# THE CONTRIBUTIONS OF WOMEN TOWARDS FOOD SECURITY IN MALAVA CONSTITUENCY, KAKAMEGA COUNTY, KENYA

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# **DECLARATION**

This project is my original work and has	not been presented for any academic degree
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# Abbreviations and acronyms

ASAL Arid and Semi-Arid Lands

EU European Union

FAO Food and Agriculture Organization

IDS Institute of Development Studies

IFAD International Fund for Agricultural Development

SPSS Statistical Packages for Social Sciences

USA United States of America

USAID United States Agency for International Development

WFP World Food Programme

#### **CHAPTER ONE**

#### **BACKGROUND TO THE STUDY**

#### 1.1 Introduction

According to an old Chinese proverb, "women hold up half the sky." In the battle against hunger and poverty, women, and especially rural women, most certainly hold up the heavier half (Chinery, 2011). Throughout the world, women are the principal guarantors of nutrition, food safety and quality at the household and community levels. They are the ones who often produce, purchase, handle, prepare and serve food to families and community institutions. In Kenya, women play a pivotal role in food production. They produce between 60 and 80 per cent of food in most developing countries and are responsible for half of the food production in the world (Chinery, 2011). In rural communities, women are often bestowed with the responsibility of providing food in the home. They often farm small subsistence plots of land to provide food for their families. Women are also responsible for at least half the tasks involved in the local storing of food and raising of animals in isolated rural communities. A part from food production, women increase their contribution to household food security by earning income to purchase food. They also try to do both to fulfill basic family needs. For these reasons, women are the foundation of food security in the community (IFAD, 1998).

Despite the significant contribution of women towards food security, development interventions aiming to improve access to food often bypass women. They give little attention to designing programmes that suit the needs, education, and cultural backgrounds of women or their aspirations for improving their economic and social conditions (Nadine, 1989). If the millions of rural women working to secure the

food security of their communities had access to even a small percentage of some of the investment, knowledge and tools afforded commercial enterprises, lives would be changed (Nadine, 1989). Not only would fewer communities suffer from hunger, but the women who often work a 'double day' in the home and then in the fields, would have access to technologies which make farming more efficient, less labour intensive and more profitable (Nangendo, 1994). Therefore, in order to ensure food security at the household level it is important to realize the critical role women play and to include them in all development processes towards the achievement of food security (Chinery, 2011). More investment is needed to develop gender appropriate tools and technologies to aid the activities of female agriculturalists. This covers a range of issues from securing land rights for women, to promoting and making available appropriate technologies, and to rectifying the bias towards commercial farming. There is a need for a strong specific focus on rural women through addressing key gender disparities at various levels in the distribution and access to productive resources, information and technology. Moreover, the different rights, responsibilities and decision-making abilities of women and men need to be understood in order to improve food security and nutrition. This proposal discusses the contribution of women towards food security in Malava Constituency.

#### 1.2 Statement of the problem

In Malava Constituency, as in many other parts of Kenya, women play important roles in food security as food producers, keepers of traditional knowledge, preservers of biodiversity, food processers and food providers for their families (Kabeer, 1990). Because of their multiple roles, women are key players in overcoming food insecurity. Despite these crucial roles, the recognition of the roles of women in agricultural production remains limited in international and national policy-

making in Kenya. Worse still, women tend to be invisible actors in development (Kabeer, 1990).

All too often, their work is not recorded in national statistics or mentioned in reports. As a result, their contributions are poorly understood and often underestimated. There are many reasons for this. For instance, work in the household is often considered to be part of the duties of woman as a wife and mother rather than an occupation to be accounted for in both the household and the national economy (Ellis, 2000). Outside the household, a great deal of the sector of rural women labourers, whether regular or seasonal, goes unpaid and is, therefore, rarely taken into account in official statistics. At the national level, financial and technological investment is still overwhelmingly focused on commercial farming, which is still a male dominated enterprise (Ellis, 2000). There is an inherent male bias in such policies, which further marginalize female agriculturalists that tend to restrict commercial activity to local markets and simple, but time intensive, value added processes such as the grinding or drying of produce (Ellis, 2000). It is against this background that this study sought to examine the contributions of women towards food security in Malava Constituency with an aim of making recommendations that can be used to improve food security in that region.

#### **Research questions**

- (1) What is the level of the contributions of women to food security in Malava Constituency?
- (2) What are the social and economic factors that impede women in Malava Constituency from being food secure?
- (3) How do women in Malava Constituency cope with food insecurity?

#### 1.3 Objectives of the study

#### 1.3.1 General objective

To assess the contributions of women towards food security in Malava Constituency

#### 1.3.2 Specific objectives

- (1) To determine the contributions of women to food security in Malava

  Constituency
- (2) To examine the social and economic factors that impede women in Malava Constituency from being food secure.
- (3) To find out how women in Malava Constituency cope with food insecurity.

#### 1.4 Assumptions of the study

- I. Participation of women in agriculture and income generating activities significantly contributes to food security in Malava Constituency.
- II. Social and economic challenges affect food security among women in Malava Constituency.
- III. Women in Malava Constituency cope with food insecurity through various mechanisms.

#### 1.5 Justification of the study

In developing countries such as Kenya, women and girls are the most susceptible to the impacts of food insecurity because they have less access to, and control over, resources than men do (Fatma, 2009). Subsistence farming is often an immediate means to food security at the household level. In Kenya, women carry out up to 80 percent of small-scale farming while men often dominate larger commercial activities (Fatma, 2009). The large proportion of agricultural production attributable to women in Kenya makes them important agents of economic development and food security.

Yet, while the involvement of women in the agricultural sector is critical, their control over the means of production and, in particular land ownership, is limited. Therefore, understanding poverty, the hunger cycle and survival strategies are important for finding out the best ways of supporting productive activities of rural women. Therefore, this study examined the contributions of women towards food security in Malava Constituency.

#### 1.6 Scope and limitations of the study

The study focused on the contributions of women towards food security in Malava Constituency. The study was conducted in three wards due to time and financial limitations. However, there is a potential for widening the scope of this research through the entire Kakamega County in future. The findings of the study may not reflect the general pattern of the contributions of women towards food security in other parts of the country except for Malava Constituency. Moreover, the extent of the contributions towards food security by women cannot be automatically generalized to the whole Malava Constituency.

#### **CHAPTER TWO**

#### LITERATURE REVIEW

#### 2.1 Introduction

The literature review for this study is organized under four themes, namely, the state of food security, the contributions of women towards food security, the social and economic challenges that affect food security among women, and the coping strategies of women during food insecurity.

#### 2.2 The state of food security

#### 2.2.1 The state of global food security

Despite growing attention in the world media and expanding aid efforts by many organisations, the world household food insecurity continues to worsen as many communities struggle with daily hunger and starvation (Project Concern International, 2009). A myriad of factors have been responsible for the continuing world food insecurity. One factor is the rise in prices of the world staple foods (wheat, rice and corn). It is established that inflation of wheat is 120% and rice is 75% (ibid). Another factor is poverty. An estimated 100 million people have fallen into poverty in the last two years - for instance in 2007, Afghanistan households were spending 75% of their income on food (World Bank, 2008). Dependence on food imports also influences the global food insecurity. A case in point is Haiti where over 80% of staple rice is imported. The result of it is that over half of the country's population is undernourished and 24% of children suffer chronic malnutrition. Fresh food exports, for instance the export of horticulture produce from Ghana to Europe for monetary gains has resulted in the country importing a significant proportion of its staple food such as

rice, ultimately leaving the country exposed to the spiralling world food prices. Moreover, the climate change due to global warming has influenced world household food insecurity. El-ninos and La-ninas hamper good crop production in Latin America and the Sub-Saharan Africa. Droughts caused by La-ninas have caused household food insecurity especially in Ethiopia where 7 million people are classified as food insecure and a further 10 million classified as prone to drought, (ibid). Other factors that contribute to household food insecurity in the world include: Shift to more non-agricultural technology, politics, environmental degradation, insecurity and high population growth.

Several consequences of global household food insecurity have manifested themselves. Demand for food aid is a serious consequence of the food insecurity. Each year, 10% of Burundi's population requires food aid, (FAO, 2008). Another consequence is poor health status exemplified in Benin, whereby almost a quarter of children below 5 years are underweight, (ibid). There are also increased malnutrition rates globally whereby in 2004, the global malnutrition was 15%, (WHO, 2004). World household food insecurity has also increased poverty among the global population and there was also serious global hunger index of 15.1% in 2010 (Grebmer, et al., 2010).

