especially in production and accessing markets of the agricultural products (Jeckoniah, Ntengua-Mdoe & Nombo, 2013).

FAO (2011) attributed the underperformance of the agriculture sector in many developing countries on women’s lack of equal access to resources and opportunities that enable effective participation in market oriented agriculture. Meinzein-Dick *et al.*, (2011) observed that; Women are more likely to spend on food, healthcare, and education of their children when in control of household incomes than men. Although agricultural development calls for gender equality and transfer of knowledge across generations, the involvement of women in the market segments of high income generating crops is still low (ALINet, 2010; Njenga *et al.*, 2007).

In Africa, grain legumes are called “women’s crops” because women play a larger part in their cultivation for food security while men play a large role in the cultivation of cash crops and other staple crops that generate higher incomes (FAO, 2011). In Uganda, women pre-dominate the production segment providing 80-90% of the agricultural labor force while men tend to dominate the marketing of commercialized crops and sometimes take over women’s enterprises once they become profitable (Kasente *et al.*, 2002; UBOS, 2012).

#### **2.4. Gendered participation in the input and out markets of common beans**

In Uganda, men dominate the value chain of common beans as suppliers of technology inputs, mobile traders, transporters and processors while women are majority subsistence producers. As such, women continue receiving limited welfare gains and income growth associated with agricultural market participation (UBOS, 2012; Ronner & Giller, 2012).

Chianu *et al.*, (2009) noted that, successful integration of women in the input and output market linkages enables their access to technological inputs, financial capital, and well developed markets for their produce and avoids exploitation by middle men.

#### **2.5 Intra-and inter-household factors influencing farmer participation in agricultural value chains**

Majority of women are typically concentrated as producers at the bottom of the agricultural value chains and find it difficult to take on more profitable roles as buyers, sellers and processors.

Their unpaid household maintenance roles consume considerable time, resulting in little time for processing and marketing of their produce (Ellis, Claire & Blackden 2006).

Kasente *et al.*, (2000) identified that in Uganda, lack of control over the benefits from market participation, gender discrimination in access to credit and training against women reinforces a cycle whereby women are unable to invest their time and money into improving production and productivity. This leads to poor product quality and quantity. In Uganda, women in the fruit and vegetable trade lost out as markets were developed in Kampala and for export. In Côte d'Ivoire, government regulations on cooperatives in the cocoa industry made participation by women's groups very difficult, resulting in their marginalization (Mayoux, 2009).

Bardasi, *et al.*, (2007) observed that women who owned off-farm businesses frequently faced more constraints, including less capital and collateral, and received fewer services and support, than businesses owned by men. In some countries, cultural norms inhibit women's participation at higher levels. In Bangladesh, for example, restrictions on the mobility of women resulted into few women entering the market place as vendors or as purchasers, and they rarely act as middlemen (Ashby *et al.*, 2009).

Kaplinsky & Morris (2002) identified that, programs aiming at integrating women into value chains pre-suppose a certain level of resources and capabilities that enable them to take on the risks inherent with engaging with value chain and entrepreneurship. However, men are more able to engage in risk taking, and to grow their businesses due to their superior position in relation to deployment of productive assets, such as land and machinery, and their ability to make major expenditure decisions. Women within male-headed households were found to depend on their ability to maintain relations with male kin to secure access to productive assets. Their decision-making capacity over the use of those assets is demonstrably low in many cases. Female-headed households may as well be able to take autonomous decisions, but they frequently lack sufficient assets for viable livelihoods (UBOS, 2012).

Raswant, Ravi & Nicodeme (2010) noted that, program outcomes are frequently biased in advance against women by assuming a priori homogeneity of interests within or between households. Extension and business support systems continue to direct a greater proportion of technical assistance and extension services to men, even for tasks and crops that women manage, in the assumption that information will be shared. As a consequence, information about new techniques and upgrading may not flow to the right persons. This results into decreased volume and product quality and poor returns to the work of both women and men in value chains.

Farnworth, Akamandisa & Hichaambwa (2011, p. 42) identified that, women and men frequently have distinct varietal preferences due to their different roles and responsibilities within households, in farming, and in value chains of agricultural produce. In Zambia's Northern Province the government-developed a groundnut variety, MGV4, which was widely introduced yet failed catastrophically because it is very oily and hard to pound, and produces an unpleasant-tasting relish. It was assumed that the large-sized nut would be easy to grind for groundnut oil a fact which was not realized due to a lack of consultation with women who are the multiple users of groundnuts. It is therefore important to note that, agricultural production and marketing is sex-sequential, with women and men taking on specific roles at particular points. The separation of tasks by gender may mean that neither men nor women possess a complete understanding of the whole value chain and of how the roles and responsibilities of different actors intersect and interact at different stages. If not acknowledged and worked with, this can hamper value chain effectiveness (Mayoux, 2009).

Household gender relations profoundly affect the intra-household distribution of income. Women and men may collaborate to bring wealth into the family, but the division of the wealth often becomes a source of conflict (Sen, 1990). In many cases, wealth is not divided according to the share brought in by each household member. Rather, division is determined by relative power. In most cases, due to social norms that privilege males, men hold more power than women and thus wield more control over assets and expenditure. A study carried out in Zambia showed that gender-based violence in which women suffered high levels of abuse, increased markedly after harvesting and marketing due to marital conflicts over how to divide income (PLAN, 2005).

Women do not receive rewards commensurate with their knowledge and their effort. This reduces their willingness to invest their time and energy into improving production and processing practices. In turn, this endangers the constant supply of quality materials necessary for a functioning value chain. A study carried out in Uganda on the organic export sector found that whilst the labor of women smallholders was central to the production of export crops, they had little incentive to increase their labor because it is unpaid (Kasente, *et al.*, 2000).

Since women are often responsible for household food security, they have limited scope for increasing labor time for market oriented crop production without a decrease in the amount of time spent on food production. In cases where women are relatively more involved in subsistence production and men are more involved with cash crops, or if women lose their access rights to land as it is converted from traditional to modern cash crops, household food security and nutrition always decline despite a rise in household income (PLAN, 2005).

Ellis, Claire & Blackden (2006, p.77) noted that, in every chain, the likelihood of ‘male takeover’ is high once a certain level of profitability is reached. Ensuring that women develop and maintain a presence across the chain will require the development and application of instruments designed to (a) deepen women’s ownership of assets, including special programs for female-headed households, (b) strengthen women’s voice in household decision-making over expenditure and assets, and (c) develop the capacity of rural producer organizations to represent women’s interests in the market.

Soft investments should include women's literacy programs, entrepreneurship training to enable competitiveness, and redesigning rural producer organizations to ensure they are inclusive of women, including poor women, and are market-orientated. A variety of value-adding strategies, ranging from enabling women to become crop specialists to assisting with product processing should be developed. Hard investments are equally vital. These include ensuring that physical infrastructure, such as processing and storage facilities, means of product transportation, information and communication technologies (ICTs), and the facilities at retail and wholesale markets meet women's needs (Farnworth, 2008, p. 5).

## **2.6 Social –cultural context of the study area**

Kabale district has a large population of 458,318 people, where only 45,892 live in the municipality and the remaining 91% live in rural areas with a population density of 281.1 persons per square kilometer and the average land area for agriculture is 2.06 hectares or 5.08 acres per household(UBOS, 2010). Kabale district consists of majority small landholder farmers who live in nucleated homesteads. Farming is dominated by use of traditional agricultural techniques; the tools farmers use are still limited to a hoe and panga; most farmers rely on family labor, which is often comprised of the husband, wife and children Productivity levels are low; as a result, food security is fragile with little surplus for sale. Farming is on a small scale on scattered pieces of land and primarily at a subsistence level (UBOS, 2010).

The main cash crops grown in Kabale are; wheat, sorghum, tobacco, cabbages, beans, Irish potatoes and coffee. Most families experience food shortages due to the following issues: Pre- and post- harvest losses associated with poor storage, pests, and disease infestation; Declining land size and fertility due to population pressure, land fragmentation, and poor agricultural practices; natural disasters such as floods, dry spells, pests and diseases; sale of food leaving little for home consumption; Poor infrastructure, especially road networks; Low coverage of agricultural extension services; Gender imbalance in food production with over-reliance on women( UBOS, 2012).

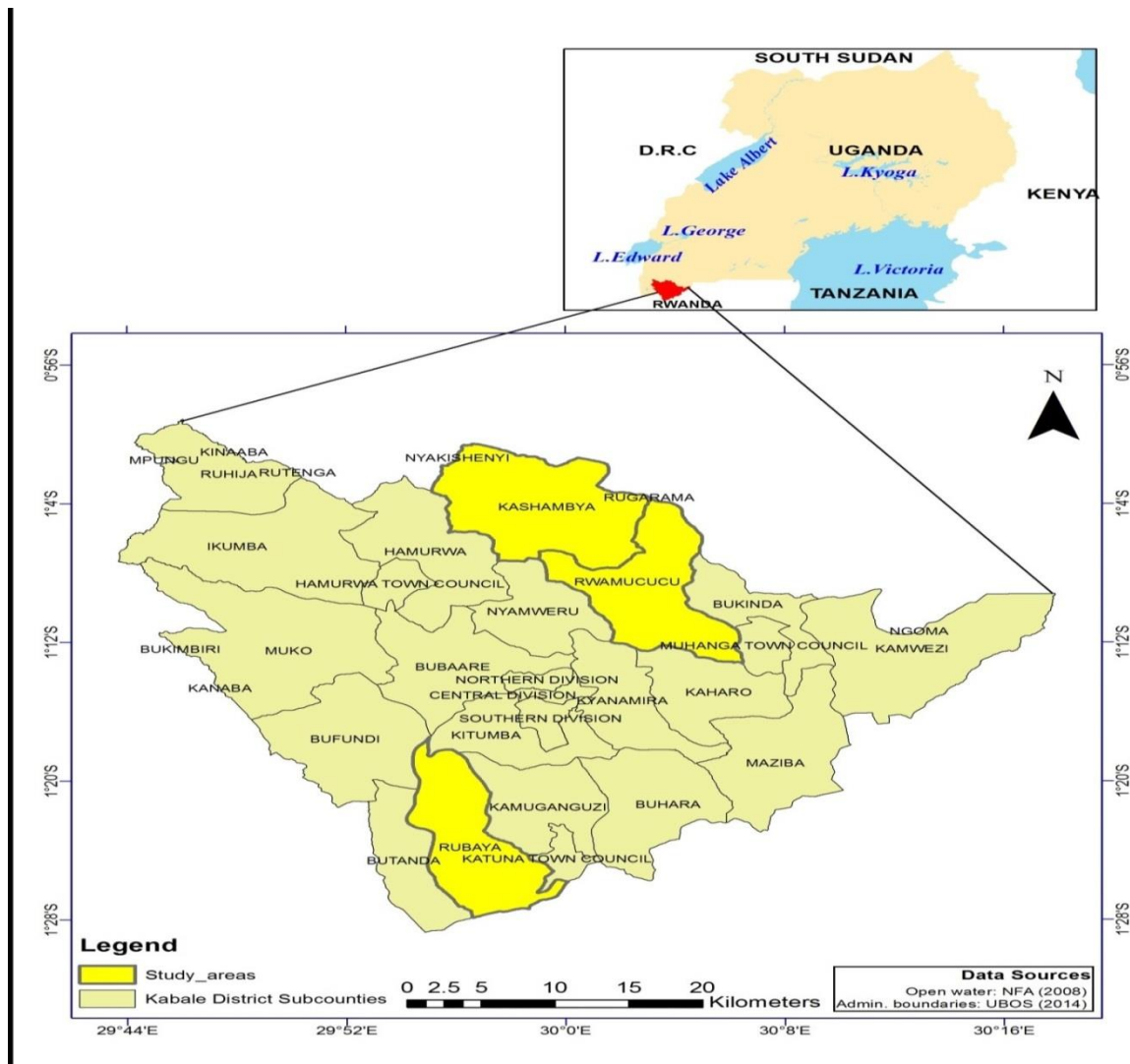
## CHAPTER THREE: METHODOLOGY

### 3.1 Introduction

This chapter describes the procedures and methods used to collect and analyze data. It specifically describes in detail the study area, research design, study population, sampling procedure, sample size, methods of data collection, tools and procedures of data collection and analysis.

### 3.2 Area of Study

The study was conducted in Kabale District South Western Uganda (01°15'S 30°0'E) (Map 1).



Map 2 Map of Uganda showing Kabale district the area of study



Kabale District is the leading producer of climbing beans with developed value chain that consists of input suppliers, producers and traders. Rubaya, Rwamucucu and Kashambya Sub counties in Kabale District were purposively selected for the study based on high production volumes, diversity of climbing bean types and significant trading activities (Ronner & Giller, 2012).

### **3.3 Research design**

This study adopted a cross-sectional mixed methods research design. Quantitative data was obtained from 155 participants (86 women and 69 men) using a cross-sectional questionnaire survey and qualitative gender segregated data was obtained from 24 FGDs and 37KII. The study was conducted in two phases. The first phase was exploratory and focused on collection of qualitative data in regard to how women and men participate in the marketing of climbing beans, bean varieties marketed by women and men, types of marketing activities women and men perform, limiting factors for women and men's participation in the marketing of climbing beans, available income generating opportunities for women and men in the market segment of climbing beans, gendered access and control to marketing resources and the quality of relationship with credit officers, transporters, input and output bean traders dealing with women and men farmers.

The second phase was a cross sectional survey which focused more on collection of quantitative data such as quantity of beans sold by women and men as a fraction of the total harvest, proportion of women and men employed in the input and output markets of climbing beans, how much women and men are paid for the same or different marketing roles, number of women and men affected by socio-cultural and institutional factors and the number of women compared to men who have access and control of resources used in the marketing of climbing beans. Gender analysis tools (Rubin and Manfre, 2009) were adapted specifically to collect data about women and men's participation in the marketing of climbing beans, roles performed by women men in the market segment of climbing beans and knowledge possessed by women and men in the market segment of climbing beans.

Table 1 gives a summary of the research design showing the logical linkages between the research components including study objectives, data required and collection methods, and data analysis procedures. The Gender Dimensions Frame work was used to guide in data collection and analysis.

**Table 1: Research design**

<b>Objectives</b>	<b>Data collected</b>	<b>Specific data collected</b>	<b>Analysis procedure</b>
Extent of Market Participation	Qualitative	<ul style="list-style-type: none"> <li>▪ Marketing methods used by women &amp; men</li> <li>▪ Bean varieties marketed by women &amp; men</li> </ul>	Content analysis
	Quantitative	<ul style="list-style-type: none"> <li>▪ Quantity of beans that women &amp; men sell as a fraction of total bean harvest</li> </ul>	Descriptive percentages & Chi-square test
Gender roles	Qualitative	<ul style="list-style-type: none"> <li>▪ The types of activities women &amp; men do in the marketing of beans and reasons why</li> <li>▪ How the different services performed by women &amp; men are paid for in the marketing of beans</li> </ul>	Content analysis
	Quantitative	<ul style="list-style-type: none"> <li>▪ How much are the women &amp; men paid for the same tasks</li> <li>▪ proportion of women &amp; men employed in input and output markets of climbing beans</li> </ul>	Frequency tables & percentages
Constraints & Opportunities	Qualitative	<ul style="list-style-type: none"> <li>▪ limitation for women &amp; men participation in the marketing of beans</li> <li>▪ Income generating opportunities available for women &amp; men in the bean market segment</li> </ul>	Content analysis
	Quantitative	<ul style="list-style-type: none"> <li>▪ Number of women &amp; men engaged in income generating activities in the market segment of climbing beans</li> </ul>	Frequency tables Percentages & Chi-square tests
Factors influencing market participation	Qualitative	<ul style="list-style-type: none"> <li>▪ Socio-cultural factors influencing women &amp; men's participation in climbing bean markets</li> <li>▪ Institutional factors influencing women and men's participation in climbing bean markets</li> <li>▪ Women and men's access and control of resource used in the marketing of climbing beans</li> </ul>	Content analysis
	Quantitative	<ul style="list-style-type: none"> <li>▪ Number of women and men affected by socio-cultural and institutional factors</li> <li>▪ Number of women and men who have access and control of resources used in the marketing of climbing beans.</li> </ul>	Frequency tables Percentages & T-test Chi-square tests Ordered probit model

### 3.4 Study Population

The target population was women and men involved in production of climbing beans in Kabale district. Four FGDs consisting of women only, men only, female youth only and male youth only groups in each of the two selected parishes in three sub-counties were conducted for qualitative data to give an in-depth understanding of gender issues in the marketing aspects of climbing beans. Separate gender groups encouraged free talk without fearing the opinions of the opposite sex. FGDs were conducted at parish where community based facilitators (CBF) meets with village saving and cooperative association members for their weekly meetings. In total, 24 FGDs representing 71% of the registered farmer groups in the three sub counties were conducted based on their functionality and production of climbing beans. The extension workers, community development officers, farmer group leaders, bean traders and credit officers were interviewed as key informants to triangulate findings from FGDs because of their supportive role to farmers involved in production and marketing of beans.

