

**SOCIAL CULTURAL FACTORS INFLUENCING WOMEN'S PARTICIPATION IN
FOOD SECURITY PROGRAMS AMONG HOUSEHOLDS IN**

BOMET COUNTY, KENYA.

BY

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**A RESEARCH PROJECT REPORT SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE AWARD OF MASTER OF ARTS**

DEGREE IN PROJECT PLANNING AND

MANAGEMENT OF THE

UNIVERSITY OF NAIROBI

2016

DECLARATION

This research project report is my original work and has never been presented for the award of any degree in any university

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This research project report has been submitted for examination with my approval as the university supervisor

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DEDICATION

To my Mum Anna and Dad Daniel Rotich for their unwavering support in my life

ACKNOWLEDGEMENT

Its important to single out specific individuals whose contribution in different forms I count on for the development of this research project. To begin with I would like to appreciate the efforts of my research supervisor Dr. Moses Otieno for offering guidance and professional advice, of which the study would not have been a success. Beside, without the constant engagement with the various course lecturers Mr Onuonga Odhiambo,Mr Koech who offered expert advice on the research technique, am sure little would have been generated. I also thank all the respondents who participated and spared their time in the study. Much appreciation also goes to the research assistants for the tireless effort and input during the study. I will also not forget my brother Ben, Pastor Dan and my colleagues namely Stella Chepkemoi ,Nick Langat Inspector Winny,Wesley Yegon whose moral and spiritual support played a key role in this project. Appreciation also goes to the librarians in KALRO Headquarters, Jomo Kenyatta Memorial Library and IDS library. Much gratitude goes to Mr Rono who typeset and ensured the work is in order.

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LIST OF ABBREVIATIONS AND ACRONYMS

SSA	Sub Sahara Africa
WHO	World Health Organization
FAO	Food And Agricultural Organization
UN	United Nations
GHI	Global Hunger Index
KNBS	Kenya National Bureau of Statistics
AWSC	Africa Women Studies Institute
ICESCR	International Covenant on Economic, Social, and Cultural Rights
IFAD	International Fund for Agricultural Development
UN- ECOSOC	United Nations Economic and Social Council
UDHR	Universal Declaration on Human Rights
SID	Society for International Development

ABSTRACT

The research study was based on the social cultural factors influencing women's participation in food security programs among households in Bomet County. The study was guided by the objectives; the influence of land ownership on women's participation in households food security, how gender division of labour influence women's participation in households food security, the influence of the level of education of household heads on women's participation in households food security, the influence of headship of households on women's participation in households food security. The study was significant to both the county and national governments and other development agencies in getting to determine the level of food security among households in order to put in place policies aimed at addressing challenges households face and mitigate on the forces causing food insecurity. The study was grounded on the best assumption respondents gave information honestly and objectively. Moreover it was also based on the assumption that data collection instruments were reliable and valid in taking the desired outcomes. The study was anchored on Sen's theory of Entitlement. Adopted in the study is the probability sampling design employing simple random sampling techniques packaged in a descriptive survey design. The study was targeting accessible rural household's heads of Bomet Central Sub County where the study was centered on. The findings were summarized in form of tables using frequencies and percentages and using Chi-square analysis. This study was significant because it raised awareness of households' food security and recommends a raft of policy measures in which it was to help in enhancing women's participation in food security programs.

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

Food security has been a global concern since the 1974 World Food Conference, held at a time when world food supplies were tight and large-scale food shortages and starvation appeared imminent. The world food situation has been critical in the last two decades and will remain so in the future. World food production cannot keep pace with the increase in population as recognized by Malthus 200 years ago that the population increase is logarithmic and the increase in food production is linear. As reported in June 2009 (FAO) World Hunger Hits One billion, the number of malnourished people in the world rose to over 1 billion, up from 915 million in 2008. The World Health Organization (WHO) cites malnutrition as the gravest single threat to the world's public health and the biggest contributor to child mortality in the world. Countries with the most alarming hunger status are predominantly located in sub-Saharan Africa where one in three persons suffers from chronic hunger (WHO, 2014). FAO (2012), reports that about 870 million people are estimated to have been undernourished (in terms of dietary energy supply) in the period 2010–12 and in need of assistance at any given time.

There has been much talk, especially since the UN decade for women on how women has been excluded from the development process and tend to be among the most disadvantaged of those from the poorer classes in low income countries. Women produce a considerable part of the world's food; 80 to 90 percent in sub-Saharan Africa, 50 to 90 percent in Asia, and 30 percent in

central and Eastern Europe, according to FAO (FAO,2012).Despite this contribution to food production in most cases women do not control their own land.

In the Asia Pacific, widespread discrimination against women and girls – socially, culturally and legally – results in lower agricultural productivity and poorer health and nutrition, especially among women and girls, who make up 60 percent of undernourished people worldwide, the report says. It details how three crises – the spike in food prices, the global economic downturn and climate change – disproportionately affect women and girls. They are given less food than men and boys, are not sent to school when household funds are low and are the first to be laid off when employers suffer financial setbacks. Amid more drought and floods, women, who make up the bulk of small-scale farmers, are hard hit in both their loss of income and their ability to feed their families (FAO, 2012).

At the regional level those affected by inadequate food would mention poor division of labour and land ownership as reasons for reduced per capita harvest, while at a household level undernourishment is caused by lack of food, low spending power and knowledge. Food shortage is the result of inadequate production, lack of storage capacity and the ensuing losses and unjust distribution within the family, (Young, 1994).A study on gender and growth in Sub Sahara Africa suggests that gender inequality acts as a significant constraint to growth (including food security) in SSA and that removing gender based barriers to growth will make substantial contribution to realizing economic potential, (Blackden et al, 2006).

The responsibility for providing care often falls disproportionately on women. As a result of their multiple responsibilities, women are often unable to spend sufficient time on food preparation, child feeding and other caring activities that have beneficial nutritional outcomes. Studies

undertaken by the International Food Policy Research Institute (IFPRI) in Botswana, Ghana and Kenya (Brown and Haddad, 1994) and in Zambia (Kumar, 1994) pointed out that considering that children are valuable resources in terms of their contribution to productive activities, very little is invested in them in terms of direct care time. Time recorded in direct child care was generally less than one hour per day.

Women often face difficult choices in their time allocation decisions. Recent data from different African countries support the popularly held belief that women not only work longer hours than men but also spend more hours in productive activities per day than men. Data from the region of Mbeya in the United Republic of Tanzania, a largely agricultural area, revealed that women worked 12 to 14 hours during the dry season and 14 to 17 hours during the wet season, without rest, whereas men worked eight to ten hours in the dry season and ten hours in the wet season, with a rest period of three to four hours (Mwalemba, 1995).

In many Kenyan communities, the cultural practices and many attitudes through which people are socialized determine gender relations. Because of the strong social and cultural beliefs and practices, many Kenyan women have less access to resources and decision making roles than they are entitled to,(Republic of Kenya, 2009). Smith, Theano, Torbett, and Toussaint (2008) assert that before the enactment of the new constitution in 2010, Kenya's myriad land statutes discriminated against women by: (a) invoking customary law which generally confers exclusive control of land on men, to govern land rights; (b) vesting in men absolute sole ownership rights to registered land; and (c) adopting procedures that insulate customary laws from appeal and judicial scrutiny. However, even with the new constitution, customary land law still prevails because it is very hard to change people's mind set and women still have to fight to have the

same land rights as men and especially at the household level. It is even worse for unmarried or divorced women who have returned to their parent's home since it is expected that women are supposed to be married and inherit land from their husbands. In such cases, the brothers or male relatives disinherit them and although some women try to fight for their rights, they find it very difficult since the whole affair is very costly and most times such cases lead to a lot of family feuds which most women would want to avoid.

The Global Hunger Index (GHI) estimated by the International Food Policy Research Institute (IFPRI) to measure and track global hunger ranks Kenya the country number 55 behind such countries as South Africa, Uganda, Congo DR and Malawi, among other countries in terms of global hunger index indicating a serious food security problem. A study by African Women's Studies Centre (AWSC) and KNBS (2014) found that nine percent of Kenyans suffer from chronic food insecurity. About 24.4 percent suffer from low food insecurity and only 66.6 percent are food secure. However, counties such as Turkana have approximately 39.2 percent of their people suffering from chronic food insecurity, followed by Kisii at 24.2 and Migori at 20.8 percent. Only 23 percent of households in Turkana County are food secure, 34 percent in Kisii and 42 per cent in Migori. In the same study, Bomet county 83.7 percent were found to be food secure while 14.6 percent suffered food insecurity.

In Mount Elgon Sub county incidences of food insecurity has persisted despite increased agricultural yields due to fertile soils and favorable weather conditions. According to PAPOLD (2012) 52% of the rural households are food insecure; they have continued to encounter difficulties in availability and accessibility of food. However, no adequate information exists to

explain this. Food insecurity remains one of the most crucial challenges to economic development (Deacon, 2004;White, 2005).

In Bomet Central Sub County, Women form the bulk of the work force in the tea growing areas: working on the tea farms, weeding, fetching water, looking for firewood besides the household chores of providing care for the children. There is therefore ample recognition of the importance of women social roles in choosing, buying, preparing and cooking food for the family. Heavy or increasing work burden upon a woman in subsistence farming and other economic activities may come into conflict with her domestic duties.

1.2 Statement of the Problem

Focusing the lens of social and economic development on women and girls is the most inexpensive and effective tool in the fight against hunger and malnutrition, says a new study on gender and food security in the Asia Pacific region. Women's education alone resulted in a 43 percent reduction in hunger from 1970 to 1995, while women living longer led to an additional 12 percent decline in hunger levels, according to the report by the U.N. Food and Agriculture Organization (FAO) and the Asian Development Bank (ADB).