#### 2.2.2 The state of food security in Africa

In Africa just like the other parts of the world, various countries have experienced the devastating effects of household food insecurity. For instance, Cameroon in West Africa, Egypt in Northern Africa, Ethiopia in the Eastern Africa and South Africa in the extreme Southern Africa. The World Food Programme (WFP) describes Cameroon as a food insecure country, and has further demonstrated that food intake in households is lower now than in the early 1980s. The result of this is that 19% of

young children in the country are underweight and child mortality rate is rising rather than falling (Oneworld.net (US), 2009).

Egypt produces half of its demand for wheat. In spite of the average food production, the country is exposed to the escalating food prices due to its wheat imports. It is classified as the number one importer of the produce in the world. The country also has a high population growth rate of 2% per annum. Moreover, the desert terrain of the Sahara limits crop production. A report by the World Bank indicates that the baladi bread subsidy costs Egyptian government almost \$ 3.5 million per annum (Oneworld.net (US), 2009).

Ethiopia experiences serious household food insecurity. Over 7 million people out of Ethiopia's population of 76.9 million people are classified as food insecure; and a further 10 million people are identified as prone to drought. High population growth rate in the country increases the food insecurity further (Chu, 2009). Although South Africa produces bumper harvests especially in the 2007/08 season, it has been affected by high food prices in the declining world economy. High food prices are causing hardship 14 particularly among the poorest family households who spend a huge proportion of their income on food (Oneworld.net (US), 2009).

#### 2.2.3 Food security in Kenya

Kenya being no exception has also experienced Household food insecurity through a number of years. Food insecurity in Kenya is caused by inadequate farming area, drought, inadequate knowledge, and ignorance among other factors. Despite attempts to increase food production and enhance food security, it is worth noting that only 18% of Kenya's territory is suitable for farming.

Another cause of food insecurity in Kenya is poverty. The 2007/08 United Nations Human Development Report noted that almost 24% of Kenyans are living on less than one dollar a day, therefore not food sustaining (Republic of Kenya, 2009). Droughts in ASAL areas of Kenya have brought about a decline in crop and livestock production among households in these regions. Moreover floods cause displacement of people making them vulnerable to household food insecurity. It is estimated that the 2006 floods affected 700,000 people in the country; most of them cut off from food help due to impassable roads (ibid). The 2008 post election violence disrupted the March/April agricultural production. The World Food Programme reported that 50% of farmers were not sufficiently prepared for farming due to the post election turmoil. In addition, erratic rainfall exacerbates household food insecurity in the country. Poor rains in 1996 prompted the GOK to declare a state of national disaster on January the 28th (IRIN Humanitarian Report, 1997).

#### 2.3 The contributions of women to food security

Women play an indispensable role in farming and in improving the quality of life in rural areas (Daman, 2003). However, their contributions often remain concealed due to some social barriers and gender biases. Even government programmes often fail to focus on women in agriculture. This undermines the potential benefits from programmes, especially those related to food production, household income improvements, nutrition, literacy, poverty alleviation and population control (Daman, 2003). Equitable access for rural women to educational facilities would certainly improve their performance and liberate them from their marginalized status in the society. Other areas where the potential of women could be effectively harnessed are agricultural extension, farming systems development, land reform and rural welfare (Daman, 2003). Landmark improvements have been recorded in such cases as the

extension of institutional credit and domestic water supplies where potential of women have been consciously tapped (Daman, 2003).

In Kenya, as in many other parts of Africa, women play crucial roles in agriculture as producers and providers of food. More than 80 per cent of women in Kenya live in rural areas, playing multi-faceted roles in the rural sector as small-holder farmers, income earners and family caretakers (Nadine, 1989). Women contribute most of the labour required for the cultivation of food crops on family holdings and have increasingly contributed much of the labour in small and medium size holdings in the production of cash crops. In Kenya, it is estimated that women solely manage 27% of the small-holdings in Kenya (Republic of Kenya, 1985). Women are, therefore, prominent economic actors in land related activities, with a major stake in crop and small stock husbandry, crop preservation, processing and marketing and food preparation for both domestic consumption and sale (Republic of Kenya, 1985).

When analyzing how men and women allocate their incomes, studies in Ghana have found that women spend the largest proportion of their incomes on food for their families, followed by health expenditures and expenses of other household items and inputs (IFAD, 1998). The foodstuffs women tend to buy are not only items such as oil and salt. However, they also purchase supplementary millet and other staples, and buy vegetables when they themselves have not grown enough of these. Studies have found that for many poor women in Ghana, food security is as good as cash income (IFAD, 1998). Some enterprises of women actually buy food for each member of the group or pay members a portion of the food produced by the group. In this way, the households of women benefit from such efforts and the cash earned is not diverted to non-essential expenses (IFAD, 1998). This articles shades light on how women prioritize their expenditures in Ghana in order to meet their basic needs. Thus, it is relevant to

this study, which seeks to examine how women fulfill food security needs at the household level in Malava Constituency.

Fatma (2009) contends that food security depends not only on availability of sufficient food supply, but also on sustainability of access to food. She further posits that women contribute to agricultural production, especially food production, more than has been generally recognized. The reality in most sub-Saharan African countries like Tanzania and Kenya is that women workers in the agricultural sector often remain invisible because the products of their labour are for the largest part intended for household consumption and do not reach the market economy. For example, data from the Sudan indicate that rural women produce 60 to 70 percent of food production in most rural areas (Fatma, 2009).

Price and Sidney (1990) assert that improving household food security in Africa means focusing on the roles of women because they play a critical role as food producers and as income earners for their families. Unless the production and productivity of these women are increased, efforts to improve household food security in Africa will not succeed. In turn, increasing production and productivity of women farmers and entrepreneurs means removing the obstacles they face in doing their work and improving their access to resources and information so that they can help themselves (Price & Sidney, 1990). In short, women must not be marginalized but they must be brought into the mainstream of economic and social lives so that they can fully use their productive capacities and contribute more to the welfare of their families and nation (Price & Sidney, 1990). In addition to agricultural and non-agricultural activities, women traditionally have the central role in managing households and they do most of the work needed for the households to function (Price & Sidney, 1990). Therefore, the rights of women to land need to be given attention

because of the continued importance of land to incomes, employment and food security. The important roles women play in agricultural production, the weakness of their formal claims over land and their apparent vulnerability to loss as land becomes scarce are some areas that require urgent attention. Consequently, gender systems that only guarantee rights of access to resources rather than offer opportunities of control and ownership of those resources to recipients perpetuate gender inequality (Price & Sidney, 1990).

FAO (2007) suggests that if agriculture is properly managed it can have a positive impact on poverty alleviation, food security and rural population distribution. Moreover, agricultural indirect contributions to welfare are not well understood, seldom analyzed in the context of development and are rarely reflected in national and rural development policy strategies (FAO, 2007). Furthermore, the level of farm income increases relative to total household income, suggesting that agriculture remains an important source of incomes, even though households derive a significant proportion of their income from non-farm sources.

#### 2.4 Social and economic challenges that affect food security among women

Udry and Hoddinott (1995) observe that in sub-Saharan Africa, Kenya included, many factors explain the weakness of the productivity of women in agriculture. For instance, women farmers have quantitatively and qualitatively less access to information, technology, land, inputs, and credit. Policy-makers, managers, agents and participants in agricultural support services are generally males who are not always sufficiently aware of the specific problems and needs of women farmers (Udry & Hoddinott, 1995). As a result, information and extension services are typically geared towards male farmers on the assumption that the message will trickle down to

women. However, available evidence shows that in reality this is not the case (Udry & Hoddinott, 1995).

Lack of access to credit by women is a serious obstacle to improving their agricultural productivity, as without credit women farmers are unable to buy inputs such as seeds, fertilizers and improved technologies or they are unable to hire labour (Daman, 2003). The limited autonomy of women implies that they control far fewer marketable assets and, thus, may lack the opportunity to build independent reputations for creditworthiness (Daman, 2003). The economic and social challenges that impede women from producing enough food in Malava Constituency will be explored.

Lynn (2001) observes that poverty is a major cause of food insecurity. The purchasing power of an individual affects food security as much as the physical availability of food. In both developed and undeveloped countries, hunger stems simultaneously from economic policy structures and customs that are ineffective and morally reprehensible conduct and corruption (Lynn, 2001). Socio-cultural factors can also increase hunger and the risk of malnutrition. Food taboos, lack of status and influence by women, absence of training of women in nutrition, widespread illiteracy, as well as insecurity are all socio-cultural factors that can cause malnutrition and poverty (Lynn, 2001).