**Table 2 Study sample used for data collection**

Source of data	Sub county	Male	Female	Total
1. FGDs	Rubaya	96	124	220
	Rwamucucu	64	158	222
	Kashambya	58	78	137
Sub-total		<b>218</b>	<b>360</b>	<b>574</b>
2. KII	Rubaya	6	8	14
	Rwamucucu	7	5	12
	Kashambya	5	6	11
Sub –total		<b>18</b>	<b>19</b>	<b>37</b>
3. Cross- sectional survey	Rubaya	19	39	58
	Rwamucucu	27	20	47
	Kashambya	23	27	50
Sub-total		<b>69</b>	<b>86</b>	<b>155</b>

### 3.5 Sample selection procedure and size

A multi-stage sampling technique was used involving stratified, cluster and random selection techniques to select farmers to participate in this study. In Sub-counties and parishes where this

research was conducted, sample population was selected from stratified non-overlapping women and men farmer group members and non-group member for conducting FGDs and from which simple random sampling was taken for comparison purposes.

The sample size of household survey for collection of quantitative data was determined based on the total number of households in the three selected sub-counties following the Allyn and Bacon (2010)'s formula.

$$n = \frac{PQN}{(SE)^2 N + PQ} \dots\dots\dots \text{Equation 1}$$

n = Sample size

SE = Standard error of the population

P = Population of households growing climbing bean production

q = 1-p and N = Total population of households

SE =  $\frac{0.10}{2.58}$  at 99% confidence level =0.04, N= 16,837 P =0.5 and q =1-0.5 =0.5

$$n = \frac{0.5 \times 0.5 \times 16,837}{(0.04)^2 \times 16,837 + 0.5 \times 0.5} = \mathbf{154.814}$$

Therefore the sample Size (n) was taken as **155 households**.

### **3.6 Methods used and tools for data collection**

#### **3.6.1 Focus Group Discussions (FGD)**

For qualitative data, FGDs were conducted with selected farmer groups selected from Kibuga and Mugandu parishes in Rubaya Sub-county; Mparo and Noozi parishes in Rwamucucu Sub-county and Rutengye and Kafunjo parishes in Kashambya Sub-county based on their experience in climbing bean production and marketing. Group members were separated during FGDs based on sex and age into smaller groups of 7-8 participants to encourage free talk and collect data based on gender groups and later mixed to build consensus on the information collected in separate groups.

FGD checklists and gender tools were used. The influencing factor tool was used to establish how community norms & practices, Attitudes, Demography, Institutional structures, Economic status, Training, Political and legal parameters influence the level of women and men participation in the marketing of climbing beans. Access and control profile of resources and benefits tool was used to assess gendered ownership and access of resources used in the marketing of beans and in identification of who controls the benefits from the resources at both household and community level.

The Stakeholder analysis tool was used to examine the quality of relationships between farmers and other value chain actors such as; traders, extensional workers, technology input suppliers and credit officers and establish how those relationships differ as a result of gendered social norms.

### **3.6.2 Key informant interviews (KII)**

Key informant interviews (KII) with traders, extensional workers, community development officers and farmer group leaders were conducted. Stakeholder Analysis Tool was used to examine the quality of relationships between farmers and other value chain actors of climbing beans and how those relationships differ as a result of gendered social norms.

### **3.6.3 Household survey**

For quantitative data, across sectional survey using a household questionnaire (Appendix 1) was conducted in Rubaya, Rwamucucu, and Kashambya sub-counties of Kabale district.

Access and control Profile of resources and benefits tool was incorporated in the household questionnaire in order to assess gendered ownership and access of resources used in production and marketing of climbing beans and identify who among women and men controls incomes and other benefits from the sale of climbing beans.

A total number of 155 participants consisting of 86 females and 69 male farmers of climbing beans were randomly selected from farmer lists of Rubaya, Rwamucucu and Kashambya sub-counties provided by their farmer group leaders. Household questionnaire had questions to capture information on social and demographic characteristics of farmers of climbing beans, quantities of beans sold per season, production and marketing resource ownership and access, control of family incomes and other benefits from climbing beans, gendered division of labor and factors influencing women and men's participation in the marketing of climbing beans.

Appointments to visit the selected farmers were made and consent sought from the selected respondent on whether they were willing to participate in the study. The purpose of study was clearly explained to the respondents as part of the process of securing informed consent.

### **3.7 Reliability and validity Tests**

The gender tools used in conducting FGDs are standardized tools that have been used in previous studies by development organizations like the USAID and FAO. They were peer reviewed by the

research experts at Makerere University and IITA. Questionnaire, KI and FGD checklists were pretested in Bubare sub county Rubanda district and unclear ambiguous questions were identified and corrected which ensured reliability in actual study area.

### **3. 8 Data analysis**

Data was analyzed using both qualitative and quantitative methods. Qualitative data was transcribed, cleaned and analyzed into thematic areas using content analysis and results triangulated across research method.

For quantitative data analysis, Data was coded and entered into the Statistical Package for Social Sciences (SPSS) version 16 for cross tabulation frequency tables and chi square tests of significance. Transfers were made to STATA version 11 to run T-tests; and to excel where tables and graphics were generated. Descriptive analysis was carried out to generate percentages, means and standard deviation. T-test statistics and chi-square/Z- tests were used to test for differences in means and proportions respectively.

Objective 4 was addressed by estimating an ordered probit model which was used to measure the level of women and men's participation in the marketing of climbing beans.

The level of marketing participation was measured by participation index that included; 1 High level (consisting of collective and contractual marketing). 2. Moderate level (consisting of moving to markets, selling in personal stores and as retail store owners) and 3.Low level consisting of selling to exploitative middlemen.

In this study, dependent variable  $Y_i$  is a utility index of participation in marketing of climbing beans where  $Y_i$  is a function of the different socio-economic factors (Table, 16).

Market participation index were in three categories; High, Moderate and Low and three dummies were generated; High taking on 1 and 0 otherwise, Moderate taking on 1 and 0 otherwise and Low taking on 1 and 0 otherwise (Table, 17).

Gender of the respondent was captured as male and female, however dummy variable for gender was generated by taking on the value of 1 if man and 0 otherwise and the mean value for gender and other social-economic variables were calculated ( table 17).

Based on marketing methods used by women and men, marketing participation level index (ML) was constructed for consideration as a categorical dependent variable that is; High, Moderate, and Low. Market participation was measured as a discrete choice variable based on methods used in market participation (MP). This market participation was expressed as follows:

$$\ln Y_i = \beta_0 + \beta_1 \text{Age} + \beta_2 \text{Mari} + \beta_3 \text{Edu} + \beta_4 \text{Head} + \beta_5 \text{Vols} + \beta_6 \text{Land} + \beta_7 \text{Off} + \beta_8 \text{Mkt} + \beta_9 \text{Auto} + \beta_{10} \text{Ext} + \beta_{11} (\text{Bean}) + \beta_{12} \text{lead} + \beta_{13} \text{Head} + \beta_{14} \text{Deci} + \beta \text{Use} + \mu_i$$

Where;  $\ln$  = Natural logarithm, Dependent Variable ( $Y_i$ ) = Market participation level,  $\beta_0$  = Value of the regression coefficient.  $\beta_1 - \beta_n$  = vectors of coefficients associated with vectors of variables ( $X$ ) that explain the change in probability of market participation.

$X_1$  to  $X_{14}$  = Independent Variables Which include; Age, marital status, gender, educational level, household headship, volume sold, land size, off farm employment, access to market stalls, autonomy to travel to markets places, access to extension, bean innovation platforms membership, involvement in leadership of marketing groups, use of technology, and involvement in decision making (table, 17).

### **3.9 Ethical Considerations**

Participation in this study was voluntary and all information collected was kept confidential; only for use for its intended purpose. Although, respondents were encouraged to participate, they were requested to feel free in responding to questions. The KII guides included a provision for seeking the consent of respondents before proceeding with the interview. Participants in focus group discussion were allocated numerical numbers (1, 2, 3...) and were asked to say this number before speaking. This made transcription and subsequent analysis easier.

## CHAPTER FOUR: RESULTS

### 4.1 Introduction

The purpose of this study was to establish factors that influence women and men's participation in the market segment of climbing beans in Kabale District. The findings first describe the social-economic characteristics of farmers involved in the study and thereafter the results are presented according to the study objectives and research questions.

### 4.2 Socio economic characteristics of farmers

Farmers involved in the study were characterized based on level of education, age, sex, land access types, off-farm employment, marital status and household headship (Table 3).

**Table 3: Socio- economic characteristics of respondents in the area of study (155)**

Characteristic	Description	Women (n=86 ) %	Men (n=69) %	Overall (n=155) %	X <sup>2</sup> -value
Level of education	Primary	70	48	60	7.6976 **
	Secondary	25	43	34	
	Tertiary	5	9	6	
	Less than 35 Years	61	71	65	6.587 *
	36-60 +Years	39	29	35	
Land access types	Communal land	31	25	28	23.4985***
	Hiring	58	32	46	
	Use family land	12	43	26	
Off- farm employment	Yes	30	78	52	35.3608***
	No	70	22	48	
Marital status	Married	93	94	93	1.0330
	Single	7	6	7	
Household headship	Yes	28	72	84	27.340***
	No	72	24	16	

*\*, \*\*, \*\*\* Represents significance at 10%, 5% and 1% levels respectively*

Table 3 shows that climbing bean production was dominated by women (55%). According to FGDs this was attributed to women being culturally responsible for production of food crops. More women compared to men hired land for climbing bean production and only 12% females compared 43% males used family land. The gender difference in land access types was significant at 1% due to biased cultural land inheritance rights in favor of men who had control over family land and allocated to themselves the most fertile piece of land (*'Engaragazi'*) for their separate commercial gardens (*'Omwehereko'*) to meet their financial family and social responsibilities (Women FGD, Rubaya).



More men than women had off-farm employment which was attributed to higher levels of formal education among men (FGD, Rwamucucu).

#### 4.3 Extent of participation in the marketing of climbing beans by women and men

This study, in part, sought to examine the extent to which women and men participate in the marketing of the climbing beans in Kabale district. The methods women and men use in marketing climbing beans were explored (Table 4).

**Table 4 Methods used by women and men in marketing climbing beans (n=155)**

<b>Selling method of climbing beans</b>	<b>Women (n=86) %</b>	<b>Men (n=69%)</b>
Sell to mobile traders	84	16
Travel to market places	33	67
Contractual farming	20	80
Collectively marketing	33	67
Sell to retail traders	38	62
Advance payment	95	5
Sell in personal store	48	52

The investigation revealed that 84% of the women sold their produce to mobile traders while 67% of the men sold their produce by traveling to markets. According Men’s FGDs, men preferred to travel to the markets for better prices that were higher than that offered by mobile traders by difference of UGX 200-300Ug.Shs/Kg. Women on the other hand, avoid spending on transport costs and had limited time to travel to market places because of heavy domestic workload (Women FGD, Rwamucucu).

Women also reported having urgent needs for money to solve pressing family welfare needs and thus would not wait to get to the market places and this explains why farmers who were advanced money before harvest were 95% women. While more men (80%) used contractual farming. According to majority FGDs and KIIs, this was attributed to men’s ability to provide the quantity of seed demanded by bulk buyers, access to market information and good social network with local governments, seed companies and non-government organizations who are the leading bulk buyers of climbing bean seed. The study also revealed that more men were employed in off farm- income generating activities while women depended on providing causal labor and selling beans at farm-gate prices (Table 5).

**Table 5 Category of income generation in the market segment of climbing beans (n=155)**

<b>Income source</b>	<b>Women (n=86)%</b>	<b>Men (n=69) %</b>
Farm gate- selling of beans	61	39
Middlemen/ mobile traders of beans	14	86
Ownership of bean retail store	47	53
Transportation of beans	17	83
Provision of casual labor	67	33

Further, 86% of men were employed as mobile traders or agents of bulk buyers compared 14% of the women. Most women supplemented their incomes from selling beans at farm gate prices by providing casual labor for seed planting, weeding, harvesting and winnowing at a daily wage of UGX 5000-7000Ug.shs. Men provided casual labor for bean staking, spraying of pesticides, fertilizers application and transporting the produce at cost ranging from UGX 7000-10,000Ug.shs. (Women FGD, Rubaya).

#### **4.3.1 Climbing bean varieties produced by women and men**

Climbing beans varieties grown in Kabale district were categorized into; the highly marketable bean varieties costing UGX 1800-4000Ug.shs/Kg throughout the year (Table 6) and the low priced bean varieties costing bellow UGX 1800Ug.shs /Kg throughout the year (Table 7).

**Table 6 Production of highly marketable bean varieties by gender (n=155)**

<b>Highly Marketable varieties</b>	<b>Women (n=86) %</b>	<b>Men (n=69) %</b>
NABE 12C/ <i>Sugar 31/ Katuna</i>	41	59
NABE 26 / <i>Kachwekano</i>	66	34
<i>Kachira</i>	53	47
NAROBAN 5C / <i>Nyiramuhondo</i>	57	43
<i>Mutale</i>	71	29
Flat white bean	75	25
None of marketable varieties	90	10

Table 6 reveals that more women than men produced NABE26C, *Kachira* and NAROBAN 5C. Higher involvement of women in the production of NABE26C was attributed to early maturity, tolerance to some field pests and minimal use of fertilizers (Women FGD, Kashambya). Its price ranged from UGX 2500-2800Ug.Shs/Kg. It was also reported by women in FGDs that they produced *Kachira* because of its sweetness, high yields, tolerance to low soil fertility, high resistance to aphids and less requirement of staking materials. Its price ranged from UGX 1800-2000Ug.shs.

The study also reveals that more women produced NAROBAN 5C because of its nutritional value (believed to be fortified with iron) moderately resistant to aphid, rats and birds and its small size which provides more seeds for planting per kilogram per unit area compared large sized NABE seeds. Its price ranged from UGX 2800-3000Ug.Shs/Kg (FGD, Rubaya).

There were more men than women producing NABE 12C. The price of NABE 12C ranged between UGX 2500-3000Ug.shs/Kg compared to other varieties whose price was below UGX 2500Ug.shs/Kg (Men FGD, Rubaya). Women’s low participation in production of NABE 12C was attributed to its need for considerable use of artificial fertilizer, high susceptibility to destruction by rats at germination stage and *Meshore birds* at flowering stage (Women FGD, Kashambya). It was also reported by key informants that the men who could not afford buying artificial fertilizers were the ones involved in planting *Kachira* beans. Although women like the NAROBAN 5C for its small size which results into more planting seeds per unit area, men complained of its small size and light weight which makes it less economical (FGD, Rubaya).

