

**UNDERSTANDING THE COMPLEXITY OF FOOD ACCESSIBILITY FOR RURAL FEMALE-HEADED  
HOUSEHOLDS: CASE STUDY OF SMALLHOLDER FARMERS IN JOWHAR DISTRICT, SOMALIA**



**Ahmed Addow**

**September, 2019.**

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HOUSEHOLDS: CASE STUDY OF SMALLHOLDER FARMERS IN JOWHAR DISTRICT, SOMALIA**

**A research project submitted to Van Hall Larenstein University of Applied Sciences in partial  
fulfilment of the requirements for the degree of Master in Management of Development with  
specialisation (Rural Development and Food Security)**

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**September, 2019.**

**Supervised by: Dr. Suzanne Nederlof, PhD**

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Last and most important is my Allah who has gifted me with life. Through him all things are possible.

### **DEDICATION**

This work is dedicated to my parents, My father Ali Addow and My Mother Amina Barre and my siblings and all the people of Somalia.

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## **LIST OF ABBREVIATIONS**

DAO	District Agricultural Officers
DFID	Department for International Development
FANTA	Food And Nutrition Technical Assistance
FAO	Food And Agriculture Organization
FGD	Focused Group Discussion
FHH	Female Headed Household
FSIN	Food Security Information Network
FSNAU	Food Security and Nutrition Analysis Unit
GIEWS	Global Information And Early Warning System
HDDS	Household Dietary Diversity Score
ISFP	Initiative on Soaring Food Prices
IUCN	International Union For Conservation Of Nature
KII	Key Informant Interview
MoA	Ministry of Agriculture
OCHA	Office For The Coordination Of Humanitarian Affairs
OECD	Organization For Economic Cooperation and Development
PWA	Post-War Average
SLF	Sustainable Livelihood Framework
SSI	Semi-Structured Interview
UNDP	United Nations Development Program
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
UNPD	United Nations Population Division
UNPO	Unrepresented Nations and Peoples Organization
USAID	United States Agency for International Development
WFP	World Food Programme



## ABSTRACTS

Concerns about insufficient food access have resulted in a greater policy focus on incomes, expenditure, markets, and prices in achieving food security objectives. The main aim of the study is to understand the determinants of food accessibility for female-headed households in Jowhar district, Somalia this will guide and lead the Ministry of Agriculture to develop effective strategies and interventions to promote food accessibility to improve food security for the female-headed households.

The study focused on two villages in Jowhar District which are Bananey and Kalundi and selected for safety and security reasons compared to other villages who experience occasional insecurity cases. The sample size was twelve female-headed households because the study was mainly focused on FHHs to understand in depth and to explore more on the complexities on food accessibility, and three male-headed households to find out the difference on food accessibility in both villages. In addition, qualitative investigations were conducted in the form of two FGDs comprising 6-8 participants each one with female-headed households and one with male-headed households in order to compare and also to explore more on complexities on food accessibility related issues. semi-structured interviews (SSI), Dietary Diversity Score tool as a part of SSI, key informant interviews (KIIs) and focused group discussions (FGDs) were used to collect primary data. The data was descriptively analyzed using content analysis.

Findings indicated that drought and pests and diseases were the common shocks facing FHHs. The harsh weather affects crops more so vegetables and cereal crops (maize, millet, sorghum). Pests and diseases mainly affected vegetables and fruits which took a short duration to grow. The dependency level in the region was found to be very high. Increase in food prices was bought about by food shortages and this usually led to households foregoing balanced diet. Lack of education affected the opportunities given to women in terms of formal jobs and well-paying employment. Productive labor to FHHs was mainly from close male relatives such as sons, brothers and fathers. Male relatives are important as they acted as work assistants and protectors to women doing business. Lack of credit limited the expansion of FHHs respective enterprises hence affected provision of food to their households. FHHs are involved in selling vegetables, mangoes and snacks among others. The common types of casual labor among women in FHHs are washing clothes, cleaning offices, and cultivation among others. Households minimized their food intake during the dry season. The food decrease left them with fewer options of survival hence they tried to consume lesser food. They also took cheap and available foods due to insufficiency of income. The study further concludes that livelihood strategies applied by FHHs are farming, casual labor, and petty trading. farming reported was in form of both crop production and livestock keeping.