It has generally been argued that female-headed households are more vulnerable to food insecurity and non-income aspects of poverty (Kabeer, 1990). For example, cultural restrictions of the ability of women to participate fully in food production activities in some of the poorest areas of South Asia have left them particularly vulnerable in times of economic crisis (Kabeer, 1990). McLanahan (1985) finds that children in female-headed households have a lower rate of socio-economic attainment than children in the male-headed ones. If female-headed households utilize all

available resources including engaging school-going children in income generating activities to survive, then they end up with low education level attainments and, thus, the probability of transmitting poverty and food insecurity to the next generation is higher (McLanahan, 1985).

Different pillars of food security have been assessed by various scholars. For instance, in rural Pakistan, Khan & Gill (2009) analyzed the determinants of three components of food security, that is, food availability, accessibility and absorption. Khan & Gill (2009) aver that access to food is attained when household members have enough resources to acquire food. Food absorption/utilization has health dimension and requires sufficient energy from a good diet and access to clean water and sanitation. Moreover, they find that food availability requires the increased production of crops and livestock products. In the food accessibility component, they found that electrification and adult literacy positively contribute to food accessibility while marginalization of land contributes negatively to food accessibility. For food absorption, they found that child immunization, female literacy, safe drinking water and number of hospitals increase food security (Khan & Gill, 2009).

According to Suda (1991), women are critical links in achieving food security and land is a significant factor in the household food security equation. Supportive agricultural policies recognizing this critical link between women and food production will definitely influence their ability to contribute to household food security. Nevertheless, certain structural factors in the agricultural sector continue to prevent women from taking advantage of their increased control as managers of small-holdings. These factors include lack of control over land resources, which limits the ability of women to make major management decisions, for example, in using land as collateral to secure agricultural credit, provision of extension services, training,

marketing, and membership in co-operative societies, which are often biased in favor of male owners of land (Suda, 1991).

Poverty is inversely correlated with household land ownership. The landless are more

vulnerable, especially in famines, and have higher infant mortality rates (Agnes & Ruth, 2001). Women and children suffer disproportionately from shocks when their rights to household resources, including land, are mediated through men. Direct access to land minimizes the risks of the impoverishment of women and it similarly improves the physical well-being and prospects for their children. Even small plots provide access to natural resources that contribute to the survival, security and economic status of women. Furthermore, since many types of development specialists seek out only heads of household with secure tenure status, direct access to land also indirectly facilitates access to agricultural support services (Agnes & Ruth, 2001). The 2007 Economic Review of Agriculture indicates that about a third of the population of Kenya is considered food insecure (Republic of Kenya, 2008). Currently over 10 million people in Kenya suffer from chronic food insecurity and between two and four million people require emergency food assistance at any given time (Republic of Kenya, 2008). Nearly 30% of children are classified as undernourished, and micronutrient deficiencies are widespread. Ensuring food security and nutrition in Kenya is, therefore, a critical challenge. Food and nutrition insecurity is closely linked to poverty. About half the Kenyan population fall below the poverty line some of whom live in extreme poverty (Republic of Kenya, 2008). This situation has serious implications on the food security of people as the chronically food insecure suffer from extreme poverty. A growing problem of food and nutrition insecurity in Kenya is linked to the disappointing growth of agricultural production. The country has about 80% of its population residing in the rural areas

where agriculture dominates (Republic of Kenya, 2008). Even though the country has generally experienced positive growths in agricultural output over the last four decades, it has experienced serious declines in the agricultural sector in parts of the 1980s and 1990s and has had several periodic food deficits and acute food shortages (Republic of Kenya, 2008).

From food production to control over income, indications are that the position of women within subsistence economies is growing increasingly insecure despite their undisputedly critical roles in child bearing, rearing and feeding of families (Daman, 2003). Income in the hands of women tends to be associated with an enhancement in the family, particularly the welfare of children. Income in the hands of men, however, appears to increase the share of household expenditure on items consumed mainly by men (Davies, 1993). The inability of women to participate and influence critical decisions around household livelihoods is having a dire consequence on their ability to be effective in providing food for the households (Daman, 2003). Given the traditionally limited roles 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 policy-making processes and laws, which are important for poverty reduction, food security and environmental sustainability (Daman, 2003). Chinery (2011) contends that neglecting women as agricultural producers and resource managers inhibits the attainment of food security especially amongst poor households. Thus, if goal one of the Millennium Development Goals has to be achieved, marginalized rural women need greater access to education, information, credit, appropriate technology, and other resources that will ease their existing labour burdens, and ensure the welfare of their families and themselves (Ellis, 2000). If women are to be fully effective in contributing to food and nutrition security,

discrimination against them must be eliminated and the value of their roles promoted. This further requires policy reforms in support of an equal playing field for both men and women (Daman, 2003). Gender inequality is deeply rooted in entrenched attitudes, societal institutions, and market forces. In addition, political commitments at the highest international and national levels are essential to institute the policies that can trigger social change and to allocate the resources necessary to achieve gender equality and the empowerment of women for food security to be attained.

#### 2.5 The coping strategies of women during food insecurity

Ellis (2000) defines coping strategies as the methods used by households to survive when confronted with unanticipated livelihood failures. The strategies pursued by households differ in several aspects, that is, within the household and between households (Maxwell, et al 2003). Due to varying degrees of wealth in the community, households at different poverty levels adopt different coping behaviors. However, some coping strategies are common to all households although the extent to which such strategies enable a household to remain afloat depend on the assets at their disposal (Devereux, 2001). Above all, the general tendency is that the lower the household asset status, the more likely the household would engage in erosive responses such as selling off productive assets like farm implements (Devereux, 2001).

Zalilah & Geok (2008) notes that rural low-income households often use foodrelated coping mechanisms, for example, they cook whatever food is available at home and borrow money to buy food during periods of food insecurity. Dore& Adair (2003) observe that the use of less expensive food and consumption of home-prepared meals were prevalent coping mechanisms among low-income Russian households to protect the dietary intakes of children. Therefore, it would be interesting to find out how women in Malava Constituency cope with food insecurity.

Davies (1993) asserts that households faced with an income or food shock may protect their food consumption by purchasing or receiving food from other sources. Risk coping strategies deal with the consequences of risks such as self-insurance through precautionary savings and informal group-based risk sharing. Households can insure themselves by building up assets in 'good' years, to deplete these stocks in 'bad' years. Households may similarly modify their food consumption by reducing or/ and modifying food or reducing the number of consumers. Consumption soothing strategies generally increase as income-generating strategies get strained (Davies, 1993).

As several studies have shown, farming households adopt 'safety first' behavior, including coping strategies to deal with external climatic shocks (Suda, 1991). A common early strategy that has been observed is a reduction in food intake, or a change in diets. Specifically, women may switch to cheaper, less desirable and perhaps less nutritious foods or they may reduce the number of meals they take (Soda, 1991).

According to WFP (2009), farm family households in ASAL areas practise livestock production to mitigate crop losses. However, low numbers of livestock and their poor body conditions (as a result of extended trekking in search of water and pasture) has caused a 50% decline in their value. Furthermore, these households are also depending on undesirable mitigation strategies against their household food insecurity, such as charcoal production, which further degrade the environment and endanger future food production (ibid). Gitu (2004) observes that there is abandonment of indigenous drought resistant crops in ASAL areas due to changes in

food tastes and preferences constraining drought resistant crop cultivation to mitigate crop losses.

According to FAO's (2007) study, there are few households in developing countries where gardens act as a major source of food to meet household consumption requirements. A study carried out in Umbumbulu in Kwa-Zulu Natal province of South Africa to investigate household coping strategies against food insecurity revealed that most households obtained foods through purchases (93%), followed by own food production (4%), gifts and payments. Households from Umbumbulu did not consume sufficient food from their own production which was attributed partly to the sale of produce to purchase other foods or the purchase of other non-food goods, or the households did not produce sufficient food for consumption (Mjonono, Ngidi & Hendriks, 2009). Due to varying degrees of wealth among households, different coping behaviors are adopted by households at different poverty levels (ibid).

According to Rose (2008), women adopt mitigation strategies seek to minimize the potential impact of a hazardous event that may occur. Planting of drought-resistant crops such as cassava can reduce the shortfall of food that a household might experience in a year of low rainfall. Effective storage also mitigates crop losses by stabilizing food supply at the household level by smoothing seasonal food production (Thamaga-Chitsa, et al., 2004). Inadequate post-harvest storage contributes to household food insecurity, and more so in areas with high humidity. Crop storage efficiency depends on storage length, losses during storage (including quality deterioration) and storage volume. Losses are largely due to pests and oxidative damage. For storage to be effective, crop losses must be minimized. Inefficient storage increases the likelihood of grain vermin and pest to access the stored grains therefore increasing losses and compromising the quality and safety of

the stored grain, and again, farm family households in ASAL areas of Kenya are said to mitigate crop losses mainly by livestock production (WFP, 2009).