**Mutale and white flat beans** were new varieties being promoted for export and piloted by A2N Africa 2000 a non-government organization with mainly women as the most experienced producers of beans for participatory evaluation.

As shown in Table 7, women are the main producers of low marketable climbing bean varieties. These varieties were preferred by women because they are early maturing (2-3 months), high yielding and moderately resistant to aphids and caterpillars (FGD, Rubaya).

**Table 7 Production of low priced climbing bean varieties by gender (n=155)**

<b>Cheap climbing bean varieties</b>	<b>Women (n=86) %</b>	<b>Men (n=69)%</b>
<i>Kyenyera-mbure</i>	66	34
<i>Kabwiseri</i>	60	40
<i>Ibanga-rwa-Kagame</i>	73	27
<i>Kunkuryembarukye</i>	80	20
<i>Rushare</i>	71	29
<i>Mashemererwa</i>	56	44

Women in FGDs stated that they produce *Kyenyera- Mbure* because its pods do not easily shatter when dry in the field. Thus, this variety is ideal for food security. *Kabweseri* was preferred because it takes less time to cook thus saving firewood. In addition to the other positive

attributes, *Ibanga rye kagame* was preferred because of its ability to endure heavy rains, and does well with minimal staking materials (FGD, Rubaya). Further, *Kankuryembarukye* was also preferred by majority women in FGDs because it can be stored for long periods with minimal damage by weevils. The market price for the low priced climbing bean varieties ranges between UGX 800-1800Ug.shs/Kg with *Kabweseri* variety fetching the lowest price and *Kyenyera-Mbure* fetching the highest (FGD, Rwamucucu).

#### 4.3.2 Proportions of climbing beans sold by women and men

The quantities of beans produced and the proportions sold by men and women were investigated. The results revealed that, on average, men produced 1308 Kg/ person/ year and women produced 408 Kg/ person/ year (FGDs). On average, men sold 71 % of their produce while women sold 54 % of their produce (Table 8).

**Table 8 Amount of climbing beans sold by women and men (n=155)**

Amount of climbing beans sold	Men (Mean)	Women (Mean)	T	P-value
% sold/season	70.72464	54.24419	-8.2036	0.0000
Volume(kg) sold/season	462.6957	110.4302	-3.7680	0.0001

The difference in the amount of beans sold by women and men was attributed by participants in FGDs to women being responsible for family food security while men sold much of their produce in bulk to invest in costly ventures such as buying land, investing in agro-inputs and other businesses. The results from the survey data (Table 8) also show that women on average sold 110 Kg/ person/season in small amounts while men sold 463Kg/ person / season in bulk.

#### 4.3.3 Reasons influencing proportions of climbing beans sold by women and men

Reasons that influenced the proportions of beans sold were investigated. These were found to include: paying debts, buying permanent assets, reserving beans for family food, investing income in business, paying school fees, paying medical bills, buying scholastic materials and procuring agro-inputs.

**Table 9 Reasons influencing the amount of beans sold by women and men**

Reasons for amount of beans sold	Women (n=86)%	Men (n=69)%	Overall (n=155) %	$\chi^2$ -value
Paying debts/advanced money	94	43	74	61.280***
Buying permanent assets	76	95	86	19.4893 ***
Reserving beans for family food	93	6	55	143.1329***
Investing income in business	41	90	63	39.5055 ***
Paying school fees	92	91	91	0.0760
Paying medical bills	93	58	80	69.3341 ***
Buying scholastic materials	64	9	37	59.364***
Procuring agro-inputs	50	77	62	11.6735***

\*, \*\*, \*\*\* Represents significance at 10%, 5% and 1% levels respectively

The results reveal that family welfare needs such as paying debts, medical bills and buying scholastic materials significantly determined the amount of beans women sold. However, more men compared to women sold their beans in order to buy permanent assets like land and investing in income generating businesses like motorcycle for transport hire and buying agro-inputs such as improved planting seed, fertilizers, pesticides and fungicides. About 93% female farmers prioritized reserving part of their produce for family food security unlike men. Both women and men sold their beans to pay school fees with no significant difference.

A women's group leader explained the above gender variation in this way:

*'Women are responsible for family food security and only sell half of their food produce to cater for family welfare needs like salt, sugar, cooking oil, household utensils like; saucepans, clothes and buying scholastic materials for children at school and contributing to social community functions like church construction, wedding ceremonies and burial. while men sell almost all their produce to invest in buying land, constructing houses, paying school fees and some men have a daily social obligation of buying alcohol to drink with friends' (group 3, participant 7).*

In households where the persons selling the beans were only females, it was reported that the beans sold (100%) was produced by women and none of what was produced by men were sold by the women. However, in households where the persons selling were males they sold all what the men had produced and about 36% of what women produced (Table 10).

**Table 10 Gendered participation in marketing activities of climbing beans**

Extent of market participation	Description	Producer		Market participation (n =155)%
		Women (n=86)%	Men (n=69)%	
Selling person in the household	Female	100	0	17
	Male	36	64	66
	Both	85	15	17
Selling form of beans	Dry	69	31	72
	Fresh pods	34	66	2
	Both	20	80	26
Market information Access	Female	100	0	10
	Male	50	50	84
	Both	67	33	6
Price negotiation	Female	100	0	6
	Male	50	50	88
	Both	90	10	6
Decision making on how much beans to sell	Female	100	0	13
	Male	21	79	49
	Jointly	85	15	38
Decision making on income use	Female	100	0	5
	Male	20	70	48
	Jointly	77	23.	47

In households where both men and women participated in the selling of the beans, 85 % of the beans were produced by women. Results also show that 69 % of the women’s produce was sold in dry form because dry beans are easily stored for family food security and used as seed for the next season. 66% men sold their beans as fresh pods; this according to results from men’s FGDs was due to higher incomes gained from the sale of fresh beans while avoiding threshing cost.

Women made decisions on how much beans to sell in households where 100% women were the producers of climbing beans. On the other hand, men dominated decision making in household where 79 % men were producers of climbing beans. Joint decision making on how much beans to sell was evidenced in households where majority (85%) producers of climbing beans were women.

Joint participation in price negotiation was observed in the household where women and men equally participated in climbing bean production. However, even in the households where 90% of the beans were produced by women, their male counterparts participated in price negotiation.

#### 4.3.4 Roles of women and men in the market segment of climbing beans

This study investigated the roles of women and men in the marketing of climbing beans in Kabale district (Table 11).

**Table 11** Roles of women and men in the market segment of climbing beans (n=155)

Roles in the market segment of beans	Women	Men	Jointly	$\chi^2$ -value
	%	%	%	
Harvesting	84	2	14	13.0519***
Threshing	8	69	23	2.6226
Winnowing	94	1	5	7.7453 **
Drying	61	9	30	36.056***
Sorting	93	3	4	4.4333
Packaging	4	40	56	9.4306 ***
Storing	4	93	3	8.5766 **
Transportation	4	84	12	12.2910***
Actual selling	9	86	5	19.4893***
Saving income	7	74	19	26.4160***
Planning & income expenditure	10	51	39	19.5034****

\*, \*\*, \*\*\* Represents significance at 10%, 5% and 1% levels respectively

Table 11 shows that women provided labor mainly in harvesting, winnowing, sorting and drying. While men consolidate their control on family produce towards marketing by storing and transporting the produce to the market.

According to women's FGDs, most of the bank accounts where the money was deposited were in the names of men who were the heads of the household and financial controllers in the family. The difference in marketing roles was due to women's welfare responsibilities that constrain them at home, inability to ride bicycles and motorcycles to transport the produce, low literacy and numeracy skills compared to men (FGD, Kashambya).

Currently, there is an increase in performing some roles jointly such as; packaging, planning for family income, drying, threshing and harvesting as a result of gender equity trainings by NGOs and local government community development officers (FGD, Rubaya)

According to Men's FGDs, dominance of men in storing, transportation, actual selling, saving and planning for family income expenditure was justified by their ability to ride bicycles and motorcycles, higher literacy and numeracy skills. While women's FGDs, attributed women's dominance in harvesting, winnowing, and sorting to accumulated practical experience which makes them efficient in performing such roles traditionally regarded as women's roles.

Women also dominated drying of beans because unlike men, women are always at home while men are involved in off-farm income generating activities and other social engagements (FGD, Rubaya).

Joint cooperation between women and men in packing, threshing and harvesting was linked to introduction of highly marketable bean varieties like NABE 12C that attracted men in commercial production of beans and trainings on the value of sharing roles by government and non-government organizations (FGD, Rubaya)

Gender differentiated roles were also observed in offering casual labor to other farmers of climbing beans. 67% women were reported providing casual labor for planting seed, weeding, harvesting, winnowing and sorting at cost of UGX 5000-7000Ug.shs/day while 33% male farmers provided casual labor for spraying, staking, threshing and transporting the produce at cost of UGX 7000-10,000Ug.shs/day ( FGD, Rubaya).

According to results from women's FGDs, even for the same piece of work such as primary and secondary tillage, men were paid higher than women with difference of UGX 1000-2000Ug.shs/day which was attributed to women spending less time doing paid work by first doing their family reproductive tasks, breastfeeding alongside doing paid work and requesting food for themselves and their children at the work place.

#### **4.3.5 Gendered constraints and opportunities in the market segment of climbing beans**

This study, in part, sought to identify constraints and opportunities for women and men's participation in the market segment of climbing beans (Table 12).



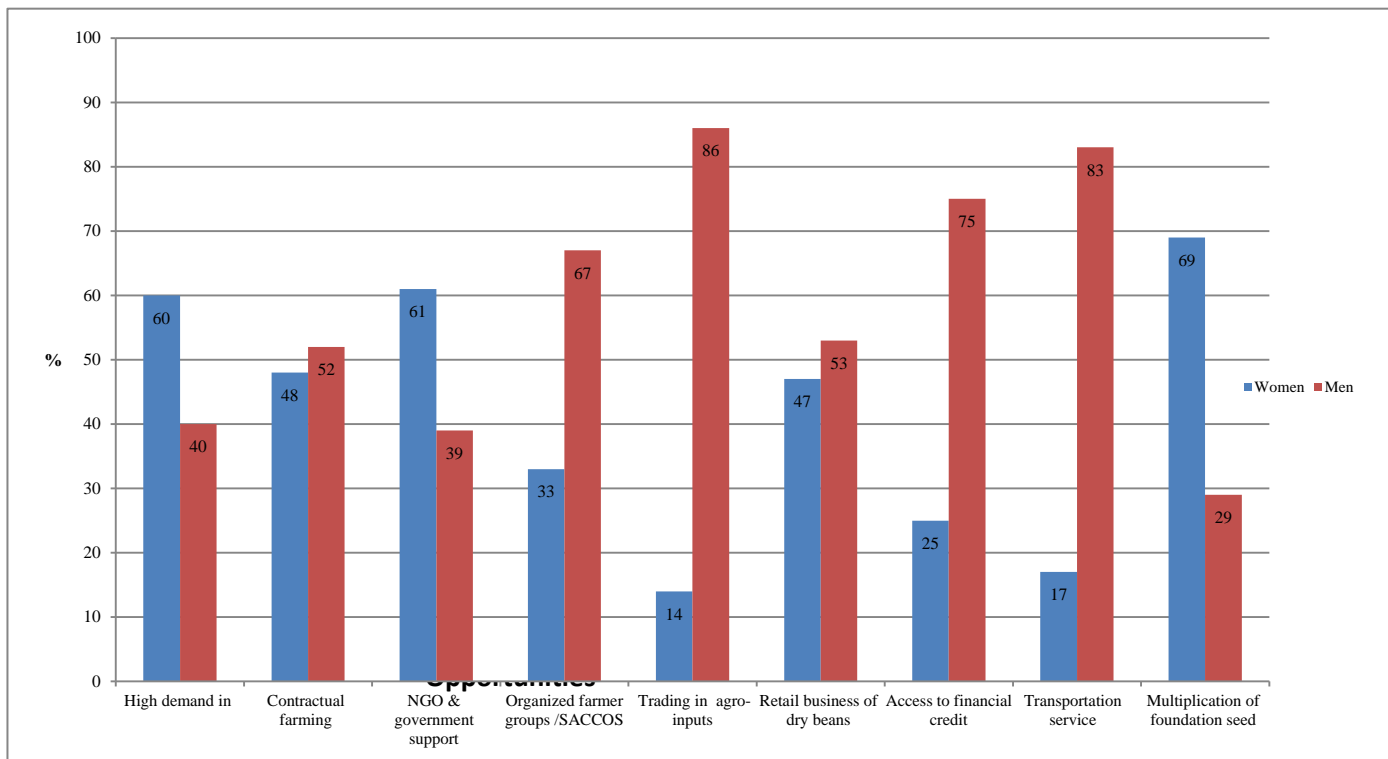
**Table 12 limitations of women and men in the marketing of climbing beans (n=155)**

<b>Limitations for market participation</b>	<b>Women (n=86)%</b>	<b>Men (n=69) %</b>
High cost of marketable seed varieties	57	43
Limited knowledge on bean processing	10	90
Limited time due to triple family roles	94	6
Limited market linkage	65	35
Dealing in cheap bean varieties	79	21
Low production for bulk buyers	35	65
Lack of autonomy to make decisions	75	25
Lack of collective marketing	38	62
Biased property inheritance rights	75	25

The table 12 results shows that women identified limited time due triple family roles, lack of autonomy to make economic decisions, biased property inheritance rights, limited market linkage and high cost of planting seed for marketable bean varieties as their major limiting factors hindering them from benefiting from climbing bean business opportunities.

Men identified limited knowledge on bean processing, supply in small volume to bulky buyers, lack of collective marketing and high cost of planting seed and other agro-inputs like fertilizer as their main limiting factors preventing them from maximizing business opportunities in the marketing of climbing beans.

Both women and men mentioned high cost of planting seed for highly marketable bean varieties like NABE 12C, small volume supply for bulk buyers, limited knowledge on bean Processing, limited market linkage and dealing in low market varieties as the main factors affecting their participation in marketing of climbing beans.



**Figure 2: opportunities in the market segment of climbing beans**

Several opportunities in the marketing of climbing beans were identified (Figure 2). About 69% women identified dealing in multiplication of foundation seed for supply to seed companies and research organizations as their best business opportunity. This was because, it does not require them to move out of their homes and the beans sold as seed fetches better price of UGX 3000-4000Ug.shs/Kg compared to UGX 2000-2500Ug.shs/Kg of beans sold as grain.

More women 48% preferred contractual farming with bulk buyers citing possibility of affixed buying price and support with agro-inputs like; planting seed, fertilizer and pesticides which are expensive. At marketing level, 53% men compared 47% women, experienced willingness to participate in retail trade because it is profitable with high domestic and export demand of beans.

Women in FGDs identified that, trading in dry beans requires less capital compared to agro-input business. However, women observed lack of startup capital, inability to lift heavy bags of beans and lack of ownership of transport means and skills to ride motorcycles as reasons for their low involvement in bulking and selling beans. Fewer women (14%) compared to men, experienced willingness to do business in agro-input (fertilizers, herbicides, pesticides, and storage bags) due to lack of professional expertise and lack of enough financial capital since agro-input business compared to trading in dry beans requires much more capital to start.

About 83% men identified buying motorcycles for transport-hire service as source of daily income and also reduce on their transport expenses that they incur during transportation of their own produce. More male (67%) climbing beans farmers compared to women were organized into saving and credit lending groups which provided small credit loans to group members. For example, Rubaya seed Bank farmer association gives seed loans (10kg – 13kg) to both group and non-group members which are paid back in two phases within a year. This provides an opportunity to farmers to access improved seed of marketable varieties.