Approximately 10 percent of Kenya's population, or 3.8 million people, live in a chronic state of food insecurity (USDA, 2009).The most vulnerable of whom include women and children (Kimani-Murage, et al., 2011). Women compose the poorest segment of rural population and make up to more than 70% of all people living in absolute rural poverty. The traditional gender division of labour, intra-household rights and obligations is weakening, the gender-based

division of labor breaking down and farm women are increasingly undertaking tasks which were hitherto said to be undertaken by men.

In order to ensure food security, provide adequate nutrition for the population and impact positively on poverty, education and human development, investment is needed. Those living in the rural areas, especially, women must have access to productive resources such as land, credit and inputs to grow enough food for their households. Research evidences show that empowering rural women—increasing economic assets that women control has a positive impact on the family, particularly on food and nutrition security, health and education. It is in the interest of these compelling empirical evidence that this study seeks to investigate the influence of social cultural factors on Women’s participation in households food security programs in Bomet County.

1.3 The Purpose of the Study

The purpose of the study was to investigate the influence of social cultural factors on women’s role on household food security programs in Bomet County.

1.4 Objectives of the Study

The study was guided by the following objectives;

1. To assess the influence of land ownership on women’s participation in households food security programs in Bomet County.
2. To analyse how gender division of labour influence women’s participation on household food security programs on in Bomet County.
3. To examine the influence of the level of education of household heads on women’s participation on household food security programs in Bomet County.

4. To determine the extent to which headship in households influence women's participation on household food security programs in Bomet County.

1.5 Research Questions

The study offered answers to the following research questions

1. What is the level of influence of land ownership on women's participation in household food security programs in Bomet County?
2. To what extent does gender division of labour influence women's participation in food security programs in household in Bomet County?
3. How do the level of education of household heads influence women's participation in household food security programs in Bomet County?
4. To what level does headship in households influence women's participation in household food security programs in Bomet County?

1.6 Significance of the Study

The study is significant to several people working in government sectors of Agriculture, Finance and Economic planning in both the national and county governments as this will form the basis for policies aimed at addressing food security. It will also be a guide to those aid organization, civil society and religious groups on providing assistance to vulnerable groups to political, economic and social shocks. Besides the families also will be made aware of the level of vulnerability to food insecurity and be able to mitigate its effects. This study will also benefit

future researchers as this will provide the required information and the gaps that need to be addressed.

1.7 Limitations of the Study

Bomet County is relatively a rainy and wet area throughout the year. The study was therefore limited by unfavorable weather conditions as it was undertaken during the period of long rains. Most roads were impassable which hindered data collection. This was overcome by using morning hours and motor cycle to reach remote areas. In addition, most respondents were hesitant to give information. This limitation was addressed by explaining to the respondents that the purpose of the study was purely academic and that the information was to be treated with utmost confidentiality.

1.8 Delimitation of the Study

The study was limited to Bomet central sub County and was spread among the selected Wards of Chesoen, Ndarawetta, Mutarakwa, Singorwet and Township within the sub county. Also the study focused only on rural households of Bomet central Sub County and to the variables under study.

1.9 Basic assumptions of the study

The study was based on the basic assumption that the data collection instruments were valid and reliable in measuring the desired outcomes. Moreover the study assumed that the respondents gave information honestly and objectively. Also in this study, it was assumed that these factors

when well practiced can be a solution to food security problems in Bomet County area. In addition, another assumption is that these factors under study; the level of education, gender division of labour, headship and land ownership are dependent on each other.

1.10 Definition of significant terms as used in the study

The following terms have been defined by the researcher in the context of the study;

Food security : when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life.

Household food security: is the application of this concept to the family level, with individuals within households as the focus of concern.

Food insecurity: exists when people do not have adequate physical, social or economic access to food

Food Access: Individuals have adequate incomes or other resources to purchase or barter to obtain levels of appropriate foods needed to maintain consumption of an adequate diet/nutrition level

Households: A domestic unit consisting of the members of a family who live together along with nonrelatives.

Sustainability of food supplies: refers to the capacity to ensure the long-term stability of the household food supply and the ability of households to meet consumption and livelihood needs on a continuous basis.

1.11 Organization of the study

This study is organized into five Chapters. Chapter one of this study starts with introduction of the study, statement of the problem, purpose of the study, objectives, research and significance of the study. Chapter two is comprehensive review of relevant literature on the factors that influence women's participation in food security programs among the rural households. In chapter three, the study explains data collection instruments, such as questionnaires and interviews, data analysis methods and data presentation techniques. .Chapter four gave data analysis ,presentation interpretation and discussion .Chapter five gave key summary findings, conclusion and recommendation based on the findings of the study.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter features a review of literature from previous scholarly work related to the area of study. Literature is reviewed against the prism of key study variables; influence of education level, gender division of labour, headship of household and land ownership on women's participation in household food security programs. It also contains the study theoretical and conceptual framework.

2.2 The concept of Food security

In 2000, world leaders met and adopted the United Nations Millennium Declaration. Later, eight Millennium Development Goals (MDGs) were set out, including the first one on halving hunger and extreme poverty rates, and “reduce by half the proportion of people who suffer from hunger” between 1990 and 2015, reflecting the world's commitment to improving the lives of billions of people. Based on the latest estimates, about 795 million people remain undernourished globally, down 167 million over the last decade, and 216 million lower than in 1990–92. This means that just over one in every nine people in the world are currently unable to consume enough food to conduct an active and healthy life. Eastern Africa remains the sub region with the biggest hunger problem in absolute terms, being home to 124 million undernourished people (FAO, 2015).

Progress towards food security and nutrition targets requires that food is available, accessible and of sufficient quantity and quality to ensure good nutritional outcomes. Proper nutrition

contributes to human development; it helps people realize their full potential and take advantage of opportunities offered by the development process. Economic growth, while a necessary condition for progress in poverty and hunger reduction, especially in the face of an expanding population, is not sufficient. It is inclusive growth that matters – growth that promotes equitable access to food, assets and resources, particularly for poor people and women, so that individuals can develop their potential. Across the developing world, the majority of the poor and most of the hungry live in rural areas, where family farming and smallholder agriculture is a prevailing – albeit not universal – mode of farm organization,(FAO,2015).

The achievement of national food security is a key objective of the agricultural sector. Food security in this case is defined as “ a situation in which all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life” (Kenya Food Security Steering Group, 2008). Kenya has a real problem in terms of food security and can be classified as one of those countries suffering from food insecurity. Article 43 (1)(c) of the Constitution of Kenya (2010), guarantees food security to all Kenyans and this right to food as presented in the Kenya Constitution implies three obligations of the government: respecting, protecting and fulfilling that right, meaning that it has to implement strategies that will guarantee food security to all Kenyans (AWSC,2014).

Accordingly, food security can be viewed from a national, household or nutritional point of view. National food security requires both the production and the ability to import food from global markets to meet a nation’s consumption needs. On the other hand, household food security is the year-round access to an adequate supply of nutritious and safe food to meet the

nutritional needs of all household members. The indicators of food security are food production, income, total expenditure, food expenditure, share of expenditure on food, calorie consumption and nutritional status.

According to the World Food Program (WFP), the average Kenyan family spends almost half of their household income on food which is an indicator of poverty and food insecurity (WFP, 2011). The Republic of Kenya (2011) reports that in Kenya, per capita food availability has declined by more than 10 per cent over the last decade. The Policy paper says that food availability and access in Kenya are influenced by the ability of individuals and households to produce their own food in sufficient quantity and to generate income to purchase food, the adequacy of infrastructure, effectiveness of food distribution systems and the affordability of food prices. Other factors include access to and control of productive resources (land, seed and water), governance, legal and regulatory frameworks, the macroeconomic environment, gender dynamics, HIV/AIDS and other diseases, emergencies and conflicts.

According to the African Development Bank (2007), women are more likely than men to be poor, and they are more vulnerable to adverse shocks. In Kenya 54 per cent of rural women and girls and 63 per cent of urban women and girls are estimated to live below the poverty line.

A similar finding was found by Obasi, (1999) in Nigeria that until recently, the general trend across the globe had been to relegate women in the scheme of things. In traditional societies, for example women had no value beyond child bearing and other domestic services. Their contribution to household food security and other spheres of community development attracted

inadequate recognition. This situation is still true of women in many contemporary societies particularly in the rural enclaves of developing world.

The accommodation of gender considerations is crucial for economic growth in countries with agriculture-dependent economies. Women play important roles as producers, managers of productive resources and income earners, and they are key providers of unpaid care work in rural households and communities. However, despite decades of efforts to address gender inequalities, many rural women continue to face gender-based constraints that limit their capacity to contribute to growth and take advantage of new opportunities arising from the changes shaping national economies. This has serious consequences for well-being – not only for women themselves, but also for their families and societies at large – and it represents one of the main reasons for the economic underperformance of agriculture in poorer countries. (FAO, 2012)

2.3 Influence of land ownership on womens’ participation in household food security programs

The accommodation of gender considerations is crucial for economic growth in countries with agriculture-dependent economies. Women play important roles as producers, managers of productive resources and income earners, and they are key providers of unpaid care work in rural households and communities. However, despite decades of efforts to address gender inequalities, many rural women continue to face gender-based constraints that limit their capacity to contribute to growth and take advantage of new opportunities arising from the changes shaping

national economies. This has serious consequences for well-being – not only for women themselves, but also for their families and societies at large – and it represents one of the main reasons for the economic underperformance of agriculture in poorer countries

According to the world inequality statistics (SID, 2015), Kenya was ranked 103 out of 169 countries making it the 66th most unequal country in the world. Kenya's Inequality is rooted in its history, politics, economics and social organization and manifests itself in the lack of access to services, resources, power, voice and agency. Inequality continues to be driven by various factors such as: social norms, behaviors and practices that fuel discrimination and obstruct access at the local level and/ or at the larger societal level; the fact that services are not reaching those who are most in need of them due to intentional or unintentional barriers; the governance, accountability, policy or legislative issues that do not favor equal opportunities for the disadvantaged; and economic forces i.e. the unequal control of productive assets by the different socio-economic groups.