Food aid has also been used to help households cope with food insecurity. Food aid is an important relief for emergencies during food short falls in households and also increases access to food by households (FAO, 2008). Food aid from various donors such as Unite States of America (USA) and European Union (EU) acts as relief for emergencies during shortfalls of food production globally (Gitu, 2004). The United States is the world's largest food aid donor and provides approximately half of all food aid to vulnerable populations throughout the world; and in 2008, the US government provided more than 2.6 million MT of food commodities worth more than \$2.6 billion to 56 million beneficiaries worldwide (USAID, 2009).

Most common application of food aid include: General distribution of free food to vulnerable groups based on vulnerability criteria and needs assessment; food for work (FFW) - if the emergency intervention is mounted rapidly enough so that it begins before people have been badly affected by the crisis, since food for work is not an appropriate intervention for people who are already malnourished or who lack the energy necessary to undertake physical labour; specific feeding programmes including supplementary or therapeutic feeding for acutely affected sub-groups, and occasionally, the strategic use of monetization, or the sale of food aid in local markets can be used as a means of controlling food price hikes in the event of acute food shortages and rapidly rising prices, particularly in urban areas or among populations that are heavily dependent on the market for their food (Maxwell, et al., 2008).

#### 2.6 Theoretical Framework

#### The gender perspective

According to Parker (1993), the gender perspective is a conceptual framework that articulates the social construction of relationships in society. It views the role of women and women as socially defined without any bearing to their biological differences. This theory is different from feminism, which views women as victims of patriarchal oppression, but shares a lot of ideas with the feminist as far as feminine consciousness are concerned (Hooks 1984). The gender perspective denies the common feminist approach which views women as living under oppressive conditions which undermine their power and position in society. Instead, it is more concerned with women as actors in the development process and not as victims. Thus, it looks at women as agents of change

A gender perspective also introduces the relational approach, which looks into the relationship between men and women and the role they play in the society (Hooks 1989). Gender relations are the same time relations of separation, competition and of difference and inequality. They are concerned with how power is distributed between the sexes and define the way in which responsibilities and claims are allocated and the way in which each is given value. Hence, they create and reproduce systematic difference in men's and women's positions in society. Gender relations vary according to time and place between different groups of people. They also vary according to other social relations such as class, race and ethnicity, disability, and so on. Hence a gender analysis explores and highlights the relationships of women and men in societies and the inequalities in those relationships. (Candida et al 1999).

A gender analysis is transformational. It is concerned with understanding the practical situation under which men and women perform their roles with the aim of

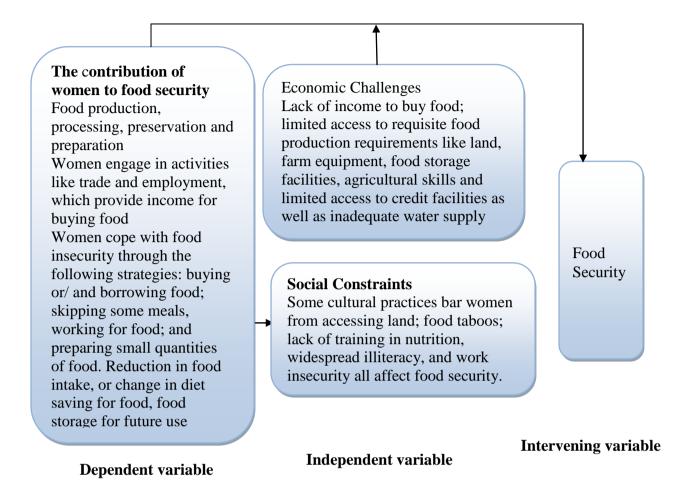
promoting gender equality. Therefore, the gender perspective advocates for the recognition and reward of women's reproductive and productive roles without any discrimination (Hook 1989). Such an analysis assists women in challenging equal gender power relations and contributes to women's empowerment (Candida et al 1989). A gender mainstreaming strategy involves bringing a gender analysis into all initiatives, not just developing an isolated sub- component. While gender mainstreaming does prelude specific initiatives that are either targeted at women or at narrowing gender inequalities, it goes beyond increasing women's participation to bringing the experience, knowledge and men to bear in the development agenda. Hence, a gender analysis is holistic. It may require changes in goals, strategies and action to enable women and men to influence, participate and benefit equally from development process.

# Relevance of theory to the Study

This theory is relevant to this study because it will provide an understanding of how households differentiate various households activities and responsibilities by gender, and so can in planning and monitoring women's and men's involvement in community development projects or programmes.

#### 2.7 Conceptual model

The conceptual framework below has been developed from the literature review above. In this conceptual framework, the independent variables are the contribution of women towards food security and their coping strategies during food shortages. The intervening variables are socio-economic challenges that impede women from being food secure and the dependent variable is food security.



#### 2.8 Definition of terms

**Food**: This is material, usually of plant or animal origin that contains or consists of essential body nutrients, such as carbohydrates, fats, proteins, vitamins, or minerals, and is ingested and assimilated by an organism to produce energy, stimulate growth, and maintain life.

**Food insecurity**: applies to a wide range of phenomena such as famine periodic hunger and uncertain food supply.

**Food security**: Food security, at the individual, household, national, regional and global levels is achieved when all people, at all times, have physical, social, and

economic access to sufficient, safe, and nutritious food to meet their dietary needs and food preferences for a healthy and active life(FAO, 2007).

**Food availability**: This is achieved when sufficient quantities of food are consistently available to all individuals within a country. Such food can be supplied through household production, other domestic output, commercial imports and/ or food assistance.

**Food access**: It is ensured when households and all individuals within them have adequate resources to obtain appropriate foods for a nutritious diet. Access to food normally involves three dimensions, namely, physical, economic and social. The distance, market access, ability to reach the food source and economic capacity to purchase the food are crucial factors.

**Food safety**: Is the proper biological use of food, requiring a diet providing sufficient energy and essential nutrients especially issues relating to "hidden hunger," availability of clean water and adequate sanitation.

**Food utilization**: Effective food utilization depends in a large measure on knowledge within the household of food storage and processing techniques, basic principles of nutrition and proper childcare, and illness management.

**Food stability**: This is ensured when a household and/ or country addresses consistency of supply, access, and utilization of foods among all citizens.

**Economic challenges**: This means there is scarcity, or that the finite resources available are insufficient to satisfy all human wants and needs.

**Social challenges**: Social challenges refer to problems that people have interacting with people in society or engaging in normal social behaviors.

#### **CHAPTER THREE**

#### **METHODOLOGY**

#### 3.1 Introduction

This section describes the research methodology that was used in this study. It explains the research design, target population, sampling procedures, sample size, data gathering instruments and analysis procedures. The ethical considerations for this study are also explained in the last paragraph of this section.

#### 3.2 Research site

The study was conducted in Malava Constituency, Kakamega County, western Kenya (Maps 3.1 and 3.2). It constitutes seven wards, namely, Chemuche, Butali Chegulo, Shirugu Mugai, Manda Shivanga, South Kabras, East Kabras and West Kabras. According to the Kenya National Bureau of Statistics (2009), the total population of Malava Constituency is 26,6057. This population comprises 12,9184 males and 13,6873 females. There are 52,636 households. Malava Constituency covers an area of 529.00 square kilometers with a population density of 503.30 per square kilometer. Malava constituency has an average temperature of 20.5°C. Rainfall ranges between 1,250–1,750 mm per annum. The constituency has good weather patterns and fertile soils making agriculture a major economic activity (Kenya National Bureau of Statistics, 2009). Some of the crops grown in Malava Constituency include maize, millet, beans, sorghum, cassava and vegetables. However, maize is the most widely grown crop supplying the staple food locally known as <u>ovusuma</u>. The main economic activity is the growing of sugarcane as a cash crop. Besides farming, livestock rearing and poultry keeping are practiced. At present,

fish farming is gaining prominence in the area. Malava constituency is mainly inhabited by the Kabras, Babukusu, Isukha, and Maragoli.