The study finally concludes that to control over income within their households FHHs minimized food intake, took cheap foods, skipping meals and relied on relief food. The findings of the study was intended to guide the Ministry of Agriculture to develop effective strategies and interventions to promote food accessibility to improve food security for the female-headed households. Therefore, in our recommendations the Ministry of Agriculture introduce laws that allows women to own land or have equal rights with their partners. The Ministry of Agriculture advised also to seek alternatives of providing enough water for the households in the region through drilling boreholes. Subsidies on agricultural inputs to encourage FHHs to do farming as well as education and training to women in female headed households. The Ministry of Agriculture needs to introduce a research department in Jowhar district to help cope with pests and diseases.

## **CHAPTER ONE**

### **1.0 INTRODUCTION**

This chapter covers the background of the study on food accessibility as well as the problem statement highlighting the complexity of food accessibility for female-headed households in Somalia. The research objectives and research questions are also discussed in this chapter. The thesis is structured into six chapters. Chapter one covers the introduction, chapter two focuses on literature review while chapter three entails the research methodology. Chapter four covers the findings while chapter five is on discussion. Finally, chapter six covers the conclusion and recommendation of the study.

### **1.1 Background**

About one billion individuals (16% of the world population in developing countries) are projected to be undernourished (Capaldo, et al., 2010). The majority of the people experiencing food insecurity are small scale farmers, mostly women, and children (Bold, et al., 2013). Around half a billion small scale farmers are estimated to feed a total of two billion people (FAO, 2015). Despite the fact that the solid duty of global foundations and the endeavours directed to achieve the target to half, individuals experiencing hunger, food instability still represents one of the greatest difficulties in developing countries (FAO, 2008).

Sub-Saharan Africa is home to probably the most nutritiously unstable individuals in the world (Adato & Hoddinott, 2008). Bad infrastructure and constrained resources in addition to strife, HIV and inaccessibility to health services are some of the factors that contribute to food insecurity and malnutrition in the Region (Davis, et al., 2016). In spite of these tremendous difficulties, a few nations in Africa are gaining ground towards nourishment and food security (Fanzo, 2012). However, access to food continues to be a noteworthy challenge in many African countries as most diets in these countries consists of grains or root stable crops with little proteins, vegetables, and fruits (Fanzo, 2012). The latter is not easily accessible due to cost, unavailability or little information concerning their importance in the diet (Garcia & M. T. Moore, 2012).

In Africa, studies have shown that women are more involved about food crop production than their male counterparts (FAO, 2011). In Sub-Saharan Africa, 60% of labor on crop production is by women. They also play a key role in animal production (FAO, 2012). Despite the hard work of women in producing food they often do not manage to produce enough to feed the family. The challenge is highly manifested among the female-headed households who are reported to experience food shortage from time to time (Spielloch, 2009). In many African countries, women are not allowed to own land and for decades, this has acted as their greatest challenge. According to Guendel (2009) lack of money limits female headed households on the number and types of crops to grow. They thus rely on either small plots of land that does not allow to produce enough crops (Hill, 2011).

A study conducted in Ghana by Goldstein & Udry, (2008) found out that lower yields were realized by women on farming done on same hectare of land. Women thus garnered less profit for their crops. In Nigeria, Ashagidigbi, et al., (2017) revealed that several factors such as household size, age and marital status influenced food security among households headed by women. In Ethiopia, Kebede (2009) in comparing food security for male-headed households and female-headed households concluded that the latter experienced low level of food security. He further indicated that food insecurity by FHHs was brought about by low production within the season and insufficiency in terms of food requirements (Kebede, 2009).

In 2018, OCHA estimated that about 2.7 million people in Somalia were experiencing food insecurity (OCHA, 2018). Food accessibility in Somalia is mainly hampered by factors such as insecurity, drought, and floods (FSIN, 2019). Armed clashes occurring in some parts of Somalia have affected agricultural activities while at the same time hindering food accessibility from other areas (GIEWS, 2019). A total of 1.6 million people have been displaced owing to drought crises in the country (OCHA, 2018). These predicaments have seen the number of female-headed households increase as men move to other areas in search for alternative sources of income (UNPO, 2017). Men who are killed during war or have become involved with terrorist activities leave behind women and their children hence becoming household heads. The number of FHHs has by 2019 exceeded half of households in Somali (OCHA, 2019).

Reports show that female headed households are poorer than male headed households. FHHs are vulnerable to frequent evictions, rape and in most cases poor pay (OCHA, 2019). They are also limited on the kind of farming to engage in as common practices such as pastoralism are mostly done by men (FSNAU, 2012). Most of the problems such as poverty, economic insecurity faced by FHHs in Somalia have not been documented as there are no studies that comprehensively cover the concept. This study conducted an in-depth study to understand the complexity of food accessibility for rural female-headed households in Jowhar district, Somalia.