In their study, Copeland and Guertin (2013) assert that women produce fifty per cent of the world's agricultural output, but own approximately two per cent of its land. It is true that food security cannot be achieved without women but they encounter many obstacles due to limited land rights which make it difficult for them to improve food security conditions for their families and their communities. FAO (2013) claims that women would produce 20 to 30 per cent more food than men if they had access to the same resources as men such as land. This has the potential of removing 100 to 150 million people from poverty and malnutrition. Therefore, to improve food security, there is need to ensure equal rights to land and property, women's

participation in the market place and improved education opportunities for women. The removal and amendment of discriminatory land and labour laws would also help women farmers and food producers, said De Schutter and ADB food security and agriculture specialist Lourdes Adriano, who provided technical support for the report.

Copeland and Guertin, (2013) also claims that the right to own, control and access land is fundamental to both food security and gender equality. Ownership, control and access to land can ensure that land is used to produce food for household consumption while the surplus can be sold to provide additional income that can be used to purchase food, or meet healthcare and other livelihood needs. Citing the World Bank, Copeland and Guertin (2013), state that property ownership for women increases their bargaining rights, improves family stability and bolsters household economies. Most international statutes and national constitutions protect gender equality, especially with regard to land and other property rights, as well as education and general food security but this does not always translate into practice due to traditions and social norms that regard men as the owners and custodians of family land.

Despite the economic gains that Ghana has made over the decade, poverty and household food insecurity remain a persistent and pressing social concern. An estimated millions of Ghanaian households experience food related hardships, most of them chronic (DWM, 1999). Most rural Ghanaian women have less access to economic and productive resources, and are generally discriminated against in personal and social relationships and all these combine to making their households more food insecure.

According to Kameri-Mbote, access to, control over and ownership of land is influenced by diverse factors which include gender, age and marital status. Land in Kenya is mainly controlled by male household heads on the assumption that they hold in trust the rights for all members of the household.

2.4 Influence of gender division of labour on womens' participation in household food security programs

The responsibility for providing care often falls disproportionately on women. As a result of their multiple responsibilities, women are often unable to spend sufficient time on food preparation, child feeding and other caring activities that have beneficial nutritional outcomes. Studies undertaken by the International Food Policy Research Institute (IFPRI) in Botswana, Ghana and Kenya (Brown and Haddad, 1994) and in Zambia (Kumar, 1994) pointed out that considering that children are valuable resources in terms of their contribution to productive activities, very little is invested in them in terms of direct care time. Time recorded in direct child care was generally less than one hour per day.

Women often face difficult choices in their time allocation decisions. Although caution is needed in generalizing about people's time allocation patterns and burdens, recent data from different African countries support the popularly held belief that women not only work longer hours than men but also spend more hours in productive activities per day than men. Data from the region of Mbeya in the United Republic of Tanzania, a largely agricultural area, revealed that women

worked 12 to 14 hours during the dry season and 14 to 17 hours during the wet season, without rest, whereas men worked eight to ten hours in the dry season and ten hours in the wet season, with a rest period of three to four hours (Mwalemba, 1995).

Seasonal constraints for household food security in agricultural and fishing communities often occur just before the harvest, when agricultural labour is at its peak, stocks from the previous year's harvest are nearly exhausted, and cash is running out. Shortages of food usually give rise to high market prices, which decline following the harvest. Women, who tend to perform a large proportion of the agricultural labour, have less time available for meal preparation and child care. The hungry season also frequently coincides with the rainy season, especially where the rains are confined to a single season and are accompanied by an increased incidence of infectious diseases, particularly diarrhoea, respiratory diseases and malaria. In combination, these factors often contribute to raised levels of malnutrition among vulnerable groups. In a study carried out in the Gambia it was observed that child morbidity and mortality tended to reach their peak in the pre-harvest period and that women whose last trimester of pregnancy coincided with this period tended to deliver babies whose birth weight was significantly lower than normal (Lawrence et al., 1989). The effects of low birth weight on children's capacity for survival and development.

In addition, they are now cultivating crops and taking on tasks traditionally undertaken by men, and the women are also increasingly making decisions on the daily management of farms and households. With few exceptions, women fulfill these multiple jobs with little or no access to productivity enhancing resources and services such as credits and health care. A study on credit

used in five technical assistance, found that women received less than 10 percent of the credit forwarded in male smallholders, and only 15 percent of the world's agricultural extension agents are women.

In rural areas women are often major producers and processors of family food; in urban areas women are involved in both the marketing and purchasing of food supplies, as well as in the "fast-food" sector of street food production and sales. In certain cities in Africa, as much as 90 percent of the street food trade is conducted by women. Urban women prepare and market street foods to augment their household income, to ensure domestic self-sufficiency and to improve the food security and welfare of their families.

Women's activities in the food chain influence their resource situation in two ways. On the one hand, food and cash are generated through these activities; on the other hand, the labour and time spent in the process are diverted from food preparation and child care activities. The necessity for many women to play a dual role in the household - in production (food production and income generation, for example) and in reproduction (activities related to nurturing and attending to basic family needs) - imposes immense pressure on women's time, labour and attitudes. Often the physical labour involved may be so heavy that it is detrimental to the woman's health, especially during pregnancy and lactation. In such households, nutrition insecurity will be reflected also in higher levels of stunting and wasting among infants and preschool children. This is particularly the case when access to basic necessities such as water and fuel wood for cooking involves carrying heavy loads and walking long distances every day.

2.5 Influence of level of education on womens' participation in household food security programs

Education is typically seen as a means of improving people's welfare. Studies indicate that inequality declines as the average level of educational attainment increases, with secondary education producing the greatest payoff, especially for women (Cornia and Court, 2001).

Women's education alone resulted in a 43 percent reduction in hunger from 1970 to 1995, while women living longer led to an additional 12 percent decline in hunger levels, according to the report by the U.N. Food and Agriculture Organization (FAO) and the Asian Development Bank (ADB).

There is considerable evidence that even in settings where people are deprived of other essential services like sanitation or clean water, children of educated mothers have much better prospects of survival than do the children of uneducated mothers. Education is therefore typically viewed as a powerful factor in leveling the field of opportunity as it provides individuals with the capacity to obtain a higher income and standard of living. By learning to read and write and acquiring technical or professional skills, people increase their chances of obtaining decent, better-paying jobs (KNBS & SID 2013).

Education however can also represent a medium through which the worst forms of social stratification and segmentation are created. Inequalities in quality and access to education often translate into differentials in employment, occupation, income, residence and social class. These disparities are prevalent and tend to be determined by socio-economic and family background.

Because such disparities are typically transmitted from generation to generation, access to educational and employment opportunities are to a certain degree inherited, with segments of the population systematically suffering exclusion. The importance of equal access to a well-functioning education system, particularly in relation to reducing inequalities, cannot be overemphasized.

Education is thought to influence the food security status of households. Educational attainment by the household head could lead to awareness of the possible advantages of modernizing agriculture by means of technological inputs; enable them to read instructions on fertilizer packs and diversification of household incomes which, in turn, would enhance households' food supply (Najafi, 2003). The education of women is known to produce powerful effects on nearly every dimension of development, from lowering fertility rates to raising productivity, to improving environmental management. Women are fully effective in contributing to food and nutrition security, discrimination against them must be eliminated and the value of their role promoted.

Many studies have revealed that the level of education helps the household head to use production information efficiently as a more educated person acquires more information he becomes a better producer (Hayami 1969, Lockheed et al. 1980, Phillips 1994, Wang et al. 1996, Yang 1997). The level of education is believed to influence the use of improved technology in agriculture and, hence, farm productivity. The level of education determines the level of opportunities available to improve livelihood strategies, enhance food security, and reduce the level of poverty. It affects the level of exposure to new ideas and managerial capacity in

production and the perception of the household members on how to adopt and integrate innovations into the household's survival strategies.

The Study conducted by the AWSC (2014) on women experiences on food security found that 11.9 per cent of the women respondents had never gone to school while a whopping 35.6 per cent had only primary school education. Since women in Kenya are the custodians of food security and nutrition at the household level, improving their education is the most important policy instrument Kenya can use to increase agricultural productivity, reduce poverty, and promote better health. According to Quisumbing (1996), one year of primary education provided to all Kenyan women farmers would boost farm yields by 24 per cent.

Lack of education is the main cause of poor agricultural productivity in Kenya. It is a known fact that education contributes significantly to sustained rural income growth since education increases the ability of farmers to allocate their resources more efficiently and know the nutritional value of the foods they consume. Furthermore, education will help the women to develop the skills needed to participate in knowledge intensive agriculture, adopt new technology and participate in marketing activities. Gender inequality and discrimination at the household level prevent women from getting education which, in turn, has a negative impact on their decision making, production and marketing skills and contributing even more to food inequality in their households (AWSC, 2014).

2.6 Influence of family headship on womens' participation in household food security programs

Nearly half of all female headed households are considered to be poor and the ADB (2007) contends that 42.2 per cent of female headed households were poor in 2005/2006 compared to 30 per cent male headed ones. According to IFPRI (2005) and reiterated by FAO (2011), this key role of women refers to a range of complex factors. Studies have shown that if women have a higher social and economic status within the household and community and, therefore, increased decision-making power, this will positively affect the well-being of all household members, but especially children's nutrition and health. Among the world's most food insecure groups including rural persons, especially small farmers, and the urban poor, women and girls face violations of their right to adequate food and nutrition at a 60:40 ratio relative to men and boys (United Nations Economic and Social Council [UN-ECOSOC], 2007) and comprise 70% of the global poor overall (De Schutter, 2011, 2012; Quisumbing & Smith, 2007; World Bank, Food and Agriculture Organization of the United Nations [FAO], & International Fund for Agricultural Development [IFAD], 2009).