SUDAN **ETHIOPIA** MANDERA TURKANA MARSABIT WAJIR SAMBURU ISIOLO BARINGO LAIKIPIA THARAKA GARISSA MIGORI NAROK MACHAKOS KITUI TANA RIVER MAKUEN LAMUNC

TAITA-TAVETA

KILIFI

MOMBASA

KWALE

INDIAN OCEAN

**Map 3.1: COUNTIES OF KENYA** 

#### Source:

https://www.google.co.ke/search?q=kenya+contituencies+map&tbm=isch&tbo=u&source=univ&sa=X&ei=ZKhsUoHlFKGe0QXm\_IDICA&ved=0CCgQsAQ&biw=1

TANZANIA

MALAVA CONSTITUENCY COUNTY ASSEMBLY WARDS **Butali Chegulo** Chemuche West Kabras East Kabras

Map 3.2: MALAVA CONSTITUENCY COUNTY, ASSEMBLY WARDS

Source: http://www.flickr.com/photos/albertkenyaniinima/6574588143/

# 3.3 Research design

The study used a descriptive survey methodology to establish the contribution of women towards food security in Malava Constituency. This research design was deliberately selected for this study because it allows for quick data collection at a comparatively cost effective rate.

#### 3.4 Study population

The study population was composed of women heads of households that contribute towards food security. The unit of analysis was the individual woman aged 18 years and above.

#### **Sample Population**

The sample population was 45 women. This sample was considered suitable based on: (i) The need to cover the 3 wards to enable representativeness that made it possible to make generalizations on the entire population and (ii) this sample was adequate for statistical analysis. The sample size was small to enable finish the study within the time limits and resources available.

The sample of 45 women is arbitrary and not based on any sampling theory. This is because the study was not only based on the survey method of data collection but it also used key informant interviews and focus group discussions. The combination of these methods brought forth different types of data, hence, the validity of one was complemented by another.

#### 3.5 Sampling procedure

Sampling was done as follows: At the first level, simple random sampling was used to identify three wards from a list of seven wards in Malava Constituency. The wards were assigned numbers which were written on separate pieces of paper. The papers were then folded and tossed on a table. The folded pieces of paper were then randomly picked to identify the three wards. Purposive sampling was thereafter used in selecting key informants based on their knowledge of the role of women towards food security at the household level. Purposive sampling was also applied in identifying respondents for the focus group discussions.

#### 3.6 Data collection methods

#### 3.6.1 Survey method

A structured survey questionnaire with both open and closed-ended questions was used for gathering both qualitative and quantitative primary data (Appendix 1). Respondents were asked a set of questions touching on their background information, women's contribution to household food security and their coping strategies to mitigate household food insecurity.

#### 3.6.2 Focus group discussions

Focus group discussions were used to gather information about the contribution of women towards food security in Malava Constituency. A focused group discussion guide based on the study objectives was used (Appendix 3). Participants discussed the main livelihood activities of the community, the general situation of food security, land control across genders, contribution of women towards food security, coping strategies to mitigate food security and also recommendations for improving food security.

#### 3.6.3 Key informant interviews

The key informants were purposively sampled based on their expertise knowledge and general experience in the role of women towards food security. A key informant guide was used to facilitate the gathering of data from political leaders, representatives from civil society organization(s), youth leaders, persons with disabilities, women leaders and religious leaders (Appendix 3).

#### 3.6.4 Sources of secondary data

Secondary sources such as books, journal articles, periodicals and the internet about the contribution of women towards food security were also used to supplement information gathered from primary sources.

#### 3.7 Data analysis and presentation

All the data were organized systematically under various themes. Both qualitative and quantitative data analysis techniques were applied in this study. Qualitative information collected from key informants and focus group discussions were transcribed, analyzed thematically and presented in a narrative form. The quantitative data were coded and entered into the Statistical Package for the Social Sciences (SPSS). The data were analyzed descriptively and then presented using both tables and graphs.

#### 3.8 Ethical considerations

Before the interviews were conducted, a statement of consent was read to all informants in the study after which they were asked for their informed consent to participate. A research permit was sought from The Commission for Science, Technology and Innovation at the Ministry of Education. In addition, permission to be away from the Institute of Anthropology, Gender and African Studies, University of Nairobi, was also requested.

In the field, before conducting oral interviews, an explanation was made about the intent of doing the research, the objectives, benefits and risks. The informed consent of the study participants were then sought after the assurance that information provided by the respondents shall remain confidential. The study did not delve into personal information of the respondents and the participants were assured that the findings of this study would be used for academic purposes only.

The study respondents voluntarily signed the informed consent form which summarized the aims of the study and the possible risks of being an informant. Privacy and confidentiality were upheld through the use of codes instead of names.

#### **CHAPTER FOUR**

# THE CONTRIBUTIONS OF WOMEN TOWARDS FOOD SECURITY IN MALAVA CONSTITUENCY

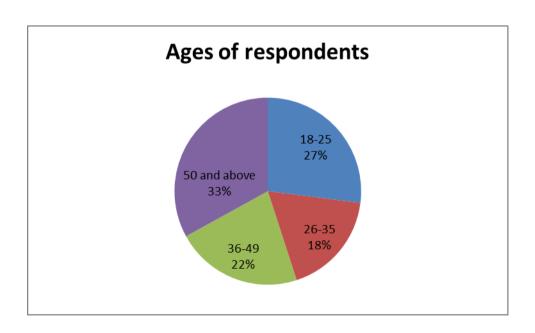
This chapter illustrates the study findings on the contribution of women towards food security in Malava constituency in form of charts tables and excerpts from the study respondents.

#### 4.1 Demographic profile of study participants.

### 4.1.1 Ages of respondents

All the study participants were females of different age groups. While a majority (33%) were 50 and above years old, the age group 26-35 had the least percentage of participants (18%). There was 27% in age group 18 to 25 and 22% between 36-49 years old as shown in Figure 4.1.1 below.

Figure 4.1.1 Ages of respondents



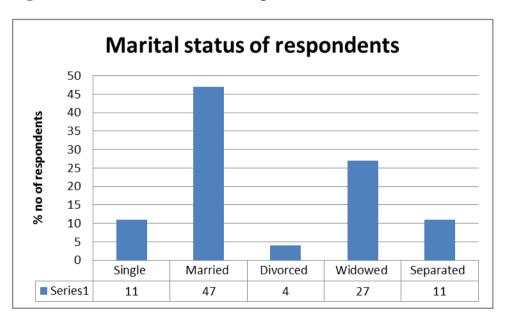
## 4.1.2 Marital status of respondents

While most of the respondents (47%) were married, there were 11% single 4% divorced, 27% widowed and 11% separated. Most respondents 53% represented female headed households.

Table 4.1.1 Gender and marital status of respondents

Status /	Single	Married	Divorced	Separated	Widowed	Total
Age in yrs						
18-25	5	13	0	7	2	27
26-35	3	9	2	1	3	18
36-49	1	14	1	2	4	22
50&above	2	11	1	1	18	33
Total	11	47	4	11	27	100

Figure 4.1.2 Marital status of the respondents



#### **4.1.3** Household sizes of respondents

Most households (59%) had more than five members, while 8% had more than 10 members and 51% had between 6 to 10 members. This shows that a majority of the respondents had large household sizes as shown in Figure 4.1.3 below.

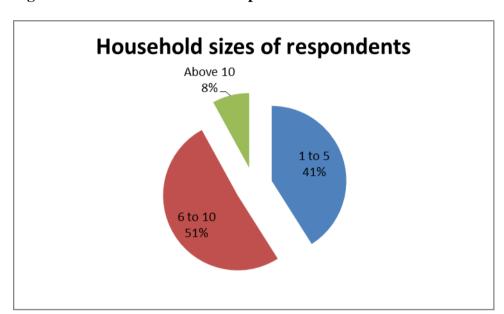


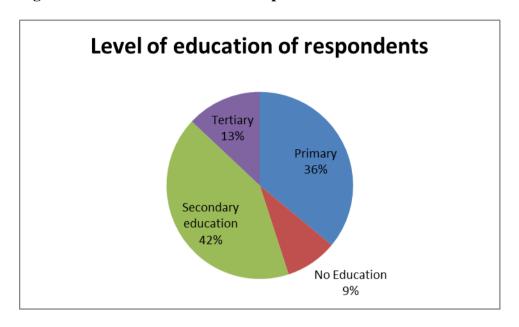
Figure 4.1.3 Household sizes of respondents

The household size has a direct correlation to food consumption and, therefore, a greater need in terms of food security. The women heading larger households have to, therefore, work extra to satisfy the household needs. This calls for more coping strategies in times of food insecurity.

#### 4.1.4 Level of education of respondents

Most respondents (91%) had some education with only 9% having no form of education. While a majority (42%) of the respondents had secondary school education, 36% had primary education and only 13% had acquired tertiary education (Figure 4.1.4).