Further, 61% women anticipated government support through women entrepreneurship fund, the youth livelihood fund, operation wealth creation /NAADS and from non-government organizations such as Biodiversity International, World Vision and N2Africa. These provide opportunities to get technical and financial support to enable farmers commercialize bean production through contractual farming, multiplication of foundation seed and to open up businesses dealing in supply of agro-inputs, bulking and selling of beans, buying of motorcycles for transportation of their produce to market and hiring as source of income. However women identified lack of knowledge in writing business proposals as limiting factor for accessing the anticipated support (FGD, Rubaya).

#### **4.3.6 Factors influencing women and men’s participation in marketing of climbing beans**

This study in part, sought to establish factors influencing women and men’s participation in the marketing of climbing beans (Table 13).

##### **3.4.6.1 Hypothesis**

*The following factors were hypothesized to influence the level of farmer participation in the marketing of climbing beans; gender, age, marital status, educational level, off farm employment, household headship, land size, access to market stalls, membership in bean innovation platforms, leadership in farmer groups, use of technology, involvement in decision making.*

The level of marketing participation was measured by participation index that included; 1. High level (consisting of collective and contractual marketing). 2. Moderate level (consisting of moving to markets, selling in personal stores and as retail store owners) and 3. Low level consisting of selling to exploitative middlemen (Table 13).

**Table 13: Market Participation levels (n=155)**

Market participation indices	%
High	22
Moderate	41
Low	37

Table 13 results revealed that majority (41%) of the respondents were involved in moderate participation, 37% were involved in low level participation and 22% indicated high level of market participation which means few farmers were selling their climbing beans collectively and on contractual basis.

#### 4.3.6.2 Gender variation in marketing participation levels of climbing beans

**Table 14 Market participation levels of women and men (155)**

Gender	Market participation level		
	High%	Moderate%	Low%
Women	16	28	56
Men	29	58	13

Table 14 reveals that more men (58%) compared to women (28%) indicated a moderate level of participation in marketing of climbing beans. The participation of both women and men in the high level participation index was poor with 16 % and 29% respectively. Table 14 revealed that majority women (56%) were involved in the low level participation index in the marketing of climbing beans compared to 13 % men (Table, 14).

#### 4.3.6.3 T-test difference of means of women and men in the market participation levels

The t-test was performed to ascertain whether there is a significant difference in the means of women and men in the market participation levels.

**Table 15 T-test difference of means of women and men in the market participation levels**

Gender	Market participation levels		
	Low	Moderate	High
Women	0.558(0.4995)	0.27907 (0.45117)	0.16279(0.37134)
Men	0.1304(0.33)	0.059858(0.49722)	0.28986(0.457019)
t-statistic (prob)	6.0748(0.000)***	-3.9394(0.0001)***	-1.9100(0058)*

\*, \*\*, \*\*\* Represents significance at 10%, 5% and 1% levels respectively

There was a significant difference in the means of women and men in high level of market participation with t-test of  $t(153) = -1.9100$ ,  $P < 0.10$ . Regarding the moderate level of participation with t-test of  $t(153) = -3.9394$ ,  $p < 0.0001$ . And with regard to low level market participation with t-test of  $t(153) = 6.0748$ ,  $p < 0.000$  as shown (Table 15).

**Table 16 descriptive statistics of the variables used in the ordered probit analysis**

Variables	Dummies	Obs	Mean	Std. Dev.	Min	Max
Market participation	<b>High</b>	155	0.219355	0.4151509	0	1
	<b>Moderate</b>	155	0.412903	0.4939517	0	1
	<b>Low</b>	155	0.367742	0.4837537	0	1
<b>Gender of the respondent</b>	Woman	155	0.554839	0.4985946	0	1
	Man	155	0.445161	0.4985946	0	1
<b>Education level</b>	Primary	155	0.600	0.491486	0	1
	Secondary	155	0.335484	0.4736898	0	1
	Tertiary	155	0.064516	0.2464664	0	1
<b>Marital Status</b>	Married	155	0.935484	0.2464664	0	1
	Single	155	0.03871	0.1935274	0	1
	Widow	155	0.006452	0.0803219	0	1
	Separated	155	0.019355	0.1382153	0	1
<b>Age of the respondent</b>	below18yrs	155	0.019355	0.1382153	0	1
	18- 35yrs	155	0.632258	0.4837537	0	1
	35-60yrs	155	0.329032	0.4713848	0	1
	Above 60years	155	0.019355	0.1382153	0	1
<b>Household head</b>	Head	155	0.6	0.491486	0	1
<b>Land size (acres)</b>	Less than one acres	155	0.258065	0.4389881	0	1
	1-3 acres	155	0.625807	0.4854826	0	1
	3-5 acres	155	0.109677	0.3135002	0	1
	above5acres	155	0.006452	0.0803219	0	1
<b>Access to Market stalls</b>	access to market	155	0.174194	0.3805053	0	1
<b>Bean Innovation membership</b>	Bean innovation	155	0.819355	0.385971	0	1
<b>Access to extension services</b>	Extensions services	155	0.916129	0.2780927	0	1
<b>Leadership participation</b>	Leadership	155	0.354839	0.4800154	0	1
<b>Autonomy to travel to market</b>	Autonomy to travel s	155	0.709677	0.4553826	0	1
<b>Use of Technology</b>	Affordable	155	0.109677	0.3135002	0	1
	Expensive	155	0.632258	0.4837537	0	1
	Counterfeit	155	0.258065	0.4389881	0	1
<b>Decision making</b>	Decision making	155	0.8193548	0.385971	0	1
<b>Volume (Kg) sold</b>		155	1189.387	9635.69	25	120000

Table 17 shows that market participation index were in three categories; High, Moderate and Low and three dummies were generated; High taking on 1 and 0 otherwise, Moderate taking on 1 and 0 otherwise and Low taking on 1 and otherwise.

Gender of the respondent was captured as male and female, however dummy variable for gender was generated by taking on the value of 1 if man and 0 otherwise and the mean value for gender was 0.445161.

Education of the household head was captured in three brackets; primary, secondary and tertiary. However three dummies were generated primary taking on 1 and 0 otherwise and the mean values for primary education was 0.600. Secondary taking on 1 and 0 otherwise and the mean value for secondary was 0.335. Tertiary taking 1 and 0 otherwise and the mean values for tertiary was 0.064516.

Marital status was captured four brackets; married, single, widow, and separated. However, four dummies were generated married taking on 1 and 0 otherwise, and the mean values for 0.935. Single taking on 1 and 0 otherwise n and means values for single was 0.03. Widow taking on 1 and 0 otherwise and the mean values for widow was 0.006. Separated taking on 1 and 0 otherwise and the mean values for separated was 0.019.

Age was captured in five categories; below 18 years, 18-35 years, 35-60 years and 60 years and above. Five dummies were generated, below 18 years old taking on 1 and 0 otherwise and the mean values for below 18 years was 0.019. A group 18-35 year's old taking on 1 and 0 otherwise and the mean values for 18-35 years old was 0.6322. A group 35-60 years old taking on 1 and 0 otherwise and the mean values for 35- 60 year old was 0.329. The 60 years old taking on 1 and 0 otherwise and the mean values for 60 years old was 0.01935.

Household head was captured two categories; being a head and not head two dummies were generated head taking on 1 and 0 otherwise and the mean values for head was 0.60.

Land size was captured in four categories, less than 1, 1-3 acres and 3.5 acres and above 5 acres. Four dummies were generated; less than 1 taking on 1 and 0 otherwise and means values 0.258. 1-3 acres taking on 1 and 0 otherwise and the mean values for 1-3 acre was 0.626.

Land size of 3-5 acres taking on 1 and 0 otherwise and the mean value for 3-5 acres was 0.109. Land size of above 5 acres taking on 1 and 0 otherwise and the mean value for above5 acres was 0.006.

Access to market stall was captured as yes and no; a dummy for yes taking on 1 and 0 otherwise and the mean values for access to market stall was 0.174. Membership in beans innovation platform taking on 1 and 0 otherwise and the mean values for Yes to membership in an innovation platform was 0.819.

Access to agriculture extension services yes taking on 1 and 0 otherwise and the mean values for Yes to access to extension services was 0.916.

Leadership participation in farmer groups yes taking on 1 and 0 otherwise and the mean value for yes to leadership participation in farmer groups was 0.355. Autonomy to travel to markets yes to autonomy to travel to market taking on 1 and 0 otherwise and mean values for autonomy to travel to markets was 0.706.

In the same table, use of technology was captured in three categories and three dummies were generated; affordability taking on 1 and 0 otherwise and the mean values for affordability was 0.109. Technology being expensive taking on 1 and 0 otherwise and the mean values for technology being expensive was 0.632. Technology being counterfeit taking on 1 and 0 otherwise and technology being counterfeit was 0.258.

Decision making was captured as yes and no and dummies were generated; yes to decision making taking on 1 and 0 otherwise and the mean values for yes to decision making was 0.819

Volume of beans in kilograms was captured as continuous variable and the mean values for volume of climbing beans sold in kilogram was 1189.3Kg. This means on the average a farmer sold 1189.4 kilograms of beans.

**Table 17: Ordered probit model results showing factors influencing farmer participation in marketing of climbing beans**

<b>Variables</b>	<b>Marginal Effects for Low market participation (Std Error)</b>	<b>Marginal Effects for Moderate market participation (Std Error)</b>	<b>Marginal Effects for High market participation (Std Error)</b>
<b>Men</b>			0.459(0.031)**
<b>Women</b>	0.460(0.001)***	-0.410 (0.385)	
<b>Primary</b>	0.651(0.221)	0.534(0.789)	-0.549(0.179)
<b>Secondary</b>	0.667(0.825)	0.519(0.561)	-0.527(0.506)
<b>Married</b>	0.623(0.318)	-0.95(0.007)***	1.064 (0.044)**
<b>18-35yrs old</b>	0.288(0.861)	-0.280(0.036)**	0.342(0.025)**
<b>Head of HH</b>	-0.483(0.272)	0.53(0.02)**	-0.542 (0.947)
<b>3-5 acres</b>	-0.463( 0.426)	-0.442(0.048)**	0.492(0.005)***
<b>Technology use : affordability</b>	0.536 (0.356)	0.448(0.905)	0.472(0.409)
<b>Access to market stalls</b>	-0.451(0.905)	-0.636(0.007)***	0.611(0.015)**
<b>Bean innovation</b>	-0.417(0.905)	-0.429(0.077)*	0.493(0.139)
<b>Extensions services</b>	-0.525(0.729)	0.574(0.365)	-0.715(0.909)
<b>Leadership to markets</b>	-0.431(0.028)**	-0.349(0.66)	0.371(0.021)**
<b>Autonomy to travel</b>	0.509(0.359)	0.582(0.547)	-0.617(0.045)**
<b>Decision Making</b>	0.522(0.04)**	-0.603(0.001)***	0.638 (0.201)
<b>volume of beans in Kg</b>	-0.000(0.182)	0.00(0.34)	0.000(0.849)
<b>Log pseudo Likelihood</b>	<b>-77.7428</b>		
<b>No. of Observation</b>	<b>155</b>		
<b>Pseudo R2</b>	<b>0.2823</b>		
<b>Probab(chi)</b>	<b>0.000</b>		

\*, \*\*, \*\*\* Represents significance at 10%, 5% and 1% levels respectively



### **Interpretation for High level market participation**

Table 17 results shows that being man positively and significant influenced participation in high market level that consists of collective and contractual marketing with probability ( $p=0.031$ ). This shows that more men compared to women were more likely to participate in the high marketing level. This according to results from FGDs was attributed to men producing and marketing highly demanded climbing bean varieties on large scale for bulky buyers, performing less reproductive work and being agents of whole-sale traders from Kampala and Rwanda.

Age significantly and positively influenced men's participation in high level marketing with the probability of ( $p=0.025$ ). This shows that farmers who were within the age group of 18-35 years were more involved in collective marketing and contractual farming. At this age of 18-35 years, most men who are married ( $p= 0.044$ ) acquire part of family land from their parents which can be used for commercial climbing bean production. While those bellow 18 years are regarded as young and the elderly are less energetic to participate in contractual farming of climbing beans that is labor intensive and mostly likely have given part of their land to the married sons remaining with less land for commercial bean production (KII, CDO Participant 3).

Land size owned by farmers positively and significantly influenced high level of market participation with probability of ( $p=0.005$ ). This shows that farmers who had 3-5 acres were more likely to produce large volumes of beans on contractual basis or bulk their produce for collective marketing. Key informants cited the rite of family headship, property inheritance, and land ownership as cultural entitlement for men. One of the key informants in Kashambya stated that; *“A woman cannot claim control over land unless passed to her by her parents or after the death of her husband or purchased”* It was further noted that, when a man dies, land ownership is transferred to the wife upon whose death land is divided among the sons each with a plot while the girls are clustered and given one plot which limits women access to land to produce surplus beans for selling (FGD, Kashambya.).

Table 17 further revealed that, farmers' access to market stalls positively and significantly influenced high market participation level with a probability of ( $p=0.015$ ). This shows that men compared to women who have access to market stalls are more likely to participate in high marketing levels and also be involved in leadership of marketing groups with a probability of

( $p=0.021$ ) which enables them to bulky their produce for contractual or collective marketing (Group 6, Participant1).

### **Interpretation for moderate market participation**

results from table 17 revealed that being married negatively and significantly constrained women's participation in the moderate level of ( $P=0.007$ ) which involves travelling to market places, selling in own stores and owning retail stores.

FGDs results attributed this to unpaid family welfare responsibilities such as; childcare, food provision, collecting firewood and fetching water which constrains most women to be involved in marketing or spending less time at their business premises. Further, conservative attitudes of some men and community members towards women owning businesses as reported by one of the women key informants who noted that; *“some men fear that when their wives engage in business, they can become financially independent and may start to despise them and be seduced by rich men”*. Such mistrust result into domestic violence and deters some women to join viable bean related businesses”.

Table 17 further revealed that, women in the age bracket of 18-35 years were negatively and significantly influenced not to participate in moderate level with probability ( $p=0.036$ ). This shows that women who are within the age group of 18-35 years who are mostly married hardly participated in climbing bean related businesses due to family welfare responsibilities.

Land ownership of 3-5 acres negatively and significantly led to less participation in moderate market level with a probability ( $p=0.048$ ). This shows that farmers mostly men who owned land 3-5 acres would less participate in the moderate level of marketing and would prefer high market level participation which involves collective marketing and contractual marketing. However, women in FGDs decried lack of land ownership as the most limiting factor as stated bellow;

*“Lack of access and ownership to land limits women's chances to get loans to invest intensive large scale commercial seed multiplication and inadequate capital limits their ability to start viable businesses like bulking and selling of dry beans”*. (KII, Rubaya)

Farmer's access to market stalls and membership in bean innovation platforms both negatively and significantly reduced participation in the moderate level with probability ( $p=0.007$ ). This

reflects the success registered by farmers organized under Rubaya seed bank farmers' association platform which loans good quality seed to its members and encourages them to market collectively in the High level market participation index. In the same table results show that farmer's involvement in decision making negatively and significantly reduced participation in moderate level market of marketing with the probability of ( $p=0.001$ ). This shows that the more the farmer was involved in decision making the less they participated in moderate marketing.

Lastly in the same table, farmers' autonomy to travel to market negatively and significantly influenced the level of market participation ( $p=0.045$ ). This shows that the more the farmer had autonomy to travel to market places, the less their participation in the selling their produce at home.