With regard to the contribution of women to the agricultural sector in South Africa, according to Altman, Hart, and Jacobs (2009), they represent 61% of people involved in farming. Women are engaged to a greater extent than men in producing food for household consumption. However, women's access to resources, such as land, agricultural inputs, credit, extension, and other

services, is severely limited, due to social norms, as is observed elsewhere (FAO, 2011). Even when gender rights are formalized by laws, they typically conflict with traditional authority and customary law, resulting in gender-based disparities in property rights (IFPRI, 2005; United Nations (UN), 2010).

A rapid rural appraisal showed that in the Luapula Valley (Zambia), women tend to dominate subsistence farming activities and are therefore extremely important in maintaining the household food security in terms of staple foods. Men, on the other hand, are the main providers of cash income, from fishing, sawing, charcoal cutting, casual labour, etc. Income is vital to household food security, as cash is needed to purchase essentials such as salt, oil and relish foods that are not home produced or bartered. As men are the providers of income, their food preferences are paramount in determining what the family eats or does not eat. The women also generate some income, but considerably less than men, given their overriding responsibilities for subsistence agriculture. (FAO, 1992)

A wealth-ranking exercise showed that only the poor groups experience shortages of food during the year. The wealthier groups were seen to be able to secure their food needs throughout the year. Characteristics of the poor groups show clearly why they have difficulties: they have on average smaller farms; the number of people per household tends to be less, possibly indicating a shortage of labour; and very importantly, they have few if any alternative sources of income, in contrast to the wealthier groups which have invested capital and diversified their activities to include several sources of income. The poor groups also contained a high proportion of women-headed households and also elderly people, some of whom were responsible for the care of their

grandchildren. Women in the focus groups also ascribed poverty to social factors, such as men neglecting their families by not giving them sufficient income, by not helping with agricultural activities or because of drinking problems. The limiting constraint for poor households is labour, particularly of women, who are responsible for planting, weeding and harvesting. In women-headed households, women on their own have to undertake all the work including the land clearing and preparation. It is therefore not surprising that little or no time is left for other activities (Combs et al., 1996).

2.4 Theoretical Framework

Sen's (1981) entitlement theory forms the conceptual basis of approach of assessing food security. Sen introduced the idea of food security as a demand concern, where it is viewed in terms of entitlements, which influence capacity to access food. The 'entitlement approach' is made up of three elements. The first one being the endowment set. This is basically a combination of all the resources a person owns, conforming to established norms and practices. The second element is the 'Entitlement Set'. This is the set of all possible combinations of goods and services that a person can legally obtain by using resources from his endowment set. The third element is entitlement mapping (Nayak, 2000; Sen, 1981).

The framework provides a systematic approach to the definition and assessment of vulnerability. An individual's entitlement is rooted in his/her endowment –the initial resource bundle-which is transformed via production and trade into food or commodities which can be exchanged for food. If the entitlement set does not include a commodity bundle with an adequate amount of food, the person must go hungry. In Sen's terminology the individual has suffered an entitlement

failure. In a private ownership market economy, entitlement relations of individuals and determined by what they own, what they produce, what they can trade, and what they inherit or are given.

Sen's analysis has been extended in subsequent writing in at least five ways. First, the original analysis omits all nonlegal transfers of resources and hence the role of violence and social disorder leading to entitlement collapse. Secondly, the analysis is household centred. This means not only that the unequal distribution of food among household members receive no attention, but also the nonmarket rights and obligations of the household are neglected, because of a failure to embed the entitlement relations of the household into the social and political fabric of the wider community. Thirdly, because death is presumed to derive from inadequate food consumption, the role of diseases in determining famine mortality is not addressed. Fourthly, no attention is given the significance of cultural preferences and tastes in determining voluntary under-consumption when entitlement is adequate. Finally the original entitlement framework has no temporal dimension. Consequently; the analysis is a historical and cannot account for changing vulnerability and failure (Frankenberger and Maxwell, 1992).

The traditional approach to famines is 'Food Availability Decline' (FAD) , “a sudden, sharp reduction in the food supply in any particular geographic locale has usually resulted in widespread hunger and famine” (Brown and Eckholm, 1974: 25). Sen's 'entitlement approach' contrasts with the food availability approach. Sen see's famine as more of an 'entitlement failure' or in other words that one has an “entitlement set which does not contain enough food to enable one to avoid starvation in the absence of non-entitlement transfers, such as charity.” (Nayak,

2000). Sen applies his approach to three famines: The Great Bengal Famine of 1943, the Ethiopian famine of 1973 in the region of Wollo and the Bangladesh famine of 1974. Using the Sen's entitlement framework, he demonstrated that a decline in food availability was neither necessary nor sufficient to create hunger. He showed that famine could occur in the absence of any change in production. If the value of peoples production and work activities declined relative to the cost of staple food

Sen recognized four limitations of the entitlement approach, each of which he mentions. First, there can be ambiguities in the specification of entitlements. Second, while entitlement relations concentrate on Rights within the given legal structure in that society, some transfers involve violations of these rights, such as looting or brigandage. Third, people's actual food consumption may fall below their entitlements for a variety of other reasons, such as ignorance, food habits, or apathy. Finally, the entitlement approach focuses on starvation, which has to be distinguished from famine mortality, since many of the famine deaths—In some case most of them—are caused by epidemics (Sen, 1981).

2.5 Conceptual Framework

The concept is useful in analysis as its specifically geared towards addressing household food security in Bomet central sub county. Miles and Huberman (1994) and Huberman and Miles (2001) say that a conceptual framework explains either graphically or in narrative form, the main

dimensions of a study-the key factors, constructs or variables-and the presumed relationship between them.

Using the Sen's concept model, this can be represented as;

$Y = f(x)i$, where Y is dependent variable

x is independent variable

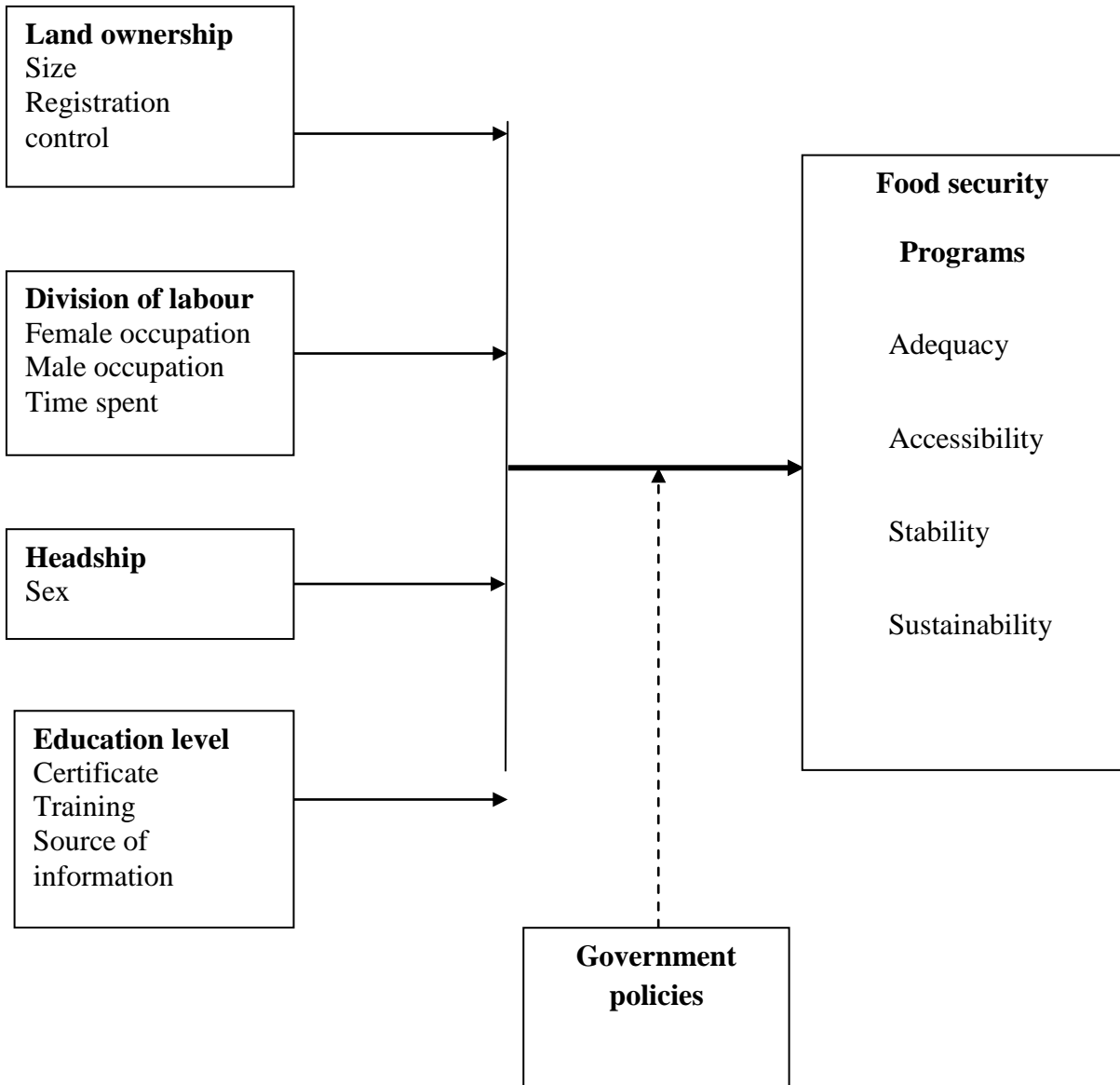
i is the influence of extraneous variable

Independent variables are; Level of Education, gender division of labour, land ownership and headship of household factors. These are factors that seem to have a huge effect on food security on households in Bomet Central Sub County, Bomet County. Other independent variable which is the Moderating variable is government policy, this affects the ability of the communities to enhance food security. Food security is the dependent variable which is determined by the independent variables.