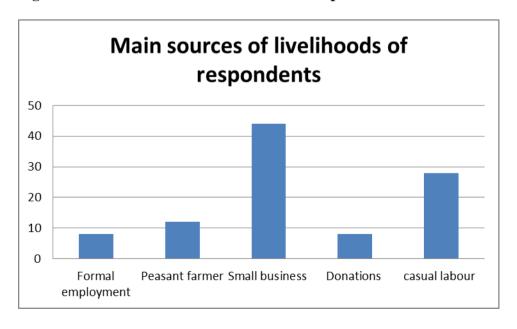
Figure 4.1.4 Level of education of respondents



#### 4.2 Livelihoods of respondents

Looking at the occupations of women, all of them interviewed, except nine percent reported to be doing some work to make their families food secure as shown in Figure 4.2.1 below. The women were reported to be the main contributors to food security especially in female headed households.

Figure 4.2.1 Main sources of livelihoods of respondents



As shown in the figure above, all the respondents, except nine percent did some activity to earn a living. The nine percent though depended on donations from husbands and relatives also contributed to food security in their households since they used the donations to ensure their families have food.

As per the findings in the Figure above women do different activities to ensure food security in their households. Such activities include formal employment, peasant farming, small businesses and even casual labor.

All the women, including those who depend on donations for a livelihood, participated in farming activities such as weeding and the provision of farm related labour such as harvesting and transporting. This shows that women have much to contribute towards food production. One of the respondents stated that,

If I do not provide the required labour on that farm then the farm might end up without weeding the entire year

From a key informant, it was clear that the women actually contribute to food security at all levels from farming to storage, cooking and serving the food, hence, making food itself accessible. A male key informant stated:

The women do a lot in terms of food security, most of them plough the farms, weed, harvest, store, cook and serve and have to keep the farm produce safely before the next harvesting season.

In the focus group discussions when asked whether they contributed to food security in their households, all the respondents answered in the affirmative. Even those who depended on donations to earn a living said they ensured that the donations they get are used on food and in addition, they have to ensure the food is well cooked and at times they had the responsibility of looking for food.

In the focus group discussions the women espoused their role as the main food providers in this way,

.....It is the role of the woman to ensure there is food in the house...I must ensure that the children have eaten well and even the husband as well even if am not employed.

Even under situations where the husband is the household head, women still expressed household food security as their responsibility and something that a man does not do. It was reported that:

Even if your husband is working and earning, he will not put food on the table. It is the responsibility of the wife to choose the kind of food, cook and even keep the remaining amount safely... if you do not do that then you will be beaten and chased away.

As per the findings, it comes out clearly that it is the responsibility of most women to ensure food is available to the family. Women also dedicate the funds from their livelihood activities to feeding their families.

# 4.3 The social and economic factors that impede women in Malava Constituency from being food secure.

When asked about the socio-economic factors that bar the women from achieving food security, the women had much to say. From the focus group discussions it came out clearly that men were barriers to food security since they seldom contribute to food security and instead focus on money. The women reported that the men are most often involved in the sale of the produce that would otherwise provide household food security. One of the informants stated thus:

They wait till the harvest is ready for sale and that is when they become active. The issue of access to productive farmland was also identified as a problem since land is culturally owned by males. It is the role of the males to allocate farmland to the family and since the land belongs to them they have the rights to control the use of the farm produce. Such cultural factors make it difficult for women to access and even decide on the use of the family farmland. One female informant said:

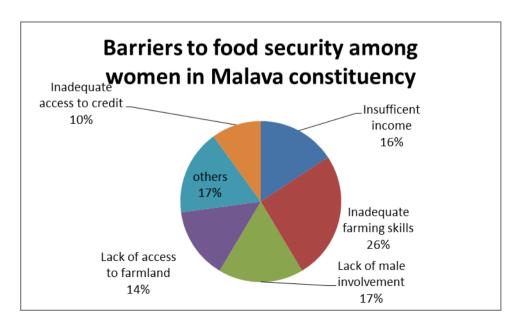
Here land belongs to the men, you can only ask them for a portion to plant some vegetables, the women are married and they have to share the man's land and in such cases we I cannot make personal decisions on how to use the land.

Another factor identified by the study that impede food security is insufficient income. Most women in the study had no stable incomes and as per their perceptions, the lack of stable, regular incomes translates into inadequate money to invest in food production and to purchase food. A female key informant who was also a leader of a women group reported that:

You know most women in this area lack formal employment and regular income to help them purchase food or even farm inputs as such they remain food insecure.

From the survey, the socio-economic factors mentioned that contribute to food insecurity among women in Malava include: insufficient income, inadequate farming skills, lack of male involvement, lack of access to farmland, large family sizes, lack of farm inputs and gender division of labour as shown in figure 4.3.1 below.

Figure 4.3.1 Factors that impede women in Malava constituency from being food secure



#### 4.4 How women in Malava Constituency cope with food insecurity.

Various ways of coping with food security were mentioned during the interviews. Such strategies include: reducing food consumption, resorting to wild vegetables, preharvest on farm processing, farming short term food crops, borrowing from neighbors and women groups and sale of assets.

The women in the focus group discussions reported resorting to wild vegetables in times of food shortage as shown in the excerpt below.

......At times when there is no money to buy food, we look for wild vegetables in the farms so that we do not go without food.

A number of women who had small holdings reported doing premature harvesting and on farm processing just to have some food that can push the family to the next day. This was mentioned to be common with beans.

During famine, we can harvest maize or beans prematurely, that is before they are dry and process them on the farm just to make food such as githeri.

Others also reported having learnt of the drought patterns and to cope with the periodic food insecurity that comes with the drought, they specifically plant short-term food crops such as sweet potatoes and beans to supplement during shortage. Some also reported to grow drought resistant crops such as cassava and some variety of sorghum.

What we do in most cases to ensure food security is to ensure we have some short term food crop or drought resistant crops such as cassava or sorghum. Such can do well even when the droughts persist.

Another coping strategy mentioned is borrowing money or food from neighbors or women groups. There are also social networks that act as social protection mechanisms during food shortage as they pool resources and distribute food to members' households.

You know, we have women groups and neighbors and at times when you lack food you just call a neighbor and ask for what you lack especially flour. ....Me I borrow money from the women groups where I belong so that I can pay back when I have money. I can then use the money to buy food so that my family does not go hungry.

Some women mentioned resorting to two meals in a day or reducing the amount of food they consume each day.

During scarcity I have to reduce the amount of food we take as a family in a day. The family members during those days must adapt to having two meals a day.

The reduction in the amount of food taken was mentioned by most respondents and seems to be a common way of dealing with food insecurity.

Other respondents mentioned the sale of family assets to acquire food. Such assets mentioned include cows, goats, chicken, beddings and extra grains to get some other food whose supply is inadequate.

Though not a very sure way to cope, some respondents mentioned dependence on relief food or borrowing from distant relatives while others sent part of the family to stay with relatives during periods of food insecurity. A widow with six children reported to cope as follows.

At times we are forced to borrow from relatives who stay in non-drought affected areas. We also once got food aid when farmine persisted. There is a time I sent my children to stay with their aunty and I remained around to survive on the little food available.

The respondents generally presented a variety of ways to cope depending on the circumstance and the feasibility of the method. The coping strategies also depended on the poverty levels of an individual. This is because not all would have some asset to dispose off and even very few would have extra grains to sell during scarcity.

#### **CHAPTER FIVE**

#### DISCUSSION AND CONCLUSION

#### 5.1 Introduction

This chapter discusses how women in Malava constituency contribute to food security, how they cope in times of scarcity and the factors that pre-dispose them to food insecurity.

#### 5.2 The contribution of women to food security in Malava Constituency

As per the findings of this study, women are crucial and key contributors to food security in Malava constituency. This they do through farming, provision of farm labour, processing agricultural products into palatable food and storage of food products. They are also the keepers of traditional knowledge and preservers of biodiversity, food preparers and providers for their families.

The women in Malava were reported to participate in farming activities. They are often the farmers who cultivate food crops and produce commercial crops alongside the men in their households as a source of both food and income. The study findings show that 11% of the women are peasant farmers and, hence, food producers. Others who do not own farms contribute to food production through offering farm labour in their husbands' farms. This is in tandem with the findings in other parts of Kenya as in many other parts of Africa. As noted by Nadine (1989) more than 80 per cent of women in Kenya live in rural areas playing multi-faceted roles in the rural sector as small-holder farmers, income earners and family caretakers.

Fatma (2009) has noted that food security depends not only on availability of sufficient food supply, but also on sustainability of access to food. She further notes

that women contribute to agricultural production, especially food production, more than has been generally recognized. The reality in most sub-Saharan African countries like Tanzania and Kenya is that women workers in the agricultural sector often remain invisible because the products of their labour are for the largest part intended for household consumption and do not reach the market economy.