### **Interpretation for Low market participation**

Results in table 17 revealed that women's participation in low marketing level consisting of exploitative middle men was positive and significant at ( $p=0.001$ ) This shows that women were more likely to participate in the low levels of marketing . Further in the same table results show that farmer's involvement in leadership of markets ( $p=0.028$ ) was negative and significantly influenced market participation of majority farmers selling their produce in the low market level. This shows that the more the farmer was involved in leaderships of market groups, the less the participation in low level of marketing at 5% level of significance.

Increase of women in decision making at household level on where to sell and how much to sell increased low market level participation at ( $p=0.04$ ) this was attributed to women's low bargaining power due to less market information and prioritizing stocking beans for family food security and selling in small amounts to cater for agent welfare family needs such as; paying medical care, buying kerosene, salt, other food stuffs and scholastic materials for school going children. (KI, Rwamucucu). Women mentioned lack of autonomy to travel to markets, restrictive property inheritance rights over land, spending much time on unpaid reproductive roles, unequal household power relations in favor of men and limited access and control of marketing assets as their major limiting factors (FGD, Rwamucucu). Women's FGDs revealed that, men reserved the most fertile piece of family land for their own separate cash crops while the less fertile pieces of land are allocated to women to cultivate food crops mainly for family consumption.

**.Table 18 Control and access over bean marketing assets and services by women and men**

Control and access over assets	Description	Female (n=86) %	Male (n=69) %	Overall (155)	$\chi^2$ -value
Market stalls	Yes	31	30	31	0.017
	No	69	70	69	
Weighing scales	Yes	12	64	73	24.081***
	No	88	36	27	
Agro-input technologies	Yes	33	31	32	1.851
	No	67	69	68	
Market information gargets	Yes	52	95	74	44.726***
	No	48	5	26	
Tarpaulins for drying	Yes	92	95	95	15.469***
	No	8	5	5	
Improved storage bags & silos	Yes	55	43	50	6.422*
	No	45	57	50	
Participation in decision making processes	Yes	67	95	82	27.418 ***
	No	33	5	12	
Income from the sale of beans	Yes	38	94	85	27.340 ***
	No	62	6	15	
Transport means	Motorcycle	69	54	62	29.828 ***
	On head	22	7	15	
	Bicycle	6	39	21	

\*, \*\*, \*\*\* Represents significance at 10%, 5% and 1% levels respectively

Women mentioned lack of access and control of transport means, market information gargets, weighing scales, drying tarpaulins, improved storage bags, limited access to extension services and participation in decision making processes and control of family incomes as their main limiting factors for participation in the marketing of climbing beans.

Marketing methods that require bulk supply, procurement paperwork and payment in cheques limits women's participation in the marketing of climbing beans because; most women do not know how to read and write and majority have no bank accounts. In most cases, women seeks help from men and majority sell their produce at a cheaper cost to the men who wins contractual tenders and thus make profits that would otherwise be earned by female producers.

Men cited high input cost of marketable planting seed varieties, fertilizers, pesticides and staking materials and the need to invest in high capital ventures like buying land, construction of family house, paying school fees and investing in other businesses as reasons to why they consolidate their control on family income.

**Figure 3: Quality of relationship of female and male farmers with other actors in the market segment of beans**

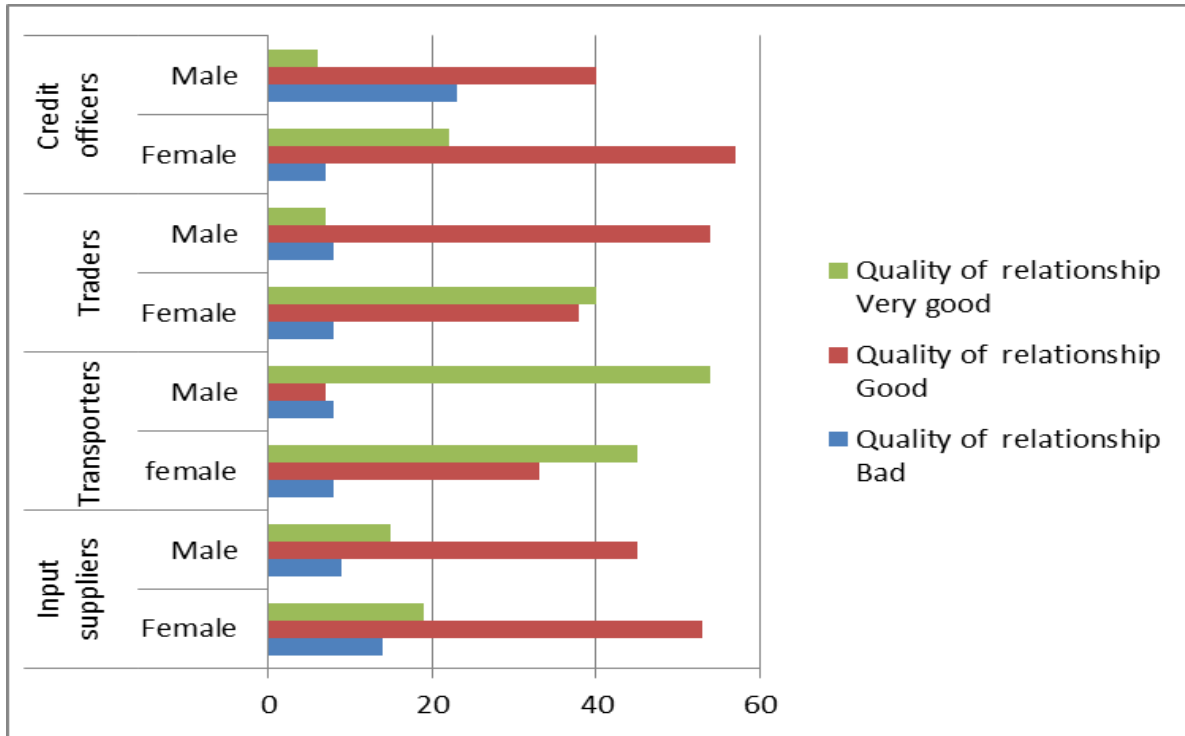


Figure 3 shows that female farmers have good relationship with credit officers and input suppliers because they were considered more trustworthy and pays in time compared to their male counterparts. However, women lacked collateral security to enable them secure loans to invest in business opportunities in the market segment of climbing beans.

Table 19 shows suggestions proposed by women and men on what should be done to improve their participation in the marketing of climbing beans.

**Table 19 Suggestions for improving women and men’s participation in marketing of climbing beans (n=155)**

Suggestion for improving market participation	Women %	Men %
Training on post-harvest seed management & value addition	38	62
Market linkage to seed companies & bulk buyers	77	23
Gender training on equal sharing of roles & use of family resources	75	25
Provision of low interest loans to farmers & business dealers	30	70
Provision of adult literacy & numeracy skills required in business	89	11
Formation and transformation of farmer groups into marketing groups/ SACCOs	33	67
Training on developing of business plans for government	59	41
Provision of marketable climbing bean varieties to farmers	60	40

Table 19 shows that 77% women compared 23% men suggested market linkage to seed companies and bulk buyers for supply of climbing bean seed on contractual basis in order to benefit from the price of beans sold as seed and avoid loses as a result of price fluctuations of beans sold as grains. Related to this, 62 % males compared to 38% females suggested training on post-harvest seed management and value addition on beans.

Table 19 results indicate that 75% of the women suggested training of both women and men on the need for equal sharing of roles and use of family resources. This is expected to encourage men to help their wives in doing family reproductive roles and create time for women to participate in income generating activities in value chain of climbing beans.

Farmers 33% women and 67% men mentioned the need of organizing themselves into marketing groups with saving and credit lending component to enable them to bulk their bean produce for collective marketing and gain better price and access financial capital that is internally generated through farmer savings; and attract support from government programs in form of agro-inputs, knowledge, loans and grants for investment in business opportunities available in the value chain of climbing beans like; multiplication of foundation seed for supply to seed companies, trading in agro-inputs such as; fertilizers, pesticides, fungicides and provision of transport hire services and staking materials.

Climbing bean farmers 59% women and 41% men suggested training on developing business plans and writing business proposals that would enable women and the youth to access support from government programs like women entrepreneurship fund, youth livelihood fund and operation wealth creation/NAADS.

Women reported that, whenever they approach local government officials for support, they are asked to present their business plans and written proposals on how they intend to use the support requested which they fail to do due to high illiteracy levels among women. It was reported that; most government support ends up in the hands of the educated, relatives of the politicians and the rich (FGD, Rwamucucu).

Table 19 further shows that 89% female farmers compared to 11% male farmers of climbing beans suggested provision of adult literacy numeracy skills through functional adult literacy classes in order to acquire knowledge and skills needed to operate agro-input supply businesses. This indicates that illiteracy affects more women than men in establishing business.

More farmers of climbing bean 60% women compared to 40% men suggested provision of marketable climbing bean technologies especially fertilizers and improved planting seed of; NABE 12C, NABE 26, NAROBAN 5C and flat white bean varieties in order to benefit from the available domestic and export market demand ( FGD, Kashambya).

## **CHAPTER FIVE: DISCUSSION**

### **5.1 Introduction**

This section discusses the key findings of the study in relation to the literature reviewed and the specific objectives of the study which were to examine the extent to which women and men participate in the marketing of climbing beans, identify roles, constraints and opportunities of women and men in the marketing segment of beans; and establish factors influencing women and men's participation in marketing and control over incomes and benefits from climbing beans.

### **5.2 Women and men's participation in the marketing of climbing beans**

More men were generally involved in commercial production of highly priced climbing bean varieties because they could afford to buy improved seed that gives high yields with considerable use of agro-chemicals and staking materials. On average men sold 71% of their total produce in order to meet their family and social responsibilities of paying school fees, construction of houses and buying land while women were found mainly involved in production of cheaply priced but early maturing climbing bean varieties that were resistant to field and storage pests in order to meet their family responsibility of providing food. Women on average sold 54% of their total harvest in small volumes to solve urgent family welfare needs like buying salt, soap, paraffin, clothes, scholastic materials and paying medical care bills.

This is in agreement with (Farnworth, Akamandisa & Hichaambwa, 2011) who observed that in Zambia, women and men have distinct varietal crop preferences due to their different roles and responsibilities within the households. However in addition to varietal preference based on roles and responsibilities, this study found out that women were significantly constrained by lack of financial capital to purchase improved seed of marketable varieties like NABE 12C. Women noted that, the seed of marketable bean varieties are expensive and requires the use of artificial fertilizers and pesticides which most women could not afford while most of the cheaply priced bean varieties are tolerant to field and storage pests, drought, heavy rains and can give good yields with minimal staking.



### **5.3 Methods women and men use to market their climbing beans**

Most men sold their beans by traveling to markets for better prices higher than that offered by mobile traders by a difference of UGX 200-300Ug.shs/Kg while majority women sold their produce to mobile traders at farm-gate prices in order to get quick cash to solve urgent family welfare needs. This is in agreement with (Kilimo Trust, 2012) which observed that bean trade in Uganda is still highly informal with about 93% of wholesalers having no contracts with their suppliers.

More men than women were employed in the market segment of climbing beans as retail store owners, mobile traders, transporters, and agro-input traders which offers men more income generating sources. This is in agreement with (UBOS, 2012) which noted that in Uganda, men dominated the value chain of most crops as traders while women were subsistence producers. However, this study also found out that men are the majority producers of the highly marketable climbing bean varieties like NABE 12C and both women and men lacked knowledge about bean processing into other consumable products.

### **5.4 Roles women and men perform in the marketing of climbing beans**

Differences in gender roles at household level indicated that more women specialize in harvesting, winnowing, sorting and drying of beans which are socially considered as women's roles while men consolidate control on family produces towards marketing by storing, transporting the produce to market, negotiating price, receiving payment and saving the incomes in the banks and farmer cooperatives where in most cases, accounts are in the names of men because they are considered as household heads and therefore family financial controllers. This is in agreement with (Meyers & Jones 2012) who observed that, in most communities and households, men and women perform different roles; have different responsibilities and unequal statuses which result into women and men have different experiences, knowledge, and needs and therefore development initiatives affect male and female beneficiaries in vastly different ways.

Women who provided casual labor for bean planting, weeding, harvesting and winnowing were paid UGX 5000-6000Ug.shs/ day less than UGX 7000-10,000Ug.shs paid to men who provided casual labor in less drudgery roles such as spraying, threshing, transportation and staking of beans. The amount paid to both women and men was far less than the Uganda national average wage pay of UGX 18,000Ug.shs for women and UGX 36,000Ug.shs for men (UBOS, 2012).

#### **5.4 Challenges and opportunities for women and men in the climbing bean markets**

Whereas 70 % women identified seed multiplication for supply to seed companies as their highly ranked business opportunity, they were constrained by lack of land ownership and control. This study established that 58% of the female farmers who are market oriented, hired land for commercial production of beans because most men among the Bakiga culture reserve the most fertile pieces of land commonly referred to as “*Engaragazi*” for their own separate gardens referred to as “*Omwehereko*” for income generation and allocate the less fertile pieces of land to women to grow food crops mainly for home consumption. This is in agreement with (UBOS, 2012) which observed that control over land is synonymous with wealth, status and power in many areas of Uganda and lack of ownership and decision making over land by women limits their level of participation in commercial production.

Women’s low participation in agro-input trading, bulking and selling of beans was attributed to lack of financial capital, lack of collateral security to access credit from financial institutions, restrictive cultural norms and practices that limits women to travel to markets and lack of skills to write business proposals as a prerequisite to access financial support from government programs such as; women entrepreneurship capital fund, youth livelihood fund and operation wealth creation/NAADS. This is in agreement with findings of; Rubin & Manfre (2009) who attributed gender disparities on low literacy and numeracy skills among women in developing countries which prevent them from developing effective negotiation skills with other value chain actors and using modern communication technologies to support their decision-making.

On apposite note, farmer organization in form of village saving and credit lending cooperatives the case of Rubaya seed bank farmers associations; enabled women and men to access improved planting seed of marketable climbing beans varieties and agricultural trainings from government and NGOs like; biodiversity international and sometimes enabled farmers to collectively bulk their produce which they sold at a better price. This is in agreement with (Farnworth, 2008) who noted that redesigning rural producer organizations to ensure that they are inclusive of women who are market-orientated with variety of value-adding strategies, ranging from enabling women to become crop specialists to assisting them with entrepreneurial skills and literacy trainings helps in linking organized farmers to input and output markets of agricultural produce in addition to physical infrastructure such as processing and storage facilities.

### **5.5 Factors influencing women and men's participation in the marketing and control of incomes from the sale of climbing beans**

This study also revealed that, women had limited control over incomes and benefits from the bean sales because; women sold their produce in small volumes, used exploitative marketing methods like advance payment before harvesting to solve urgent family needs coupled with lack of access to extension service in regard to market linkage and being married which socially means more focus on family reproductive roles and dedicating finance tasks to the husband. This is in agreement with (Kasente *et al.*,2000) who identified that, Lack of control over the benefits from market participation, gender discrimination in access to credit and training against women reinforces a cycle whereby women are unable to invest their time and money into improving production and productivity, leading to poor product quality and quantity.

Married women compared to the singles, had less control over family incomes. This is because unmarried women had autonomy to travel to markets, negotiate prices for their produce, saving the incomes in banks and farmer cooperatives in which accounts are in their own names which guarantee their access and control over incomes compared to the married women who regard such roles to be for their husbands as household heads; this study also found out that, men made decision on how to use incomes from both their own produce and that of female farmers; joint decision making on income use was evident in households where 77% female farmers were the producers of climbing beans. This indicates that men's possession of others sources of income generation other than bean production, increased females use of incomes from the sale of beans. This affirms the findings of (Ellis, Claire & Black den 2006), who noted that, in every chain, the likelihood of 'male takeover' is high once a certain level of profitability is reached and suggested that to ensure that women develop and maintain a presence across the chain require the development and application of instruments designed to deepen women's participation in producer organizations which represent women's interests in the market.