Figure 2.1: Conceptual framework table showing relationship between variables

Independent Variable (X)

Dependent variable (Y)



Moderating Variable

2.7 Summary of literature review

The chapter has explored and focused on what researchers, scholars found out about food security with the women role in household being the main focus of concern. Social cultural factors were examined as the key issues in households that influence food security. In order to be food secure, adequate supply, access, stability and sustainability to food on individual, household or population levels must be met at all times. Since women play a vital role in ensuring that there is food security in the family, they should be the focus of concern to alleviating food insecurity prevalent in most parts of the world. Achieving greater food security is a noble goal and many would argue as a basic human right. It is also squarely in the self interest of the government because food security causes ill health, unrest and instability which in turn affects national development and security.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter discusses the research methodology that will be used in this study and provides a general framework for this research. The chapter presents details of the research design, target population, sample size and sampling procedure, data collection tools, piloting of instruments, validity and reliability of instruments, data collection procedures, data analysis Techniques and ethical considerations while conducting the study.

3.2 Research Design

According to Kothari (2004), research design is a conceptual structure for the collection, measurement and analysis of data in a manner that aims to combine relevance to research purpose with a keen interest on procedure. This research study used descriptive survey which is a method of collecting information by interviewing and administering questionnaire to a sample of individuals.

In the views of Trong and Kombo, 2003, a descriptive survey design is found suitable with studies that are quantitative and geared towards describing things as they exist. This research design is appropriate due to its safeguard against bias and its ability to maximize reliability and concern for economic completion of research study. The study used primary data questionnaires, oral interviews from respondents on their opinion, preferences, feelings, judgments and attitudes to describe the factors that influence household food security among women in rural households in Bomet Central Sub County.

3.3 Target Population

The target population refers to the population which is accessible and to which a researcher wants to generalize the results of the study (Mugenda and Mugenda, 1999) .The target population of this study were the accessible rural households of Bomet Central Sub County. According to Kenya Bureau of statistics population Census 2009, the sub county has a total population of 23,572 households spread across 5 wards

3.4 Sample size and sample selection

3.4.1 Sample size

According to Kothari, 2003 a sample size refers to a subset of target population.

Yamane Taro's (1967) provides a simplified formula for sample sizes

$$n = N/[1+N (e^2)]$$

Where n is sample size and N is the population and e is the error margin,

thus,

$$n = 23572 / (1 + 23572(0.08)^2)$$

$$n = 156 \text{ households}$$

In the study, therefore, the researcher used a sample of 156 households of the target population

3.4.2 Sampling Procedure

This describes the techniques the researcher used in order to select items from target population which depict several features of the population (Okombo and Orodho, 1999). This study used stratified and systematic random sampling which involved drawing every nth household in the population starting with a randomly chosen household in each of the villages in the five wards. The respondents will be the head of the household or any available adult.

3.5 Data collection instruments

Data collection instruments refers to the tools that the researcher develops in order to collect data from the respondents, (Okombo and Orodho,2002).Given the fact that these study was quantitative in nature and targeting a wide population spread geographically in the five wards of Bomet Central Sub County ,the researcher developed questionnaires as the main data collection instrument, questionnaire is the best data collection instruments used by social scientists in obtaining maximum information for descriptive studies,(Kothari,2005).

In the study the researcher developed a questionnaire containing varied questions with most items being close ended whereas a few was open-ended, closed, contingency and matrix items. The choice of these items was to ensure that both quantitative and qualitative data were obtained.

3.5.1 Instruments piloting

This is a preliminary study conducted in order to establish the effectiveness of data collection instruments (Mugenda and Mugenda, 2003, 1999).A pretest sample should be between 1 percent

and 10 percent for the studies sample size (Gay in Mugenda, 2003).In this study the researcher used a pretest sample size of 7 percent of sample which was 10 respondents.

3.5.2 Instruments Validity

According to Trump and Kombo, 2000, validity is a measure of what one purports to measure. It is the extent to which a measuring instrument yields the desired outcome (Kothari, 2005).In this study the researcher sought to ascertain instruments validity through adequate coverage of the research objectives. Moreover instrument validity was also assured through peer review and expert judgment.

3.5.3 Instruments reliability

Reliability is a measure of the degree to which instruments yield consistent results of data after repeated trials. According to Kothari 2005, a valid instrument is that which gives consistent results with repeated trials. In the views of Mugenda and Mugenda 2003, a valid instrument yields consistent results when repeated severally, or every time it is taken. In addition reliability in research is influenced by random error, (Mugenda and Mugenda, 2003).Random error is the deviation from true measurement due to the factors that has not been effectively addressed by the researcher. Errors may arise from inaccurate coding, ambiguous instructions to the subjects, interviewers bias, interviewee fatigue etc.

In this study the researcher ascertained instruments reliability using split half reliability methods. This was done by dividing data collection instruments into two equal parts on the basis of odd and even numbers appearances. By administering even items to the respondents and

measurements taken, odd items was subsequently administered to the same respondents and measurements taken. Using Pearson's product moment of correlation coefficient(r), the two scores was compared and obtained an r of 0.65 .This indicated that the instrument was reliable.

3.6 Procedure of data collection

According to Wiseman, 1980, data collection procedure describes the steps in sequential order undertaken in the process of data collection. In this study, the researcher developed a research proposal and presented it for assessment and effected the necessary corrections. Subsequently, the researcher applied for a research permit from the national council of science and technology upon which the permit was presented to the relevant authority seeking for permission to collect data. The researcher then dispatched well trained research assistants to self administer the questionnaire to the respondents in batches of 20 copies per day until all the copies were administered.

3.7 Methods of data analysis

Data analysis involves data editing, cleaning, data organization and data verification, before subjecting the information to statistical measures, (Jaguan, 2006).Owing to the fact that these are descriptive in its major characteristics, descriptive statistics and correlation analysis was applied in data analysis. Such statistical measures include frequencies and percentages and the data analyzed is presented using frequency distribution tables.

3.8 Ethical considerations

In the views of Donald, 2008, ethics refer to the degree of conduct, that a researcher is expected to observe in order to undertake a credible study. In this study the researcher observed all ethical issues in research ranging from plagiarism to the relationship with the respondents. These ethical aspects of concern include explicit citations of any scholarly work; both in the text and references, besides, the researcher ensured data was not forged. Data was collected from respondents through authority of relevant personnel; no data was collected from any minor. Also no bodily harm or psychological torture on any respondent was tolerated. Respondents were not enticed to give information through favours and financial rewards, nobody was forced to give information and any information obtained was treated with confidentiality

3.1 Operationalization of variables Table

Independent Variable	Indicator	Measurement	Measure ment scale	Research design	data collection method	Type of analysis
Household head	Gender Age	Number of years lived Highest level of education attained	Nominal and ordinal	Descriptive survey	Questionnaire and interview schedules	Descriptive Tables Chi square test Table
Gender division of labour	Planting Weeding Harvesting Laundry Cooking Child care	Hours Income	Ordinal	Descriptive survey	Questionnaire and interview schedules	Descriptive Tables Chi square test Table
Land ownership	Title deed Renting Control	Title Months Size	Interval Ordinal	Descriptive survey	Questionnaire and interview schedules	Descriptive Tables Chi square test Table
Education	Level attained Training Skills attitude	Certificate Source of information	Ordinal nominal	Descriptive survey	Questionnaire and interview schedules	Descriptive Tables Chi square test Table
Food Security	Adequate Access Stable Sustainable	Quantity Months Affordability Prices	Ordinal interval	Descriptive Survey	Questionnaire and interview schedules	Descriptive Tables Chi square test Table

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION, INTERPRETATION AND DISCUSSION

4.1 Introduction

The purpose of this chapter was to analyze, present, interpret and discuss data in order to answer the research questions. Data collection tools were questionnaires which had open ended and closed ended questions and interview schedules. This chapter looks at questionnaire response rate, demographic characteristics of the respondents. The variables under area of study included: how land ownership and decision making influence women's participation in food security programs of households, how gender division of labour influence women's participation in food security programs of households, how headship of households influence women's participation in food security programs of households and to what extent do level of education influence women's participation in food security programs of households. Data analysis was to determine to what extent the variables can influence and affect women's participation in food security programs in Bomet County is represented in form of tables and percentages.

4.2 Questionnaire Response Rate

The researcher hired research assistants who administered the questionnaires to those who were unable to do it on their own. From the 156 respondents, 150 which represented 96% returned the findings. According to Mugenda and Mugenda (2006), a 10% of the target population questionnaire response rate gives the researcher a more highly rated finding to carry out.

4.3 Demographic Characteristics of Respondents

This section discusses the demographic characteristics of respondents; marital status, age, level of education and occupation. The study looked at the demographic characteristics which was important because the study wanted to analyze the respondent's equal representation in this study and to give objective findings which are accurate and to eliminate bias. Also level of education was done to determine the ability of respondents to answer the questions as they were self administered. The study investigated the influence of social cultural factors on women's participation on food security programs which affects all the age brackets and occupation.