In this study it was noted that women in Malava constituency contribute most of the labour required for the cultivation of food crops on family holdings and have increasingly contributed much of the labour in small and medium size holdings in the production of cash crops. Based on the findings, the women perform many tasks in household crop production, including sowing seeds, weeding, applying fertilizers, pesticides, harvesting and threshing of the crops. They are also responsible for post-harvest food processing, storage, transport and marketing as noted by Maxwell et al (2008).

The women despite all these are involved in food selection, processing and cooking. This has been noted by Nadine (1989) alluding to the fact that women are the major providers household food all the way from the farm.

In addition to producing staple crops, women in Malava constituency also grow legumes and vegetables to feed their families. They also play an important role in raising poultry and small livestock such as goats, rabbits and pigs. They also feed and milk livestock. This has been noted to provide coping mechanisms especially during crop failures (FAO 2008).

In Kenya, it is estimated that women solely manage 27% of the small-holdings (Republic of Kenya, 1985). Women are, therefore, prominent economic actors in land-related activities, with a major stake in crop and small stock husbandry, crop preservation, processing and marketing.

This study also showed that women in Malava constituency are involved in different money generating livelihood activities that help them acquire some income. When women have an income, substantial evidence indicates that the income is more likely to be spent on food and children's needs. The respondents especially women indicated that they used to contribute to food security through their incomes. This is in tandem with the findings of Quisumbing et al (1995) alluding to the fact that women are likely to spend their income on household and children's needs.

According to the study findings, women in Malava constituency use their income on food and family related expenditures. This is because the responsibility of taking care of the children and the family at large has been culturally placed upon the woman. In line with studies in Ghana analyzing how men and women allocate their incomes, the study found that women spend the largest proportion of their incomes on food for their families, followed by health expenditures and expenses of other household items and inputs (IFAD, 1998). The foodstuffs women tend to buy are not only items such as oil and salt, they also purchase supplementary foodstuff such as millet and other staples, and vegetables when they themselves have not grown enough of these.

Across the world, women have always contributed to food security. According to FAO (2008) Asian, women provide up to 90 per cent of the labour for rice cultivation. In Colombia and Peru, women perform 25 to 45 per cent of agricultural field tasks. In Egypt, women contribute 53 per cent of the agricultural labour. Men are found more often in agricultural wage labour and cash crop production, while women are mostly found producing food for their families and local markets.

Women are also found in agricultural wage labour. In Northwest Brazil, for example, women make up 65 per cent of the field workers in vineyards. In Chile, women comprise 60 per cent of the contractual workers in the fruit sector. In Sinaloa, Mexico, women are 40 per cent of the field workers for vegetables and 90 per cent of the packers (FAO 2008).

In Kenya, women provide 70 to 80 per cent of the labour in packing, labeling and bar-coding of horticulture. Latin American women are less involved in crop production than women in sub-Saharan Africa, but are largely responsible for small livestock. In Nepal, women have almost the sole responsibility for fodder collection for buffalo while in Pakistan, women provide the majority of the labour for cleaning, feeding and milking cattle. Women likewise assume significant roles in forestry, planting and caring for seedlings and gathering forest products for fuel, fodder and food. With most rural areas dependent on fuel wood, women are almost always the ones responsible for gathering fuel wood that is used not only for cooking but also for food processing and other basic needs such as warmth, light and boiling water for drinking (FAO 2008).

In addition, small-scale fisheries, which provide more than 25 per cent of the world's fish food catch, depend on women's contributions. In most parts of the world, women in fishing communities catch fish with nets and traps and by baiting and diving. They raise fish and crustaceans; make and repair nets and traps; assist men with launching and beaching operations, sorting and gutting the haul; and process and market their catch (FAO 2008).

Apart from food production and processing, women are often the preservers of traditional knowledge of indigenous plants and seeds. As the ones responsible for supplying their families with food and care, they have a special knowledge of the value and diverse uses of plants for nutrition, health and income. They grow traditional varieties of vegetables, herbs and spices in their home gardens. Women also often experiment with and adapt indigenous species. They are involved in the exchange and saving of seeds. This has important implications for the conservation of plant genetic resources. Unfortunately, the importance of women's knowledge and expertise on biodiversity is often overlooked or ignored by development planners (FAO 2008).

Women in Malava also reported being directly involved in food processing, preparation and service. This shows that they are generally responsible for food selection and preparation and for the care and feeding of children as reported by Quisumbing et al (1995). Quisumbing et al (1995) further note that women are the key to food security for their households.

# 5.2 The social and economic factors that impede women in Malava Constituency from being food secure.

Some of the factors mentioned that bar women in Malava constituency from being food secure include inadequate access to land, inadequate access to credit, lack of male involvement, inadequate skills and stereotyped gender roles. This has been noted across sub Saharan Africa. As noted by FAO (2011), although African women are disproportionately responsible for providing food to their families both in female-and male-headed households, they have less access to, and control of, agricultural assets and inputs than men.

As noted by Kabane (2010) constraints faced by women farmers differ from country to country and culture to culture. In Kenya, Nigeria, Afghanistan and other patriarchal societies for instance, women lack independent rights to land. Land rights are only allocated through men, either sons or husbands. This is in agreement with a synthesis report carried out in nine countries (Bennin, Burkina Faso, Tanzania, Congo, Morocco, Sudan, Mauritania and Zimbabwe) also agrees that women rarely own land and when they do their holdings turn to be smaller and less fertile than those of men (Manuh, 1998).

The FAO (2011) agrees with the sentiment that women be allowed to access land either directly or indirectly, as the majority have limited or no access to or control over land. In some African countries, women are rarely allocated land in their own right, particularly in patrilineal areas. Land is allocated to men, who are the heads of household.

In addition to discrimination in terms of access to production resources, there are inadequate skills among women in Malava Constituency. Inadequate skills among women might be as a result of other discrimination in terms of accessing different services such as extension and education and unobservable gender differences in other characteristics including ability and motivation as observed by FAO (2011).

Women also face more socio-cultural and political barriers compared to their male counterparts. Women carry most of the burden for housework and childcare. These many roles have greater implications on technology adoption, food security and access to markets. Increasing women's access to land, livestock, education, financial services, extension, technology and rural employment would boost their productivity

and generate gains in agricultural output, food security, economic growth and social welfare (FAO, 2011).

In fact, other scholars have also noted that although women constitute 75 percent of Kenya's agricultural labour force, gender inequalities undermine their productivity, including limited access to essential resources (agricultural technologies, extension services and marketing facilities) and institutionalized barriers to credit and land ownership (Institute for Development Studies, 2006).

As noted in the study, gender inequalities and lack of attention to gender in agricultural development contribute to lower productivity, and higher levels of poverty as well as under-nutrition (FAO 2011). In fact the 2012 World Development report dedicated to *Gender Equality and Development* warns that the failure to recognize the roles, differences and inequities between men and women poses a serious threat to the effectiveness of the agricultural development (World Bank 2012).

In Malava, as in many societies, women supply most of the labour needed to produce food crops and often control the use or sale of food produce grown on plots they manage. This is no exception since in Kenya; women provide 70 to 80 per cent of the labour in packing, labeling and bar-coding of horticulture (FAO 2011).

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 male relative as noted by Deere & Doss (2006). Although land as a factor of production should be accessed equally by every gender, biasness has been noted across Africa. Deere & Doss 2006 indicates that 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 are almost three times women's land holdings. This compromise 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. Insecurity of tenure for women results in lower investment and potential environmental degradation. It also compromises future production potential and increases food insecurity.

If women farmers in Malava in particular and Kenya in general 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 2009). More importantly, household productivity in agriculture and food supplies could often be increased at no extra cost by reallocating existing resources inside the household towards women.

#### 5.3 How women in Malava Constituency cope with food insecurity.

Food security is essentially built on three pillars: food availability, food access, and food utilization (Maxwell et al 3003). When the three pillars are affected within the household, then the household experiences food insecurity.

As noted by Maxwell, et al (2003), the strategies pursued by households to cope with food insecurity differ in several aspects, that is, within the household and between households due to varying degrees of wealth in the community. Households at different poverty levels adopt different coping behaviours. In dealing with food insecurity, women in Malava have put in place a number of strategies such as: on farm premature harvesting and processing, planting short term food crops, borrowing food or cash from friends and neighbors, depending on social networks such as

women groups and reducing the family consumption rates by resorting to less than three meals a day.