## CHAPTER SIX: CONCLUSION AND RECOMMENDATIONS

### 6.1 Summary of key findings

It was established that more men than women were involved commercial production of highly marketable climbing bean varieties that gives high yields with considerable use of artificial fertilizers, pesticides, fungicides and staking materials. On average, men sold 71% of their produce by traveling to markets for better prices. Men sold their beans in bulk to get more incomes mainly for paying school fees, construction of houses, buying land while women were found involved in production low priced climbing bean varieties that performed well with minimal use of artificial fertilizers, staking materials and resistant to field and storage pests mainly for family food security. Women on average sold 54% of their produce in small volumes to mobile traders in order to solve their urgent family welfare needs such as buying salt, soap, paraffin, clothes, scholastic materials and paying medical care bills and school fees.

Differences in gender roles at household level indicated that women specialized in harvesting, winnowing, sorting and drying while men consolidate their control on family produce towards marketing by storing and transporting the produce to the market, receiving the payment and saving the money in banks and village saving and credit lending cooperative where in most cases the accounts are in the names of men as the household heads. The same trend in gender division of labor was observed in offering casual labor where women specialized in bean planting, weeding, sorting, harvesting and were paid UGX 5000-6000Ug.Shs/day while men specialized in staking beans, spraying, threshing and transportation and were paid UGX 7000-10,000Ug.shs/day. Even for the same type of work like primary and secondary tillage men were paid higher than women with a difference of UGX 1000-2000Ug.Shs.

Business opportunities such as; trading in agro-inputs, provision of hired transport service, bulking and selling of beans with exception of seed multiplication were all dominated by men. Women's low participation in bean related businesses and control of income was mainly attributed to; time consuming reproductive roles, restrictive cultural norms, low literacy and numeracy skills, lack of financial capital and ownership of transport means.

Gender disparities in market participation and control of income from climbing beans sales to the disadvantage of women were attributed to a number of factors which can be broadly categorized into the following:

a) **Inadequate land**

Businesses like multiplication of foundation seed that require large acreages of land were constrained by limited arable land in the district. At household level, men determined the allocation of land for different crops or uses. Respondents said that men reserved fertile pieces of land commonly referred to as “*Engaragazi*” for their own separate gardens for income generation referred to as “*Omwehereko*” while the less fertile pieces of land are allocated to women to cultivate food crops mainly for family consumption. Lack of ownership and decision making over land by women limited their level of participation in commercial production of climbing beans.

b) **Limited knowledge and skills**

It was noted that most women have low levels of education, limited access to market information and possess inadequate knowledge and skills in use of agro-chemicals, record keeping, basic accounting and business planning necessary for establishing and operating agro-input businesses. As a result, most women tended to offer casual labor to other farmers. Women specialized in seed planting; weeding, harvesting and winnowing to supplement their little incomes from the sale of beans. Both women and men were reported to be incapacitated by lack of skills needed for value addition on climbing beans and therefore sold their beans as either fresh or as dry seed.

c) **Inadequate capital**

Women had lesser capital than their men. Key informants noted that inadequate capital limits women’s ability to start viable businesses like dealing in agro-inputs bulking and selling of dry beans and hiring land for seed multiplication. Due to lack of financial capital, women concentrate on production of cheaply priced climbing bean varieties like *Kabweseri* and *Kyenyera-mbure* which perform well with minimum use of fertilizers, pesticides while men dominate production of highly marketable climbing bean varieties like NABE 12C and NABE 26C whose seed is expensive and performs well with considerable use of agro-inputs like artificial fertilizers, pesticides, fungicides and requires use of more staking materials.

**d) Cultural norms, beliefs and practices**

Findings from this study revealed that, cultural norms determined the division of roles in the households with reproductive roles assigned to women while control over the means of production including income largely lies in the hands of men. Women, youth and children have limited control over the incomes from the use of family land. In situations where the enterprise is managed by the women; it was reported that they still pass on the income to their husbands to avoid disagreements. FGD Participants cited the rite of family headship, inheritance, and land ownership as cultural entitlement for men. *“Women cannot claim control over land unless passed to them by their parents, after the death of their husband or purchased”*. It was noted that when a man dies, land ownership is transferred to the wife upon whose death land is divided among the sons each with a plot while the girls are clustered and given one plot.

**e) Gendered roles and negative attitudes**

Unpaid family roles like; child care, food provision, collecting firewood and fetching water are performed by women. This makes women spend lesser time at their business premises compared to men who spend much more time attending to their businesses thus making more profits than women. Respondents said the situation is made worse by conservative attitudes of some men and community members towards women owning businesses. It was noted that some men fear that when their wives engage in business, they can become financially independent and may start to despise them and be seduced by their male business partners. Such mistrust was reported to result into domestic violence and deterring some women to join viable businesses.

## 6.2 Conclusions

Basing on the major findings of this study, the conclusions are made according to the study objectives as follows:

1. There are more men than women engaged in the market segment of climbing beans in Kabale District. The men works as mobile bean traders, owners of retail bean stores and suppliers of highly marketable bean varieties. Most men sell their beans in large volumes to organized markets at a higher price compared to majority women who sell their beans cheaply in small volumes to exploitive middle men and sometimes women's harvest is only enough for home consumption and paying off money advanced to them before harvest.
2. There is gendered division of work in the marketing segment of the Climbing Bean Value Chain in Kabale District with harvesting, winnowing, sorting and drying roles mainly performed by women while men dominate storage, transportation, bargaining of price, receiving payment, saving and controlling of family incomes from the sale of beans. However, women control over incomes is higher in female headed households and homes where the husband and wife own separate gardens.
3. The more lucrative business opportunities in the climbing bean value chain such as; supply of agro-inputs, bulking and selling of beans were prioritized by men while most women preferred contractual multiplication of foundation seed as their most suitable source of income in the market segment of climbing beans since it does not require them to move out of their homes and abandon their family reproductive roles. Most women mentioned daily reproductive tasks, restrictive cultural norms, low literacy and numeracy skills, lack of financial capital and ownership of transport means as factors constraining them to benefit from the available opportunities in the market segment of climbing beans.
4. Participation in marketing of climbing beans by women and men is positively influenced by access to financial capital, agricultural extension services, production of marketable bean varieties that are suitable for value addition, selling in bulk, membership in marketing groups, ownership of production and marketing assets such as land, market stalls, and means of transport such as motorcycles and bicycles.

### **6.3 Recommendations**

The following recommendations were suggested basing on the above conclusion of the findings of the study:

#### **A) For practitioners in extension**

There is need to sensitize both women and men to overcome gender stereotypes on marketing roles and organize farmers into marketing groups to enable women access better markets, business skills and financial capital to invest in both input and output markets of climbing beans. Invest in programs that improve women's access to marketing resources and agricultural knowledge such as, inclusive extension services and access to improved bean technologies.

#### **B) For policy makers**

There is need to make policies and bylaws that enable women and men access technological inputs such as, fertilizers, pesticides, and climbing beans varieties that are suitable for value addition like NABE 12C through government programs such as NAADS-Operation Wealth Creation and Women Entrepreneurship Program.

#### **C) For further research**

Besides the development of marketable bean varieties that are suitable for value addition, there is need for such varieties to also possess attributes that women prioritizes before adoption such as early maturity, being tolerant to pests and diseases in order to achieve both family food security and income generation.

There is need to increase the size of NARO BEAN 5C in order to encourage its adoption by men who complain of its small size and light weight.



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## APPENDICES

### Appendix 1: The Household questionnaire

IDENTIFYING FACTORS INFLUENCING WOMEN AND MEN PARTICIPATION IN THE MARKETING OF CLIMBING BEANS  
QUESTIONNAIRE FOR CLIMBING BEAN FARMERS;

#### 1.1 INTRODUCTION

My name is ..... a student researcher at Makerere University working with IITA-N2Africa and partner organizations to study gender based factors influencing women and men participation in the marketing of climbing beans. You have been selected to participate in this study because I feel you have the information that can help in identifying factors that influence women and men participation in the marketing of climbing beans. Your participation in this study is voluntary. I will ask you a number of questions. All your answer will be strictly kept confidential and will not be used for any other purpose apart from informing this study.

**Enumerator's name** ..... **Contact**.....

**2. District:** ..... **3. Sub county:** .....

**4. Parish/ward**..... **5. Village/cell:** .....

**6. Respondent's NO.** ..... **Contact**.....

Date when interview form filled (DD/MM/YYYY): \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

#### SECTION A: EXTENT OF MARKET PARTICIPATION

1. Which of the following categories of people describes your household in regard to income generation from bean value chain?	1. Farmer only	Tick
	2. Transporter	
	3. Mobile trader	
	4. Retail Store owner	
	5. casual labourer	
	Others (specify).....	
2. How much beans did you market/ sell during the last season out of the total harvest?	1. 100%	
	2. 90%	
	3. 80%	
	4. 70%	
	5. 60%	

	6. 50%	
	Others .....	
3. Which method did/do you use to market your beans?	1. Collective	
	2.Contractual	
	3.Mobile trader	
	4.Move to market places	
	5.Retail Stores	
	Others specify .....	
4. Which type/variety of the climbing beans do you market?	1.	
	2.	
	3.	
	4.	
	5.	
5. Which person in the household travels to the market to sell beans?	1. Women/wife	
	2. Man/ husband	
	Others specify .....	
6. Do you sell fresh pods or dry beans?	1. dry beans	
	2. Fresh bean pods	
	3.Both	
7. Which person in your household access market information like price or buyer?	1.Woman/wife	
	2. Man/husband	
	Others .....	
8. Who decides how much of the beans to sell?	1.Woman /wife	
	2. Man /husband	
	Others specify .....	
9. Who in the household actually negotiates the selling price for the beans?	1.Woman /wife	
	2. Man /husband	
	Others specify .....	
10. Who in the household is a member of a marketing group like a Coop/ SACCO/VSLA	1.Man	
	2.Woman	
	3.Both	
	4.None	
	Others specify .....	
11. To what extent do you consult each other as husband and wife during marketing of beans?	1.Always	
	2.Sometimes	
	3.Never	
12. Who decides how the income from beans is shared/ utilized in the household?	1.women/wife	
	2.man/husband	
	Others specify .....	
13. What is your reason for selling beans?	1.Pay debts/advanced money	
	2.Buy permanent	

	assets & invest in other businesses	
	3. Pay medical bills	
	4. Buy scholastic materials	
	5. Buy other foods & house hold utensils	

14. Which marketing method best describes the way you sell beans? Multiple answers possible

Code	Method of marketing beans (tick the appropriate)	Tick
1	Sells dry beans in collective farmers' cooperative	
2	Sells beans in my personal store at a better price when demand is high	
3	Sells to mobile traders who moves house to house	
4	Sells to seed companies & organisations on contract	
5	Travel to market place to sell bean on market days	
6	Add value and sell processed product	
7	Sometimes harvest only pays money borrowed from local buyers	
<b>8. Give reasons for selected method of marketing of beans? .....</b>		

15. Information on input cost, quantity harvested and total revenue

Input item	Quantity	unit cost	Total cost	Quantity seed harvested	Selling price	Total revenue
1. Planting seed( Kg)	...		...			
2. Fertilizer (kg)						
3. Staking materials						
4. Hired labour						
5. Inoculants						
6. Pesticide						
7. Herbicide						
Others specify ....						
<b>Total</b>			...			...
8. What Limits you from making profits?			Tick	Rank from 1-5 five being the highest		

1.Inability to access good market		
2.Cheap priced varieties		
3.Home consumption		
4.High input cost		
5.Overspending on family immediate Needs		
6.Low productivity		
Others specify.....		

16. How much share of household income comes from the sale of climbing beans?

Code	Source of income	Yes	No
1	Most of the income comes from t beans , a small part from other sources		
2	About half of the income comes from selling beans, the other from other crops		
3	Most of the income comes from off-farm sources, a small part from our farm		
4	All the income comes from off-farm sources		
5	Most incomes comes from formal employment and agricultural marketing		

17. Who in the household is responsible for marketing the beans? Man  Wife  Jointly   
**Probe why.....**

18. How long has the house hold been engaged in climbing bean marketing? .....

19. How would you rank income from beans in relation to other marketable produce?

Enterprise	Rank 1- 5 1=lowest5 = highest	Reason for given rank
1.climbing beans		
2. Irish potatoes		
3.sorghum		
4.tobacco		
5. Others specify .....		

20. Can a woman /wife in this household do any of the following without seeking permission from the husband? Use codes

Never =1, occasionally =2, generally =3

1.Start a trading business	
2.Visit a distant market to sell beans or purchase input	
3.Attend training meeting	
4.Spend family income on family needs	
5.Spend personal income on family needs	



6.Set money aside for personal use	
7.Get loan from financial institution	

21. To what degree do a woman and man have control over family incomes in this household?  
Use codes bellow Very high degree = 1 fairly high degree=2 Small degree= 3 Not at all = 4

Woman	
Man	

## SECTION B: ROLES OF WOMEN & MEN IN THE MARKET SEGMENT BEANS

1. Who in the household does the following market roles in the value chain of climbing beans?

Code	Marketing role	Women only	Men Only	Both	Assets Needed	Comment about reason	
		Tick	Tick			Women	Men
1	Harvesting						
2	Drying						
3	Threshing						
3	Winnowing						
4	Storing /bulking						
5	Transporting						
6	Processing						
7	Grading						
8	Bargaining						
9	Packaging						
10	Selling						
11	Marketing management						
12	Negotiating price						
13	Saving						
14	Planning & Spending						

## 2. Marketing Analysis for Climbing Beans in the household

		Male headed	Female headed
1	Role of climbing beans HH economy	1. % consumed at home ....	% consumed .....
		2. % sold .....	% sold ....
		3. Reason.....	Reason .....
2	Market Outlets used	1. Cooperative.....	1.cooperative
		2. store owner	2. store owner
		3.mobile trader	3.Mobile trader
		4.consumer	4. consumer
3	Visits to market outlet per month	1. Once	1. Once
		2. 2-5	2. 2-5
		3. 5+	3. 5+

4	Average volume sold on each visit	1. Kg per visit.....	In kg per visit.....
5	Average volume sold on each season	1. kg per season	1. Kg per season .....
	Estimate of total amount sold annually	1. Less than 250,000=	1. less than 250,000=
		2. 250,000- 500,000=	2. 250,000-500,000=
		3. 510,000- 1,000,000=	3. 510,000-1,000,000=
		4. More than 1,000,0000=	4. more than1,000,000
	Mode of Transport	1.car	1.Car
		2.Motorbike	2.Motorbike
		3.physical carrying	3.Physical carrying
	Influences on volume sold & frequency of sales	1.Solving pressing needs	1.Solving pressing needs
		2.Paying debts	2.Paying debts
		3.Buying assets	3.Buying assets
		4.Reserving for food	4.Reserving for food
		5.Investing money in business	5.Investing money in business
		6. amount produced	6.Amount produced
	Control of family income received from marketing	1.Full control	1.Full control
		2.No control	2.No control
		3.Control of less than 500,000=	3.Control of less than 500,000=
		4.Control of more than 500,00=	4.Control of more than 500,000=
		Others specify ....	Others specify ....
	Use of family income received from marketing	Autonomy to use	Autonomy to
		Use with consent from wife	Use with consent from husband
		No use	No use
		Others .....	Other....