4.3.1 Age of the Respondents

The study found it necessary to understand the age distribution of the respondents. This was important as it gave the data for analysis of age schemes and to find out if age influenced availability, accessibility and utilization of food in the household. The respondents were asked to state their age bracket and the results were presented in Table 4.1

Table 4.1: Age of the respondents

Age	Frequency	Percent
20 - 30 years	33	21.8
31 - 40 years	54	35.3
41 - 50 years	31	21.2
Above 50 years	32	21.8
Total	150	100.0

Table 4.1 shows the age of respondents ranging from 20 to above 50 years. Most of the respondent's age were 31-40 years constituting 55 (35.3%), 20-30 and above 50years constituted 34 (21.8%) while 41-50 years accounted for 33(21.2%). A Chi square test for

independence however, at 0.05% level of significance and 2 degrees of freedom showed that accessibility of food was dependent on age.

4.3.2 Marital Status of the respondents

The purpose of the study was to focus its study on the households. The marital status was a critical factor on the findings of the research project. The results are as tabulated below in table 4.2

Table 4.2 marital status

Marital status	Frequency	Percent
Single	30	20.5
Married	111	73.1
Separated	5	3.8
Divorced	4	2.6
Total	150	100.0

4.3.3 Education level

The researcher also investigated the Education levels of the respondents. This was of significant importance as it gave the researcher easier time in answering items in the questionnaire and also of importance in understanding the purpose of research. The results are as below in table 4.3

Table 4.3. Education level

Level	Frequency	Percent
None	9	6.4
Primary/Adult literacy	61	39.1
Secondary	50	34.0
Post Secondary	30	20.5
Total	150	100.0

From the results it can be seen that a huge number of respondents had primary education accounting for 61(39.1%) while those with secondary education account for 53 (34%) post secondary 20.5% and those with no education were 6.4%.Studies indicate that inequality declines as the average level of educational attainment increases, with secondary education producing the greatest payoff, especially for women (Cornia and Court, 2001). According to United Nations report (2005), basic education is important as can enable one to read and understand the world around him. Education is therefore typically viewed as a powerful factor in leveling the field of opportunity as it provides individuals with the capacity to obtain a higher income and standard of living. By learning to read and write and acquiring technical or professional skills, people increase their chances of obtaining decent, better-paying jobs (KNBS & SID 2013).

4. 3.4 Occupation of the respondents

The study found it necessary to understand the occupation of the respondents. This was important as it gave the data for analysis of occupation of household heads. The findings are as below in table 4.4

Table 4.4: Occupation

Occupation	Frequency	Percent
Farming	129	86.5
Not farming	21	13.5
Total	150	100.0

The study shows that most of the respondents earn their living in agriculture. This corroborates the findings that 80% of Kenyans earn their livelihood in farming (Fao,2002)

4.4 Land ownership and Decision Control

The research questions under this objective were to investigate how ownership of land and decision making on its use influence women's participation in food security programs. A number of questions were asked on the type of land ownership, registration, and utilization of the land and control of the decision pertaining the land resource obtained. This was important because it enabled the study to collect relevant and enough information adequate for data analysis and giving recommendations

4.4.1 Type of Land ownership

The study sought to establish the influence of type of land ownership on women's participation on food security programs. The research questions asked the respondents to state the type of land ownership they had and the response was captured in table 4.5

Table 4.5: Land ownership

Ownership	Frequency	Percent
Inherited land	106	69.2
Purchased land	42	29.5
Hired	2	1.3
Total	150	100.0

From the table out of 156 respondents 69.2% were living in inherited land while 29.5 % purchased their land while 1.3% hired the land they used. Absolute and full control of the land is

a necessary precondition on determining the use of the land. In the case of women, land rights are central to their participation in food security programs.

4.4.2 Land registration

The research question also sought to determine the ownership of the land. This element of the questionnaire was important as one had to proof ownership and this gave one security on the utilization of the land. The findings were presented in table 4.6

Table 4.6 land registration

Registered	Frequency	Percent
Yes	109	72.4
No	41	27.6
Total	150	100.0

From the table, a high percentage of the respondents had their land registered. This finding was significant as the respondents can fully utilize the land and can be able to give as security to get financial services to improve on their farm.

4.4.3 Land utilization and decision making

The researcher sought to gauge the level of decision making on the utilization and use of land. Of particular importance is the participation of the household heads which gave the indication of who has more power in determining the usage, disposal and land rights. The findings were captured in table 4.7

Table 4.7 Decision making

Decision maker	Frequency	Percent
Myself	80	51.3
My spouse	16	11.5
Both spouse and I	28	19.2
Relative	26	17.9
Total	150	100.0

The most vital experience in life is the ability to make right decisions. It was revealed in the table 4.7 above that 51.3% makes their own decisions, 11% had their spouses make decisions, 19.2% shows that both of them decides and 17.9% waits on relatives to decide. It was then depicted that the households which is being headed by the father 44.9% had them making decisions, while 10.3% allowed their spouse to decide, 17.9% had both decides and 15.4% had their relatives decides as tabulated in table 4.8 below.

Table 4.8: Headship and decision making

Headship	Myself	My spouse	Both spouse and I	Relative	Total
Male	44.9%	10.3%	17.9%	15.4%	88.5%
Female	9.0%	0%	0%	2.5%	11.5%
Total					100.0%

This shows that women have little influence in decision making process in households. Moreover, according to DWM, 1999, most women have less access to economic and productive resources, and are generally discriminated against in personal and social relationships and all these combine to making their households more food insecure. According to the AfDB, Kenya's

agricultural production is challenged by several factors, including women’s high workloads and low rates of participation in decision making processes (AfDB, 2007).

4.5 Division of labour

Gender Division of labour refers to beliefs which define the kinds of work that men and women can do or should do in terms of supposedly essential differences between them. It means an overall societal pattern where women are allotted one set of gender roles, and men allotted another set. In the research thematic area women being the main focus, comparison between male and female headed households are shown below in table 4.9

Table 4.9: Headship and hours worked

Head	Hours worked at farm				Total
	1-3 hrs	4 - 6 hrs	7 - 9 hrs	Over 10 hrs	
Male	8.3%	38.5%	39.7%	1.9%	88.5%
Female	1.3%	5.1%	3.8%	1.3%	11.5%
Total	9.6%	43.6%	43.6%	3.2%	100.0%

The researcher sought to know the length of hours worked when the father or the mother is heading the family. It was shown that 8.3% worked for 1-3 hours, 38.5% worked for 4-6 hours, 39.7% worked for 7-9 hours while lesser percentage of 1.9% worked for over 10 hours when the father is heading the family. In female headed households 1.3% worked for 1-3hours,5.1% worked for 4-6 hours,3.8% worked for 7-9 hours, while a paltry 1.3% worked for over 10 hours.

Table 4.10: Hours worked

Hours worked	Frequency	Percent
1-3 hours	15	9.6
4 - 6 hours	68	43.6
7 - 9 hours	68	43.6
Over 10 hours	5	3.2
Total	156	100.0

From the table it was revealed that most of the respondents worked for 4-6 hours and 7-9 hours accounting for 43.6%.

4.6 Education level of household head

The research questions under this was geared towards establishing how level of education will influence women's participation in food security programs. A number of questions were asked which included training on farming and the source of information in addition to level they attained in their formal schooling. Respondents were also asked whether this had significant impact on improving their farm production. This was important because it enabled the study to collect relevant and enough information adequate for data analysis and giving reliable recommendations.

4.6.1 Education level

Table 4.11: Education level of household heads

	None	Primary/Adult literacy	Secondary	Post Secondary	Total
Father	7.2%	35.5%	35.5%	21.8%	100%
Mother	0.0%	66%	22%	11.1%	100%

It was found that 7.2% have no education at all in male headed households compared with none in female headed households. While 35.5% of male headed households had attained primary/adult literacy compared with 66.7% of female headed households. A higher percentage of 35.5% compared to 22.2% and 21.7% compared to 11.1% had secondary and post secondary education in male headed and female headed households respectively. Education is one of the most critical components required in daily decision making process and is a tool of progress and can enhance equality amongst the unequal. This has the potential of lifting up masses out of poverty. Female headed households have relatively higher percentages in lower levels of education compared to male headed households which attained a higher level of education.

4.6.1. Training on farming

The researcher sought to find out if the respondents have undergone any training on farming .This was important as it will be correlated against their food security in their households.

Table 4.12: Headship and training on farming

		Education level of the respondent				Total
		None	Primary/Adult literacy	Secondary	Post Secondary	
Training on farming	Yes	6	37	31	30	104
	No	4	26	20	2	50
Total		10	61	53	32	156

From the table the highest number of those who attended training farming were high among those with post secondary qualifications compared with the sample results of those primary and secondary education. This shows that a person with higher education will seek for opportunities to add to his learning.

Lack of education is the main cause of poor agricultural productivity in Kenya. It is a known fact that education contributes significantly to sustained rural income growth since education increases the ability of farmers to allocate their resources more efficiently and know the nutritional value of the foods they consume. Furthermore, education will help the women to develop the skills needed to participate in knowledge intensive agriculture, adopt new technology and participate in marketing activities (AWSC,2014).

Food security programs will thus be affected as more resources are needed to train one with lower education level. Education is typically seen as a means of improving people's welfare. Studies indicate that inequality declines as the average level of educational attainment increases,

with secondary education producing the greatest payoff, especially for women (Cornia and Court, 2001).

Women’s education alone resulted in a 43 percent reduction in hunger from 1970 to 1995, while women living longer led to an additional 12 percent decline in hunger levels, according to the report by the U.N. Food and Agriculture Organization (FAO) and the Asian Development Bank (ADB).