Other coping strategies include relying on less preferred/inexpensive food; gathering wild food, hunting or consuming seed stock held for the next season; sending household members to eat elsewhere; limiting portion size at meal times; restricting adult consumption in favour of small children; reducing the number of meals eaten in a day; skipping entire days without eating and begging from neighbours or friends as noted by Mjonono, Ngidi & Hendriks, (2009).

On the issue of availability, women in Malava were noted to practice on farm processing of food to ensure availability during pre-harvest shortages. This strategy ensures that food from the farm is readily available for consumption before the main harvesting period.

Increased reliance on coping strategies is associated with lower food availability and the higher the weighted sums of coping strategies, the more a household is food insecure. In such situations the household members must focus on using the little food resources available to enable them survive to the future as noted by Maxwell, et al., (2008).

Some women in Malava negotiate and sell off productive assets like farm implements, cows, goats and even chicken. This has also been noted in other studies by Devereux, (2001) in that such assets are meant to save during crisis. In addition, in Malava, most women borrow money to buy food during periods of food insecurity. Zalilah & Geok (2008) note that rural low-income households often use food-related coping mechanisms, for example, they cook whatever food is available at home and borrow money to buy food during periods of food insecurity.

Women groups and social networks have been noted to help during food shortages since they lend and, hence, act to protect the women from livelihood failures. This has also been noted by Davies (1993). He notes that social networks such as women groups promote savings during surplus and informal group-based risk sharing. Households can insure themselves by building up assets in 'good' years, to deplete these stocks in 'bad' years.

In Malava, the women reduce the consumption rate by reducing the number of meals in a day as noted by Davies (1993). This reduces the burdens placed on women to look for more food. Unlike others who reduce the household size by sending some children to relatives in food secure areas, the women in Malava resort to fewer meal per day.

Women have also a preference for food crops rather than cash crops. Most women practice the legume intercrop production system for their plots. This approach helps improve soil fertility and increase the productivity of their main crop as well as improved household food security by providing an additional source of nutritious foods.

Studies have also shown that women have more knowledge on food and nutrition compared to men. Poorer households headed by women have demonstrated that they often succeed in providing more nutritional food for their children than those headed by men (Kennedy & Peters 1992). This demonstrates the importance of gender-based knowledge and roles with regard to food security. They further note that men who lack knowledge about food preparation may not be able to translate food availability into nutritional security for their households.

As noted by Maxwell et al (2008), certain coping strategies are easily reversible while others have long term devastating effects on household survival. Modest dietary adjustments for instance (eating less-preferred foods or reducing portion size) are easily reversible strategies that do not jeopardize longer-term prospects while more

extreme behaviors (sale of productive assets) suggest more serious long-term consequences and, many researchers have noted that as food insecurity worsens, households are more likely to employ strategies that are less reversible, and therefore represent a more severe form of coping and greater food insecurity (ibid).

Farm family households in ASAL regions of Kenya for instance at times depend on undesirable coping strategies to reduce the impacts of their households' food insecurity. They employ strategies such as charcoal production which degrade the environment ultimately endangering future crop production (WFP, 2009).

#### 5.4 Conclusion and recommendations.

Gender-based inequalities all along the food production chain "from farm to plate" impede the attainment of food and nutritional security. Although women in Malava are disproportionately responsible for providing food to their families both in female-and male-headed households they are faced with a number of constrains. They have less access to, and control of, agricultural assets and inputs than men. In addition to discrimination in gender difference in observable characteristics, there are other forms of discrimination in terms of accessing different services such as extension and education and unobservable gender difference in characteristics including ability and motivation. Furthermore, women carry most of the burden for housework, child care and care for the sick and elderly.

Women in Malava constituency actively contribute to food security in their households and have developed coping strategies to ensure their families are food secure. Such coping strategies should be strengthened to help achieve food security in Malava constituency in particular as well as Kenya in general.

#### 5.5 Recommendation

There is a need to establish legal reforms to take into account multiple-use rights to land, particularly women's rights, as well as the different means by which women gain access to land, including divorce and inheritance systems.

There is also a need to provide grants to support gender-sensitive and sustainable agricultural development in Malava constituency.

There is moreover a need for multi-dimensional interventions since existing problems related to food production, food safety nutrition; employment and purchasing power are multi-dimensional and multi-sectoral. It is, therefore, important to put in place institutional structures and arrangements that utilize the relevant departments, ministries and other institutions for the implementation of the food security strategies and that create an enabling environment to facilitate the full participation of the private sector, civil society and communities.

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#### **APPENDICES**

## Appendix 1

## Survey questionnaire

My name is Pauline Liru. I am a postgraduate student in gender and development studies at the University of Nairobi. At present, I am doing a project on the contribution of women towards food security in Malava Constituency, Kakamega County. Therefore, I am requesting you to share with me your experiences on food security in this area.

## Section A: Demographic information of the respondent

1. Gender
Male ( ) Female ( )
2. Age
18-25 years ( ) 26-35 years ( ) 36-49 years ( ) 50 years and above ( )
3. Marital status
Single ( ) Married ( ) Divorced ( ) widowed ( ) separated ( )
4. Education Level
Never attended school ( ) Primary ( ) secondary ( ) university ( ) tertiary ( ) other
(specify)
5. What is your family size?
Section B: The contribution of women to food security
6. What do you do for a living? (Probe for business, farming, and employment)
7. What do you understand by food security?
8. Do you contribute towards food security in the household?
If yes, how
If no, why

## Section C: Challenges that impede women from being food secure

9. What factors hinder women from being food secure in this area? (Probe for factors such as lack of land, harsh weather, lack of farming equipment and skill, insufficient income to buy food etc.)

## Section D: Recommendations for improving food security

10. What are your recommendations for improving food security in this area? (Probe)

#### Appendix 2

### Focus group discussion guide

#### Introduction

My name is Pauline Liru. I am a postgraduate student in gender and development studies at the University of Nairobi. At present, I am doing a project on the contribution of women towards food security in Malava Constituency, Kakamega County. Therefore, I am requesting you to share with me your experiences on food security in this area.

- 1. What are the main livelihood activities for people in this community?
- **2.** How do people get food in this community? (Probe)
- **3.** What do you understand by food security?
- **4.** Can you say that in this region/community there is enough food for its people? and WHY

If yes, explain

If no, explain

**5.** Do you know of people in this area who do not have adequate food? (probe)

6.	How do community members make sure that they always have adequate food? (probe)
7.	Do women and men have equal control over land in this region/community?
8.	Among men and women, who does the most work to make sure that there is always adequate food in this region/community (probe for kind of work)
9.	Are there markets to sell your farm produce in this area/community?
11.	What are your coping strategies during food insecurity?
12	What are your recommendations for improving food security in this area?

## Appendix 3

## **Key informants guide**

## Introduction

My name is Pauline Liru. I am a postgraduate student in gender and development studies at the University of Nairobi. At present, I am doing a project on the contribution of women towards food security in Malava Constituency, Kakamega County. Therefore, I am requesting you to share with me your experiences on food security in this area.

## Key informants' demographic information

	Name
>	Sex
>	Age
>	Category
>	What is the general family size in this region?
1.0	(a) Rank the 3 top most livelihood activities for this region
	Rank 1-3 (Most important first)
	<b>(b)</b> What is your main food?
	(c) Probe for what they eat it with
	(d) What other foods do you eat?

2.0	(a) What are the main livelihood activities for people in this area?
	(b) What are the main challenges in engaging in the livelihoods you mentioned above?
3.0	How do you get your food?
4.0	Would you consider this region to have adequate food? (Explain)
	(a) If yes, why do you think you have adequate food?
	(b) If your answer is no, what do you consider as the causes of not having adequate food?
1.0	(a) Are there people in this area who do not have adequate food? (Issues of distribution, Income, Market prices)
	(c) If yes or no, probe for; (Income, Market Price, Lack of food at the markets, Security e.t.c)
	(d) What do people do when they don't have adequate food?
	(e) What do you do to make sure you have enough food?
6.0	(a) Do women and men have equal access to land in this region?

	YesNo
	(b) If you have access to the land, what do you do with the land?
7.0	(a) Are there markets to sell your produce?
	(b) Are there markets to buy your food?
8.0	<ul><li>(e) How involved are women of this community in making sure that there is dequate food in their households at all the times?</li><li>(f) Given what you have discussed earlier, do you think your area could be self-reliant in provision of adequate food to its people?</li></ul>
	(g) Let us now discuss some of the options that could be used to make sure that all have adequate food.
	(h) Do any of the following issues hinder you from achieving food security
	• Social issues; (explain)
	• Economic issues; (explain)
<b>9.0</b> W	hat are your coping strategies during food insecurity?
10.0 V	What are your recommendations for improving food security in this area?