1. Whom do you interact with as input suppliers and traders of beans? Tick **M** for more men & **F** for women

Actor	Gender		Distance (KM)	Rank of quality of relationship with actor on scale of 1-5 1= very bad, 5= excellent	Reason for the level of ranking
	M	F			
1.Input suppliers			...		
2. traders			...		
3. Transporter					
4.Credit officers					
5.processors					

7. In reference to table above, why do you think there are more women or men in the input supply businesses of beans?.....

8. In reference to table above why do you think there are more women or men in the bean trading businesses? .....

9. Who has control over the following resources in your household? Tick appropriate answer

Resources owned	Male	Female	Resources owned	Male	Female
1. Market stalls			10. Television		
2. Saving bank account			11. Access to agrochemicals		
3. Access to SACCO			Others specify .....		
4. Motorbike					
5. Car					
6. gunny bags					
7. Producer Stores					
8. Bicycle					
9. Radio					
9. Cell phone					

10. Do you have your own cultivable land apart from household land? 1. Yes  No

11. Do you do different tasks in your own plot than i in your family plot? 1. Yes  2.

12. What kind of additional/different activities do you usually do on your own plot?

1 .....2.....3 .....4 .....

13. How did you acquire the piece of land you cultivate your own beans? Use codes bellow

1= Inherited 2= Purchased 3= Allocated by village government 4=Borrowed 5= Rent

14. On average what amount of cash money you can make decision over its use without consulting your husband/ wife first? .....

15. On average what amount of cash money you cannot make decision over its use without consulting your husband/wife first? .....

16. Would you say your access to markets for sale of beans has increased, remained more or less the same or decreased during the past 3 years?

1. Increased  2. Remained the same (No change)

3. Decreased  4. Don't know

17. Would you say bean prices for your products have increased, remained more or less the same or decreased during the past 3 years?

1. Increased

2. Remained the same (No change)

### SECTION C: CONSTRAINTS AND OPPORTUNITIES FOR WOMEN AND MEN:

SCOR Analysis for Climbing beans Marketing – Use scale of 1-10

1. please indicate how successful you have been in marketing climbing beans in the last five years	Increase in marketed volumes	Rank
	Increased number of buyers	
	Marketing experience	
	Marketing in groups/	

	contract marketing	
	Access to better marketable bean Varieties	
	Other (specify)	
2. What challenges do you face in marketing Climbing beans?	Middlemen	
	Price fluctuations	
	Small volumes for big buyers	
	Lack of collective marketing	
	Customer preferences	
	Other (specify).....	
3. State some opportunities for income you anticipate in marketing climbing beans	Collective marketing/ storage	
	Contract farming with potential buyers	
	Value addition such as canning	
	Improved branding/ packaging	
	Export markets	
	Other (specify).....	
4. What risks you have you experienced in marketing climbing beans?	Crop failure due to drought	
	Pests and vermin	
	Low productivity/ poor soils	
	Domestic violence	
	Gendered norms over control of resources	
	Other (specify).....	
5. Please give me any suggestion of how the marketing of climbing beans could be improved in your area	a.	
	b.	
	c.	
	d.	
6. How can we improve equal participation of men and women in marketing the beans	a.	
	b.	
	c.	
	d.	
	e.	
Road network	1.Good	
	2.Bad	
	3.Improving	
	4.Worsening	
Technology use	1.Affordable	
	2.Expensive	
	Others specify	

**SECTION D: FACTORS INFLUENCING MARKET PARTICIPATION AND CONTROL OVER INCOMES FROM CLIMBING BEANS**

S/N	Land availability	Tick appropriate answer	
1	Does your household own land?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
2	Is your household land one piece or fragmented?	Consolidated <input type="checkbox"/>	Fragmented <input type="checkbox"/>
3	Household land size privately owned in acres	1acre <input type="checkbox"/> 1-3 Acres <input type="checkbox"/> 3-5 Acres <input type="checkbox"/> 5+ Acres <input type="checkbox"/>	
4	Other forms of land accessed	Communal <input type="checkbox"/>	Hiring <input type="checkbox"/>
5	Total land size owned and accessed	0-1Acre <input type="checkbox"/> 1-3Acres <input type="checkbox"/> 3-5 Acres <input type="checkbox"/> 5+ Acres <input type="checkbox"/>	

6. What was the **land size in acres under climbing bean** production in the previous season? ....
7. Do husband and wife have different crop gardens? Yes  No
8. Who in the household access timely market information? Women  an
9. At what degree do the following factors influence your level of participation in the marketing of climbing beans? Use ranking from 1-10

S/N	Factors hindering participation in the marketing of beans	Rank	Comment
1.	Lack of access to financial capital		
2.	Lack of access to agriculture extension		
3.	Lack of access to transport means		
4.	Lack of access to market information		
5.	Lack of access to improved technology		
6.	Low climbing bean productivity		
7.	Level of education		
8.	Government & NGOs support		
9.	Limited time due to domestic work		
10.	Membership in in farmer cooperatives/ SACCO farmer groups		
11.	Long distance to market		
12.	Inability to make market decision at family level		
13	Negative cultural attitudes		
14	Control over family assets		

10. Explain how the following factors may or may not influence your control over bean markets, incomes and benefits

S/N	Gendered factor	Nature of Influence	Gender implication	Suggestion for intervention
1	Community norms, Cultural beliefs			
2	Tools&Technology usage			

3	Participation informer trainings & access to extensional workers			
4	Community transport and communication network			
5	Political Structure& participation in community decision making processes			
6	Membership in farmer cooperatives/ SACCOS			
7	Economic status / source of income (livelihood)			
8	Government laws & policies			
9	Support from government and NGOS			
10	Access to financial capital			
<b>Intra household factors</b>		<b>Type of influence</b>	<b>implication /impact</b>	<b>intervention</b>
11	Gender			
12	Access and control of family assets			
13	Time spent on daily domestic Responsibilities / reproductive unpaid work e.g. cooking			
14	Level of formal education			
15	Attitudes & perceptions			
16	Involvement in family decision making processes			

11. In case of membership, which of the following do you do together as a group? Tick

1	Collective Cultivation	
2	Collective Marketing	
3	Saving and credit lending	
4	Receiving inputs from government and NGO	
6	Resource use and management	
7	Burial and festival contributions	
8	Social service lobbying and advocacy	

12. Do you have control and access to the following family resources and benefits?

S/N	Resource and benefits	Yes	No	Probe for reasons for answer
1	Market stall			
2	Cash/family savings			
3	Market information targets like radio			

4	Credit/loan from Sacco/bank			
5	Cooperative/SACCO meetings			
6	Land			
7	Transport means e.g. motor bike			
8	Family labour allocation			
<b>9</b>	<b>Benefits</b>			
10	Cash sales			
11	Membership in bean innovation platforms			
12	Access to extensional workers			
12	Participation in collective marketing			
13	Participation in leadership of Markets			
14	Decisions making in farmer meetings			
15	Attending bean agronomy & market trainings			
16	Autonomy to travel to markets			

13. Who controls household income from the sale of family beans? .....

14. Why? Give reason for the above answer.....

15. Do women and men benefit equally from the incomes from the sale climbing beans?  
.....

16. What type of trainings do you attend? .....

**17. Factors influencing control of incomes and benefits from beans**

Code	Influencing factor	Yes	No
1	Are you a member of any <b>farmer group or SACCO</b> ?		
2	Have you ever got support from government related to climbing beans?		
3	Do you get agricultural <b>support from the NGOs</b> ?		
4	Do you have <b>access to credit</b> (Bank/SACCOs& family savings)?		
5	Do you have access to transport <b>means</b> in your village? Specify.....		
6	Does your home to market <b>distance</b> enable market participation?		
7	Do cultural <b>norms inhibit</b> you to participate in marketing of beans?		
8	Do <b>government policies and laws</b> enable you to participate in the Marketing?		
9	Do you have access to <b>technical agriculture extension service</b> providers?		
10	Do you attend community <b>farmer trainings in agriculture</b> ?		
11	Does <b>time spent on family domestic work</b> limit you from market participation?		
12	Does your <b>Land size</b> favour you to participate in market oriented production?		
13	Does your <b>Age</b> limit you to participate in bean income generating activities?		
14	Does being <b>married</b> increase your access to factors of production like land?		
15	Does your <b>Level of education</b> limit you from participating in marketing		

	of bean?		
<b>16</b>	What is the distance from your home to the feeder road?		
<b>17</b>	What is the distance from your home to the main road?		

**18.** What other factors within your household limits you to participate in the marketing of beans.....

**19.** What other factors outside your household facilitates or limits you to participate in the marketing of beans? .....

**20.** What do you think must be done to ensure that men and women equitably benefit financially from marketing of climbing beans? .....

**21.** What do you think must be done to maximise equitable participation of women and men participation in marketing of beans.....

**Part E. DEMOGRAPHIC CHARACTERISTIC OF THE RESPONDENT FARMER**

Characteristic	Tick appropriate answer and write answers in blank space			
<b>E.1</b> Gender	Man <input type="checkbox"/>		woman <input type="checkbox"/>	
<b>E.2</b> Are you the family head?	Yes <input type="checkbox"/>		No <input type="checkbox"/>	
<b>E.3</b> Age of respondent	0- 17years <input type="checkbox"/>	8-35 years <input type="checkbox"/>	36-60years <input type="checkbox"/>	70years + <input type="checkbox"/>
<b>E.4</b> Marital status	Married <input type="checkbox"/>	Single <input type="checkbox"/>	Widowed <input type="checkbox"/>	Separated <input type="checkbox"/>
<b>E.5</b> level of education	Primary <input type="checkbox"/>	Secondary <input type="checkbox"/>	Tertiary <input type="checkbox"/>	
<b>E.7</b> Off-farm employment	Yes <input type="checkbox"/>		No <input type="checkbox"/>	

Any question for me?

Thanks for your time and knowledge



## Appendix 2: Focus group discussion interview guides

### Tool 1: Access and Control Profile – Resources and Benefits

It identifies whether women or men have access to resources, who controls their use and who in the household or community controls the benefits from them (benefits can include outside income, basic needs, training).

#### Template 1.a separate group’s men and women groups

<i>Resources</i>	Access			Control		
	Men	Women	Young	Men	Women	Young
1. Land						
2. Seeds						
3. Fertilizer						
4. Pesticide						
5. Hoes						
6. Oxen						
7. Tractors						
8. Weeders						
9. Sprayers						
10. Threshers						
11. Gunny bags						
12. Stores						
13. Telephones						
14. Bikes						
15. Cars						
16. Market Stalls						
17. Groups						
18. Cooperatives						
19. Access to Credit						
20. Hired labor						
21. Education/training,						
22. Cash						
<b>Benefits</b>						
1. Credit						
2. VSLA						
3. Cash sales						
4. Basic needs (food, clothing, shelter etc.)						
5. Ownership of assets						
6. Markets						
7. Education						
8. Political power /prestige						

### Tool 2: Gender Analysis and Participatory Variety Selection of climbing beans

**Purpose of tool:** To analyze the gender division of labor, access and control of resources and benefits, and participation in decision-making for climbing beans. The tool has three components:

A Production analysis

B Input supply

C Marketing

**Interview group:** Separate Farmers groups of women and men growing the crop in question or Mixed Group

**Template 2A: Production Analysis**

<b>District:</b>		<b>Sub-county:</b>		<b>Village:</b>		<b>Group:</b>	
<b>Date:</b>							
<b>Key Informants:</b>		<b>#Women</b>		<b>#Men</b>		<b>#Youth M:</b>	
<b>F:</b>							
<b>Enterprise Activities</b>	<b>Women</b>	<b>Men</b>	<b>Others specify</b>	<b>Inputs/ implements Used</b>	<b>Differences between middle wealth HH's, richer HHs and poor HHs</b>		
					<b>Richer HHs</b>	<b>Middle HHs</b>	<b>Poor HHs</b>
<b>Climbing beans</b>							
Land clearance							
Tillage (hand)							
Tillage (oxen)							
Seed selection and seed procurement							
Planting /sowing							
Staking							
Fertilizer/ manuring							
Spraying/ weeding							
Drying							
Harvesting							
Threshing							
Winnowing							
Processing/ value Adding							
Storing							
Day to day management							
Others							
Main labour peak and coping mechanism							
Impact on production if key adult in HH ill or dies							

**Template 3 - Input Supply Analysis of Climbing Beans**

<b>District:</b>	<b>Sub-county:</b>	<b>Village:</b>
------------------	--------------------	-----------------

<b>Group:</b>	<b>Date:</b>		
<b>Key Informants:</b>	<b>#Women</b>		<b>#Men</b>
<b>#Youth M: F:</b>			
	<b>Household Type</b>		
	<b>Richer HHs</b>	<b>Middle Wealth HHs</b>	<b>Poor HHs</b>
	% consumed at home	% consumed at home	% consumed at home
	% Sold	% Sold	% Sold
Preference for Seed Variety and reason why	Women: Men:	Women: Men:	Women: Men:
Sources of seeds (% from different sources)	Women: Men:	Women: Men:	Women: Men:
Source of draught power (farm power)			
Sources of fertilizer (% from different sources)			
Sources of other inputs (% from different sources)			
Sources of credit (% from different sources)			
Source of knowledge and skills	Women: Men:	Women: Men:	Women: Men:
Sources of advisory information e.g.	Women: Men:	Women: Men:	Women: Men:
Training by sex			

### Template 4 C - Marketing Analysis Climbing

<b>District:</b>	<b>Sub-county:</b>	<b>Village:</b>	<b>Group:</b>
------------------	--------------------	-----------------	---------------

<b>Date:</b>				
<b>Key Informants:</b>	<b>#Women</b>	<b>#Men</b>		<b>#Youth M:</b>
<b>F:</b>	<b>Household Type</b>			
	<b>Richer HHs</b> <b>Women</b> <b>Men</b>	<b>Middle</b> <b>HHs</b> <b>Women</b>	<b>Wealth</b> <b>Men</b>	<b>Poor HHs</b> <b>Women</b> <b>Men</b>
Role of enterprise in HH economy	% consumed at home % Sold	% consumed at home % Sold		% consumed at home % Sold
Market Outlets used and frequency of visits to each outlet				
Average volume sold on each visit				
Average volume sold on each season				
Estimate of total amount sold annually				
Mode of Transport				
Sale outlet (Private, trader/buyer, cooperative, direct to consumer)				
Influences on volume sold and frequency of sales				
Control of income received from marketing				
Use of income received from marketing				

**Use scale of 1-10**

**Tool 5: Review of Technologies and Practices in Community (including labor saving technologies, pre & post harvesting tools)**

**Purpose of Tool:** to understand the processes by which existing & new technologies and practices have been introduced and adopted in the community.