4.6.2 Sources of information

In the field of education continuous learning is of vital importance in enhancing ones skills. In the research study questionnaires asked on whether the respondents had attended further training and, in addition whether they sought further information crucial in their day to day work. This was correlated to their formal levels of schooling. The findings were tabulated as below in 4.12

Table 4.13: sources of information and Education level

Source of information on farming	Education level of the respondent				Total
	None	Primary/Adult literacy	Secondary	Post Secondary	
Radio	2.6%	15.4%	12.2%	3.8%	34.0%
Television	0.0%	2.6%	1.9%	1.3%	5.8%
Book/Journals	0.0%	3.2%	3.8%	1.3%	8.3%
Agricultural officer	2.6%	10.3%	5.8%	7.7%	26.3%
Field day/Shows	1.3%	7.7%	10.3%	6.4%	25.6%
Total	6.4%	39.1%	34.0%	20.5%	100.0%

From the findings its evident that more respondents who attained primary schooling listened to the radio and used agricultural officers to improve on farming skills. A higher percentage of respondents who attained secondary education attended shows and listened to the radio. Those who had post secondary favoured agricultural officers and field day/ shows. In our earlier

findings most women heads of households had primary education and therefore their source of information is the radio and agricultural officers. More food security programs should therefore be aired in the radio and agricultural officers used to improve on their farming skills.

4.7 Headship and food security

The research study sought to find out if the headship influenced food security. The household heads were asked if their households had experienced food shortages in the last 12 months .In addition questions which required the respondent to give the stability, accessibility and affordability of food were asked .The results were was envisaged to give an indication if households have had food insecurity

4.7.1 Food shortage

The study primary concern was to investigate the aspect of food insecurity. The questionnaire was designed to ask respondents whether they had lacked food in the last 12 months the responses were captured in table 4.13.

Table 4.14: Food shortage

Response	Frequency	Percent
Yes	124	82.1
No	26	17.9
Total	150	100.0

From the table with the given sample most households have experienced food shortages which accounted for 82.2%. However it was noted that this was a season where maize as the staple food crop was affected by a viral disease which reduced the harvest significantly.

4.7.2 Headship of household and food security

The head of the family plays a significant role in ensuring family stability and in the general organization of the household work. In the research data of household heads are correlated against the food shortages. The results are presented in table 4.14

Table 4.15: Household head and food shortage

	Has the household experience food shortage over the past?		Total
	Yes	No	
Male	82.4%	17.5%	100.0%
Female	88.9%	11.1%	100.0%
Total			100.0%

From the findings more of the sampled female headed households experienced food shortages as compared to male households in which 88.9% of the sample have experienced food deficiency

4.7.3 Food security

The researcher sought to find out if the households had difficulty in obtaining ,had ability to buy and whether they always had enough to food to eat The respondents were therefore asked how many times they had meals in a day.

Table 4.16 Household food security

Item	Head of household	Response			Total
		Never	Sometimes	Often	
Eat fewer meals in a day due to not enough food	Male	28	75	29	132
	Female	2	10	6	18
Eat smaller meals in a day due to lack of resources to obtain enough	Male	35	74	23	132
	Female	0	10	8	18
Experience lack due to lack of resources to go around to buy	Male	53	61	18	132
	Female	4	6	8	18
Goes to slept hungry due to lack of food	Male	82	33	17	132
	Female	12	0	6	18
Total					150

From the tabulation in the frequency table 4.16 it is evident that both male and female headed households suffer mild and chronic food inadequacy. Though a lesser percentage often had fewer and smaller meals, it's noteworthy that households have serious forms of food insecurity. In the course of the research most household heads acknowledged the fact that food shortage was becoming a looming danger. The resources that can be used also to buy food was becoming a challenge as most of the households had spent resources in education for their children and have not secured employment. They also did depend on the family for upkeep while looking for employment opportunities. This further strained their already fragile state of resources. From the research findings 14% of male headed households and female headed returned a staggering percentage of 44% who often lack the resources to buy food.

Though the area is particularly rich in agricultural resources with consistent rains other factors are coming into play like family sizes, shrinking land sizes, poor land use, low quality and expensive agricultural inputs and high cost of living which also has impact on household food security.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter provides a summary, conclusion and recommendations, contribution to the body of knowledge and suggested areas for further research in the following sub themes.

5.2 Summaries of findings

Based on the data and other information obtained and analyzed to answer the research questions of the study, a number of research findings were presented in chapter four. The findings are summarized in this section

5.2.1 Demographic characteristics of respondents

The study showed that influence of gender had significant negative influence on food security because women are crucial in the translation of the products of a vibrant agriculture sector into food and nutritional security for their households. Women play a triple role in agricultural households: productive, reproductive, and social. The productive role performed by both men and women, focuses on economic activities; the reproductive role, almost exclusively done by women, includes child bearing and rearing; household maintenance, including cooking, fetching water, and fuel wood; and the social role or community building, often dominated by women, which includes arranging funerals, weddings, and social events. If sustainable agricultural development is to be translated into food and nutrition security, then the active engagement of

women is absolutely necessary. Their involvement will require that development agents go beyond traditional approaches to sustainable agricultural development.

A further study showed that age had significant influence on food security in the area of study. The results analyzed showed an even distribution among households in the sample age brackets. A Chi square test for dependence of 2 degrees of freedom and alpha value of 0.05 shows that accessibility of food depended on level education. This was probably because a high number of persons of ages 20-30 is significantly high in Kenya therefore this inhibits access to food. It was found out that the majority of households were farmers and they influenced food security.

5.2.2 Land ownership and decision control and food security

Land forms the basis of all agricultural activities. In the research findings most women had little ownership and control of their land. However, the asymmetries in ownership of, access to, and control of livelihood assets (such as land, water, energy, credit, knowledge, and labor) negatively affect women's food production. Women are less likely to own land and usually enjoy only use rights, mediated through a man relative. In the study ownership of the land was in the hands of their male relatives, with less than 7% of the female households having land titles. In decision making the research study has shown that males account for 44.% in households decision makers with a few consulting their spouses and 10% had their spouses given chances to make decisions.

Studies cited in Deere and Doss (2006) indicate that women held land in only 10 percent of Ghanaian households while men held land in 16–23 percent in Ghana; women are 5 percent of registered landholders in Kenya, 22.4 percent in the Mexican ejidos (communal farming lands), and 15.5 percent in Nicaragua. On average, men's land holdings were almost three times the

women's land holdings. This compromised land access leads women to make suboptimal decisions with regard to crop choices and to obtain lower yields than would otherwise be possible if household resources were allocated efficiently.

5.2.3 Gender division of labour

Women are crucial in the translation of the products of a vibrant agriculture sector into food and nutritional security for their households. They are often the farmers who cultivate food crops and produce commercial crops alongside the men in their households as a source of income. The study has shown that most women are farmers and do most of the work which included planting, weeding, harvesting, milking, watering animals, herding and plucking tea.

5.2.4 Education level of the household head

Two thirds of the one billion illiterate in the world are women and girls. Available figures show that only 5 per cent of extension services has been addressed to rural women, while no more than 15 per cent of the world's extension agents are women.

The study found out that most female household heads had primary education accounting to 67% and relied on the radio and agricultural officers to enhance their agricultural knowledge. Further training had a positive translation into household food security and therefore the study has shown that more female household have difficulty in getting income to supplement their dietary needs.

Women are crucial in the translation of the products of a vibrant agriculture sector into food and nutritional security for their households. They are often the farmers who cultivate food crops and produce commercial crops alongside the men in their households as a source of income. When women have an income, substantial evidence indicates that the income is more likely to be spent

on food and children's needs. Women are generally responsible for food selection and preparation and for the care and feeding of children. Women are the key to food security for their households (Quisumbing and others 1995).

Agricultural technology transfer capacity development is one of the prime policy levers to increase agricultural productivity. But often women are not targeted because it is assumed that their husbands or fathers will share the knowledge with them, and often they are supplied with technologies that do not meet their needs.

5.2.5 Household Headship and food security

The findings in the study indicated that 89% of female headed households have experienced food shortages in the last 12 months compared with the male headed with a lower percentage of 82%. The results further shown by the level of work they do as household heads leaves them with no time to rest. The pain of trying to look for enough food for the family clearly causes emotional, psychological and physical strain. This not only worsens their health, but also that of the dependants.

5.3 Conclusions on the findings

In the study it was established that the key challenge facing women is accessibility to land and their limited rights to use, as most decision were being made by their spouses in the case of male headed households. The causes of women's exclusion from decision-making processes are closely linked to their additional reproductive roles and their household workload, which account for an important share of their time.

Secondly the level of education is a critical factor for women in their roles in food security. In the study women heads of household did more work compared to their males. This correlates to other findings of earlier researches on gender division of labour. With more education, males and females should play interactive roles and discard the cultures which gives males absolute decision making on the work to do. Significant to household food security is shared responsibility where both genders participate in and out of farm activities.

Female headed households with lower education as shown had experienced food shortages and are more prone to food insecurity compared with those of males. This significant finding has shown that education level has a positive correlation with food security with chi-square test at 95% confidence level. In addition a more educated person will further enhance the skills needed in farming by accessing diverse sources of information.

The head of the family is also central in the pillars of food security. More male headed households were found to be more food secure. This factor may be linked to the fact that since men owns the land and have a title they are able to get financial credit and utilize the proceeds for buying agricultural inputs, use machines and employ additional labour. This has the multiplier effects in promoting income stability and food security. In addition security of land will bring trust on the owner who can be able to rent part of the idle land to other parties for use and this can bring additional income to use in securing food supplies.

In food security in households stability is crucial. In the study 82% of households have experienced food shortages in the past 12 months notwithstanding the headship of the household. Stable and sustainable food security is important in family stability. Overreliance on single food and cash crop have mostly caused the problem at hand. This is attributed to maize which had

returned meager quantities and tea payments which are shrinking as compared to needs and growing family sizes. The study showed that social cultural factors has had great influence on food security the result of the analysis were significant in relation to the head of the household, female-headed Households are more vulnerable to food insecurity in Bomet county.