**Interview group:** Mixed Focus Group Discussion

Ensure a balance between women and men

### Questions

1. What technologies or practices have been introduced or adapted for assisting with different farming or household activities during the last 10-15 years?
2. What labor saving technologies and/or pre- post-harvest tools have been introduced or adopted for assist women/men farmers undertake farming or household activities more effectively and efficiently (Record answers across the top of the matrix overleaf)

*For each technology or practice that has been introduced, ask the following questions:*

3. When was it introduced or adapted?
4. By whom and why?
5. How was it introduced or adapted?
6. Who made the decision to adopt the technology or practice (men, women, other, joint decision)?
7. Who uses the technology and who controls its' use (men, women, adults, youth)?
8. Who benefits from the new technology (men, women, adults, and youth)? Is anyone disadvantaged?
9. What has been the impact of these changes on agricultural production (for example, the total area under cultivation (rain fed/irrigated), the use of fallow periods, change in cropping patterns, change in use of farm inputs, change in marketing)?
10. What has been the impact of adopting the new technologies on;
  - a. intra-household division of labor and gender relations
  - b. Women's livelihood
  - c. Productivity
11. What has been the impact of these changes on the livelihoods, gender equity, food security and well-being in the community?
12. Estimate the number of households in the community using the technology or practice or labor saving tool at present.
13. Discuss why other households in the community do not use the technology or practice.
14. Have any technologies or practices been introduced but failed?
15. What technologies or tools do you recommend to enable farmers especially women increase or expand yields from climbing beans

**USE TEMPLATE 5.1to record data**

A technology is anything that simplifies work and improves production; examples include crop v

<b>District:</b> <b>Date:</b>	<b>Sub-county:</b>	<b>Village:</b>				<b>Group:</b>
<b>Key Informants:</b>	<b>#Women</b>	<b>#Men</b>	<b>#Youth M:</b>	<b>F:</b>		
<b>Description</b>	<b>Technology or Practice including labor/pre and post harvesting tools and bean varieties</b>					
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	
When introduced/ adapted?						
By Whom?						
How was it introduced /adapted?						
Who made the decision to adopt it?						
Who uses it (women, men, and rich, poor)?						
Who controls its use? (women, men, rich, poor)						
Who are the main beneficiaries? (Women, men, rich, poor) and why?						
What explains differential adoption of the technology between men and women						
What impact has it had on Climbing Bean production?						
What impact has it had on intra household labor division?						
What impact has it had on enabling farmers expand or increase their enterprises						
What impact has it had on livelihoods, food security and the wellbeing of communities?						
Percentage of households using the technology or practice or labor saving technology						
Reasons for non-adoption or labor or labor saving tool						
Technologies or practices or labor saving technologies introduced but failed						
What other existing/new labor saving, pre and post-harvest technologies could be adopted by farmers to improve productivity?						

Technologies include labor saving tools, bean varieties, agro-chemicals, practices and knowledge

### Appendix 3: Key informant interview guides

KII Guide (LC women leaders, CBO, Farmer Group leaders, Traditional leaders, Opinion Leaders, Faith Leaders)

**District:** ..... **sub county:** .....

**Key Informant:** ..... **Gender** (*tick one*):

**Male...../Female.....**

***Part 1: Participation of men and women in climbing bean value chain***

1. What is your personal understanding of the word gender?
2. What is an example of a gender related issue in your community/ work environment?
3. What is the pattern of participation by women and men in the climbing value chain?
4. At what levels of the climbing bean value chain do the women and men participate?
5. What are the visible indicators of participation by women and men at the different segments of the climbing bean value chain?
6. What are the reasons for differential participation by men and women in the different segments of the climbing bean value chain?

***Part 2: Gender related factors in climbing bean value chain***

6. What are the gender related issues in climbing bean value chain in your community?
7. How are the gender related factors manifested along the climbing bean value chain?
8. How does the local culture/ tradition influence relationships between men and women in your area/ community?
9. Give an example of such a cultural gender relationship between men and women in climbing bean business
10. What socio-cultural factors in your area do influence women and men participation in income generating activities in the value chain of climbing beans?

***Part 3: Impact of gender related factors***

11. How do gender issues mentioned above influence the climbing bean value chains at:
  - a) Production level
  - b) Marketing stages and
  - c) During value addition?
12. In your opinion, what impacts do gender related factors have on equitable income generation and benefit outcomes from climbing beans?
13. What factors do you think influences differences between men and women level of participation in income generating activities related to climbing beans?

***Part 4: Opportunities for women in climbing businesses***

14. What are the constraints for establishing women led businesses in:
  - a) Production,
  - b) Value addition and
  - c) Marketing segments for climbing beans?

15. How can these constraints be overcome in order to enhance equitable business opportunities for women and men?
16. What opportunities do exist for establishing women led businesses in:
  - a) Production,
  - b) Value addition and
  - c) Marketing segments for climbing beans in your area?
17. How can the opportunities be maximized for equitable benefit of men and women?

**Part 5: Existing and new labour-saving technologies for women and men**

18. What are the existing labour-saving technologies (if any) for women and men farmers in your community?
19. How do these technologies above, help to save labour for women and men?
20. What are some new labour-saving technologies that can be beneficial to women?
21. In your opinion, what could be the factors that explain the differences in levels of adoption of climbing bean technologies between men and women?
22. Which of the existing/new labor saving (pre and post-harvest) technologies could be scaled-up for farmers in your area? (Please rank them in order of feasibility)
23. Where are these technologies got? How?

**Part 6: Suggestions for improving gender inclusion in climbing bean chain**

24. What needs to be done to maximize women and men’s participation in all segments of climbing beans value chain?
25. What factors and practices must be considered in technology development and dissemination to ensure that both men and women benefit equally in the value chain of beans?
26. Is there anything else you would want to say about improving equitable inclusion of women and men in the climbing bean value chain in your community?

**Part 7: Demographic Information**

29. Age of respondent.....
30. Education attainment.....
31. Marital status.....
32. Occupation.....Other off-farm employment.....
33. Experience with climbing beans business.....

Thank you for your contribution

**A: KII Guide for Value Chain Actors (Input Suppliers & Business Development Providers)**

**District:** ..... **sub county:** ..... **Date:**  
.....

**Key Informant:** ..... **Gender (tick one):**  
**Male...../Female.....**

**Part A: ACCESS TO ASSETS**

1. Is this enterprise owned by a man or a woman?



2. How did you raise the funds to purchase/obtain the business?
3. How many employees (men /women) do you have?
4. Do you offer credit to your purchasers?
5. Follow up: Are more of them men or women?

**Part B: PRACTICES AND PARTICIPATION**

6. Who carries out the day to-day operations of the business?
7. What are the hours of operation of your store/business?
8. What kind of jobs do men and women do in the business?
9. How do you/your employees get to and from work?
10. Do you have more men or women as customers?
11. Are there differences in the purchases made by men and women producers?
12. Follow up: Provide an example.

**Part C: BELIEFS AND PERCEPTIONS**

13. Do you believe that men or women are better suited to particular jobs in your business?
14. Do you believe there is a difference in how men and women use inputs in their climbing bean enterprises? Follow up: Provide an example.
15. Are there differences in men's and women's preferences in purchasing inputs, e.g., timing, pricing and size?
16. In your opinion, are men or women more creditworthy?
17. What are the gender issues in the climbing bean value chain in this community?
18. How do gender issues influence women's participation in input suppliers and business development
19. How do gender issues influence the climbing bean production, marketing and value addition?
20. What impact does gender related factors have on equitable income generation from climbing beans?
21. *What factors influences women and men participation in income generating activities related to climbing beans*

**22. D: LAWS, POLICIES, REGULATORY, INSTITUTIONS**

23. Are there laws or policies that make it hard for you to run your business?
24. Are there regulations that affect types of work that men and women are allowed to do?

**Part E: RECOMMENDATIONS**

25. What needs to be done to maximize women and men's participation in all segments of climbing beans value chain?
26. What factors and practices must be considered in technology development and dissemination to ensure that both men and women benefit equally in the climbing bean value chain?

Thank you for your contribution

## **B: KII Guide for Value Chain Actors (Producer Associations Leaders)**

### **Introduction**

**District:** ..... **sub county:** ..... **Date:**

.....

**Key Informant:** ..... **Gender** (*tick one*):

**Male**...../**Female**.....

### **Part A: ACCESS TO ASSETS**

1. What benefits do you expect to gain from your participation in the farmer association?
2. How much is membership fees?
3. Follow up: How often do they have to be paid?
4. What kinds of resources does it take to run for association office?

### **Part B: PRACTICES AND PARTICIPATION**

5. Tell us about the activities of the producer association.
6. When are meetings held? And how often are they held? ....Probe why?
7. What time of day are they held? And where are they held? ..... Probe why?
8. What are the criteria for membership in the association?
9. How many men and women are in the association?
10. How many officers are in the association?
11. How many women serve as officers?

### **Part C: BELIEFS, PERCEPTIONS & POLICIES**

12. Do you believe that being a man or a woman helps someone in running for an association office?
13. What are the gender issues in the climbing bean value chains in this community?
14. How do gender issues influence women's participation in input suppliers and business development?
15. How do gender issues influence climbing bean production, marketing and value addition?
16. What gender related factors are responsible for differential participation in market oriented production of beans between men and women?
17. *What factors influences women and men participation in other income generating activities related to climbing beans?*
18. Are there laws or policies that make it hard for you to run your producer association?

### **Part D: RECOMMENDATIONS**

19. What needs to be done to maximize women and men’s participation in all segments of climbing bean value chains?
20. What factors and practices must be considered in technology development and dissemination to ensure that both men and women benefit equally in climbing bean value chain?

Thank you for your contribution

**C: KII Guide for Value Chain Actors (Processors)**

**District:** ..... **sub county:** ..... **Date:**

.....

**Key Informant:** ..... **Gender** (*tick one*):

**Male**...../**Female**.....

**Part A: ACCESS TO ASSETS**

1. Is this enterprise owned by a man or a woman?
2. How many employees (men/ women?)
3. Tell us about how you find your suppliers.
4. Are you aware of who (men or women) own or manage the farms/businesses from which you purchase?

**Part B: PRACTICES AND PARTICIPATION**

1. Who carries out the day to- day operations of the business?
2. What are the hours of operation of your plant?
3. How do you and your employees get to and from work?
4. What kinds of jobs do men and women do in the plant/factory? .... Probe why?
5. Do you have more men or women as customers?

**BELIEFS, PERCEPTIONS & POLICIES**

1. Are there aspects of processing that are believed to be more difficult for men, women/men? ....probe why?

Follow up: What is an example of such a task?

2. Are there types of jobs that men/women are discouraged from doing?

Follow up: What is an example of such a task?

3. Do you believe that there are differences in the supply or quality of the product that you receive from men vs. women?

Follow up: What is an example of such a difference?

4. What are the gender issues in climbing bean value chain in this community?
5. How do gender issues influence women’s participation in input suppliers and business development?
6. How do gender issues influence the climbing bean production, marketing and value addition?

7. What impact does gender related factors have on intensification and diversification of income and nutritional outcomes?
8. *What factors influences women and men participation in income generating activities of climbing beans?*
9. Are there laws or policies that prohibit men or women from performing particular jobs in the plant/factory?

## **RECOMMENDATIONS**

10. What needs to be done to maximize women and men's participation in all segments of bean value chain?
11. What factors and practices must be considered in technology development and dissemination to ensure that both men and women benefit equally in climbing bean production

**Thank you for your contributions**

**D: KII Guide for Value Chain Actors (Buyers and Traders)**

**District:** ..... **sub county:** ..... **Date:**  
.....

**Key Informant:** ..... **Gender (tick one):**  
**Male...../Female.....**

**Part A: ACCESS TO ASSETS**

1. How many buyers/traders in your field are men? How many are women?
2. What makes it harder for women to become buyers/traders?
3. What kinds of resources do you need to be a buyer/trader?
4. How many employees (men/women?)
5. Tell us about how you identify the people you buy from.
6. Have you noticed any differences in buying from men and from women?

**Part B: PRACTICES AND PARTICIPATION**

7. Who carries out the day to- day operations of the business?
8. How many hours per day or week do you work?
9. How do you/your employees get to and from work?
10. What kind of jobs do men and women do in the business?
11. Do you have more men or women as customers? in

**Part C: BELIEFS, PERCEPTIONS & POLICIES**

12. What are the characteristics that make a successful buyer/trader?
13. Are there aspects of purchasing/trading that are believed to be more difficult for men or women? Follow up: What is an example of such a task?
14. Are there types of jobs that men or women are discouraged from doing? Follow up: What is an example of such a task?
15. What are the gender issues in climbing bean value chain in this community?
16. How do gender issues influence women’s participation in input suppliers and business development?
17. How do gender issues influence climbing bean production, marketing and value addition?
18. What impact does gender related factors have on intensification and diversification of income and nutritional outcomes?
19. *What factors influences women and men participation in income generating activities along the value chain of climbing beans?*
20. Are there laws or policies that make it hard for you to run your business?

**Part D: RECOMMENDATIONS**

21. What needs to be done to maximize women and men’s participation in all segments of bean value chains?
22. What factors and practices must be considered in technology development and dissemination to ensure that both men and women benefit equally in climbing bean chain

**Thank you for your contribution**

**E: KII Guide for Value Chain Actors (Women Leaders/ Women Business Owners)**

**District:** ..... **sub county:** ..... **Date:**  
 .....

**Key Informant:** ..... **Gender (tick one):**

**Male...../Female.....**

*The questions are primarily targeted at understanding women’s roles in agriculture, current participation in the project, and possible opportunities for the project to work with more women.*

**Part A: Introduction**

1. Tell us about an average work day for you. What are your activities and work from the time you wake up until the time you go to bed? (How does this vary by season?)
2. What activities are you engaged in through the association?
3. Are you involved in additional agricultural activities?
4. What tasks do you need men to perform? (What problems/constraints does this pose for you?)
5. What tasks would you like to do but can’t because you are a woman?

**Part B: Benefits from the Association**

6. Why did you decide to participate in the association?
7. Was anyone else involved in this decision?
8. How have you and other members benefitted from the association?

**Part C: Incentives and suggestions**

9. How did you come into this role as \_\_\_\_\_?
10. Would you like to continue your life in this area? Why /why not?
11. Are you satisfied with your responsibilities as \_\_\_\_\_? Or do you wish you had more or fewer responsibilities, or totally different responsibilities?
12. How would you like projects to help you achieve your desired future?

**Part D: Participation and access to project activities**

1. Where can you go to attend a workshop? (If you wanted to participate in a training or workshop, where would you recommend that a trainer holds that workshop?) For how long? ....probe why?
2. In what ways could other women farmers benefit from the association activities?
3. What are the gender issues in climbing bean value chain in this community?

4. How do gender issues influence the grain legume production, marketing and value addition and input supply?
5. What impact does gender related factors have on expanding /increasing income and nutritional benefits?
6. What constraints do exist for establishing women led businesses in production, value addition and marketing segments for climbing beans?
7. How can these constraints be minimized for more equitable benefit of men and women in business?
8. What business opportunities do exist for women along the value chain of climbing beans?
9. What actions need to be taken for women’s inclusion and to maximize these opportunities?
10. What labor saving and pre- post-harvest tools have been introduced or adopted for assist women/ farmers undertake farming or household activities more effectively and efficie

**Interview Guide for Questions for Experts/Government officials, CDOs, DGOs, NGOs**

**District:** ..... **sub county:** ..... **Date:**

.....

**Key Informant:** ..... **Gender (tick one):**

**Male...../Female.....**

1. What are men’s and women’s roles in climbing bean value chain?
  - a) What about widows and divorced women?
  - b) What about young women who aren’t married yet?
2. Are there any organizations that focus on women’s empowerment, particularly for income generation through bean production?
3. Are there any organizations that focus on engaging men in gender issues, such as gender-based violence?
4. What are traditional practices that influence control of resources are seen in your community?
5. How is income managed in households?
  - a). Do husbands and wives “pool” incomes?
  - b). who decides how income is spent on:
    - i). Income-generating investments?
    - ii). Food?
    - iii). Healthcare?
    - iv). Education?
6. What are the other gender issues in the climbing bean value chain in this community?
7. How do gender issues influence the climbing production, marketing and value addition and input supply?

8. What impact does gender related factors have on expanding /increasing income and nutritional benefits?
9. What constraints do exist for establishing women led businesses in production, value addition and marketing segments for climbing beans?
10. How can these constraints be minimized for more equitable benefit of men and women in business?
11. What are some of the business opportunities for engaging women along the beans value chain?
12. What actions need to be taken for more inclusion of women and to maximize these opportunities?
13. Are you aware of any new technologies or tools that would help women in their work, in the household, farming and business? (Labor saving, pre- post-harvest tools, others?)
14. What critical resources do women not have access to and control over (e.g., land, training, inputs, technologies, equipment, information, health care, water, loans, savings, etc.)? How does this differ between women and me