5.4. Recommendations

Factors that influence food security have been demonstrated. Trends examined on the basis of the findings, a number of practical and policy recommendations are made in this section on how these factors should address food security within the households. These are described below;

5.4.1. Land ownership and decision making

In the shared findings of the study women have little access to land ownership and limited role in decision making in Bomet County. This results show that even where there is a good agricultural and food policies and programs in place, women's participation would be limited by this factors. The challenge for the future will be to pursue a concrete attainment of equity in access to resources by women to produce food, and purchasing power to buy food where it is not produced there enhancing their potential to generate food security.

Specific policy measures are required to address the constraints facing women farmers and special consideration given to the needs of female heads of households. More important, household productivity in agriculture and food supplies could often be increased at no extra cost by reallocating existing resources inside the household toward women. Given the traditionally limited role of women in decision-making processes at the household, village and national levels in most cultures, their needs, interests and constraints are often not reflected in policymaking

processes and laws which are important for poverty reduction, food security and environmental sustainability should be reversed.

5.4.2 Gender division of labour

The study has also shown that women as household heads have bigger responsibility in bringing family stability and providing food. It was noted that most women heads cannot be able to attend agricultural field days, or watch television but mostly listen to the radio because they have little or no time to rest. It is recommended that policies aimed at empowering women's food and nutrition security is co-designed, co-implemented, co-monitored, and co-evaluated by women, and where there are recourse and remedy options to address and overcome the barriers to women's human rights and bodily integrity. Male heads should also be sensitized on the rights of women to equality as enshrined in the constitution and the importance of shared work ethics in the family settings.

5.4.3. Education level of household heads

The study found out that education level had direct influence on ones participation in food security programs. More of the household heads with higher education participated actively in seeking to enhance their agricultural knowledge. Agricultural and food security Programs aired through the radio should be at appropriate times when the listeners are at home. This has the potential of boosting productivity among households.

Evidence shows If women farmers in Kenya had the same access to farm inputs, education, and experience as their men counterparts, their yields for maize, beans, and cowpeas could increase

as much as 22 percent (Quisumbing 1996). This would have resulted in a one-time doubling of Kenya's GDP growth rate in 2004 from 4.3 percent to 8.3 percent (World Bank 2007a).

5.4.4. Household heads and food security

In this study results pointed to female headed families as being food insecure coupled with low levels of education has negative influence on food security. The level of education of household head determines the level of opportunities available to improve livelihood strategies, enhance food security, and reduce the level of poverty. It affects the level of exposure to new ideas and managerial capacity in production and the perception of the household members on how to adopt and integrate innovations into the household's survival strategies.

Agricultural and food management should be made a policy in Bomet county in order to equip more household heads with upto date knowledge on food chain value management. This can give female heads a head start in managing risks associated with food and be able to mitigate on such issues. Women should also be involved in the planning and implementation of various projects that have an impact on their lives.

5.5 Contribution to the body of knowledge

Objective	Contributions
To assess the influence of land ownership on women's participation in households food security programs in Bomet County.	In the shared findings of the study ,women have little access to land ownership and limited role in decision making in Bomet county. This results show that even where there is a good agricultural and food policies and programs in

place, women's participation would be limited by this factors. Specific policy measures are required to address the constraints facing women farmers and special consideration given to the needs of female heads of households.

To analyze how gender division of labour influence women's participation on household food security programs on in Bomet County.

The study has also shown that women as household heads have bigger responsibility in bringing family stability and providing food. It was noted that most women heads cannot be able to attend agricultural field days, or watch television but mostly listen to the radio because they have little or no time to rest. Male heads should also be sensitized on the rights of women to equality as enshrined in the constitution and the importance of shared work ethics in the family settings.

To examine the influence of the level of education of household heads on women's participation on household food security programs in Bomet County.

The study found out that education level had direct influence on ones participation in food security programs. More of the household heads with higher education participated actively in seeking to enhance their agricultural knowledge. Agricultural and food security Programs aired through the radio should be at the radio should be at appropriate times when the listeners are at home. This has the potential of boosting productivity among households

To determine the extent to which headship in households influence women's participation on household food security programs in Bomet County.

In this study results pointed to female headed families as being food insecure coupled with low levels of education has negative influence on food security. The level of education of household head determines the level of opportunities available to improve livelihood strategies, enhance food security, and reduce the level of poverty. Agricultural and food management should be made a policy Bomet county in order to equip more household heads with upto date knowledge on food chain value management. This can give female heads a headstart in managing risks associated with food and be able to mitigate on such issues

5.6 Suggested areas of further research

Based on the analysis and findings of this study, a number of avenues for further research on the factors that influence food security in households should be conducted on food security .The research gaps in this study that could not be adequately covered included the actual time spent by both gender on a specific tasks, influence of family sizes on headship roles, the levels of differences on education level of household heads on food security. In addition more research is needed on the role of gender and income inequalities on food security. The researcher therefore urges policy makers, households, the centralized government and other stakeholders to take into account the factors in the bid to alleviate the problem of food security of households in the country. Further the researcher suggests that the above will greatly add in the knowledge gap.

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Appendix I: LETTER OF INTRODUCTION

Dear Respondent

REF: LETTER OF INTRODUCTION

The researcher is a Master of Arts in Project Planning and Management University of Nairobi carrying out research on “social cultural factors influencing women’s participation in food security programs among households in Bomet Central sub county, Bomet County, Kenya”. This is to kindly request you to tick or fill in blank spaces with your most suitable answer or response. The information provided will be treated in confidence and only used for the purpose of academic.

Yours faithfully

Hillary Kibet Langat

University of Nairobi

Appendix II: Questionnaire

Respondent's general information

1. Age of the respondent

20-30 31-40 41-50 above 50

2. Marital Status

Single Married separated divorced

3. What is your school level?

None Primary/adult literacy secondary Post secondary

4. What is the main occupation?

Farming not farming

5. Land ownership and decision control

a) What is the type of land ownership?

Inherited Purchased hired 4. Community

b) Is the inherited or purchased land registered?

Yes No

c) If yes under whose name is registered?

Myself. My spouse Both my spouse and I relative

d) Who decides on how the family land size should be utilized

Myself. My spouse Both my spouse and I relative

e) In the last five years, has the family ever sold any piece of land?

Yes No

If yes who made the decision to sell?.....

f) Has the family ever rented out any piece of land in the past?

Yes No

If yes,who made the decision to rent out?.....

g) Who controls the money from the sale or rental of land?

Myself. My spouse Both my spouse and I relative

6. Gender Division of labour

a) How many hours do you work on the farm in a day?

b) Who decides on the work to do? Myself My spouse Myself and spouse
Relative

c) Which of the following work do you engage in farm? Tick as appropriate

1. Milking 2.Planting 3.Weeding 4.Harvesting 5.Plucking tea
6. Herding 7. Watering animals

d) How many hours do you rest between 7am- 7pm 1 2 3
More than 4

7. Education level

a) Have you ever attended any other training on farming?

Yes No

If Yes, specify.....

b) Did the training help you in improving farm production and income?

Yes No

c) What source of information do you rely on for farming? Radio television
Books/Journals Agricultural officers

8) Headship of Household and food security

a) Who is the head of the family? Father Mother other,specify.....

b) Number of meals the household normally has per day

1 2 3 More than 4

c) What are the sources of food for this holding (Tick as appropriate)?

Own farm production

Purchased food

Supplies from relatives/friends

Government/donors

d) Has the household experienced any food shortages over the past 12 months?

Yes No

If yes, what were the main reason(s) for these food shortages? Tick as appropriate

1. Decline in own farm production because of draught
2. Decline in own farm production because of pests and diseases
3. Decline in own farm production because of labour constraints
4. Decline in own farm production because of time constraints

5. Decline in own farm production because of soil degradation
 6. Decline in own farm production because of low quality of agricultural inputs used
 7. Lack of funds to purchase food
 8. Decline in government food supplies
 9. Decline in food supplies from friends and relatives
 10. Decline in remittances received from relatives and friends
 11. Increase of food prices
 12. Unemployment of household member(s)
 13. Increase of household expenditures due to Illness/death of household member(s)
- e) Which of the following statements best describes your household (tick as appropriate?)

Statement	Never	sometimes	Often	Always
Did you or any other household member eat smaller meals in a day because of lack of resources to obtain enough?				
Did you or any other household member eat fewer meals in a day because there was not enough Food?				
Was there a time when there was no food at all in your household because there were not enough resources to go around?				
Did you or any household member go to sleep at night hungry because there was not enough food?				

In your own words what should be done to improve food security

.....
.....

Appendix III: Permission Letter



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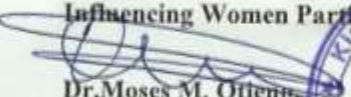
Our ref: UoN/Cees/Scde/Dems/Ksi/17/46 vol. 1

Date 9/11/2016

Dear Sir/Madam

RE:DATA COLLECTION.

Mr. Hillary Kibet Langat Reg No.L50/76908/2014 is a student at the University of Nairobi, College of Education and External Studies, Department of Extra-Mural Studies, pursuing a course leading to the award of a **Masters of Arts in Project Planning and Management**. For the course to be complete, he is required to carry out a Research Study. Therefore, the purpose of this letter is to kindly request you to accord him necessary assistance in getting information that will enable him carry out the Research work. His area of study is titled "**Social Cultural Factors Influencing Women Participation in Food Security Programs in Bomet County.**"


Dr. Moses M. Otieno,
Resident Lecturer,
Kisii Extra-Mural Centre.



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