## **1.2 Research Problem**

One of the strategic objectives of the Ministry of Agriculture (MoA) is to ensure sustainable food production and accessibility by all the people. Crop production in Somalia declined to 46% of 1991 post-war average (PWA) (FSNAU, 2018). Food insecurity is exacerbated by increased food prices, lack of income opportunities, limited humanitarian assistance and the recent ban on some humanitarian agencies from the regions controlled by the Al Shabaab militants (OCHA, 2018). Concerns about insufficient food access have resulted in a greater policy focus on incomes, expenditure, markets, and prices in achieving food security objectives. Many interventions have been implemented by the Ministry of Agriculture (MoA) in Jowhar District, however, to make a lasting difference a focus on interventions that focuses to support women is key. To be able to do so, the MoA wants to understand the complexity of food accessibility for rural female-headed households in Jowhar district.

### **Missing information/Knowledge gap**

MoA has identified the problem that female headed households have less access to food and is therefore in need of knowledge on the challenges of food accessibility faced by households in particular those headed by women. In the case of Jowhar district, there is information on female-headed household food insecurity in general, yet information on challenges of food accessibility faced by female headed households is clearly lacking. Hence the purpose of this study was to address this knowledge gap on the complexity of food accessibility for female-headed households that would help to recommend the Ministry of Agriculture to plan and implement appropriate interventions to address the food accessibility issues in Jowhar district.

## **1.3 Research Objective**

The main aim of the study is to understand the determinants of food accessibility for female-headed households in Jowhar district in Somalia. The findings of the study might guide the Ministry of Agriculture to develop effective strategies and interventions to promote food accessibility to improve food security for the female-headed households.

Food accessibility as a pillar of food security was selected in this case, because there are so many factors (social, economic, political) that limits accessibility (either by own production or purchase from the market) within the households.

#### **1.4 Main Research Question**

How is the complexity of food accessibility for female-headed households in Jowhar District, Somalia?

#### **1.5 Sub Research Questions**

- i. What is the local vulnerability context faced by female-headed household in accessing food?
- ii. What are the livelihood assets owned by the female-headed household that influence food accessibility?
- iii. What are the livelihood strategies practiced by female-headed households in achieving food accessibility?
- iv. How is the control over income within the household?

## **CHAPTER TWO**

### **2.0 LITERATURE REVIEW**

This section focuses on literature related to food accessibility. It conceptualizes the complexities of food accessibility. Further within the chapter are definitions of terms related to food security. An operationalisation of variables is also provided.

#### **2.1 Definitions of key concepts**

##### **Food Security**

It is a situation in which each individual has access to well-balanced food all the time, to be able to meet their daily dietary requirements for active and healthy living (FAO, 2015). Pillars of food security include food availability, accessibility, utilisation, and stability.

##### **Food availability**

It is the supply of sufficient quantities of food of appropriate quality, from both natural and cultivated systems (IUCN, 2013).

##### **Food accessibility**

It is the physical and economic access to available food to ensure that all households and all individuals within those households have enough resources to obtain food for a healthy life (Ko, et al., 2018). It depends on the level of household resources, like financial capital, labor, and knowledge on prices. Access to food is determined by entitlements to food. Stocks of assets, physical and human capital, common property resources access and variety of state, community, and household level contracts are routes to entitlements (Sen, 1981). Food accessibility by households can be obtained through consumption, production and receiving gifts from other households (USAID, 2006). So, this study emphasis on complexities of food accessibilities in female headed households.'

##### **Food utilisation**

Refers to use of proper food processing and storage methods, application of satisfactory information of nutrition and youngsters care practices and existence of passable hygiene and health services (USAID, 2006).

##### **Food Stability**

Refers to a situation whereby there is sufficient and adequate food which is easily accessible on a sustainable basis (IUCN, 2013). According to Jrad, et al., (2010) it is the continuous supply of enough food all year round without scarcities.

##### **Household**

Household is defined as a social unit composed of those living together under the same roof for the past three (3) months (Ellis, 2003). For the purpose of this research, the household is considered as the social unit which lives in the same place, share same meal and make decisions over resources.

##### **Female-headed household**

According to World Bank, (2009) demographic definition of female-headed households, two main types are described; De jure female-headed households referring those where the male head is permanently absent as a result of death or divorce. On the other hand, de facto female-headed households where the husband is temporarily absent from the home half or more of the time. Often these households may be supported by male partners who are migrant workers but still play a role in decision making and income

contribution. In this study, women run the economic affairs and decision-making of the households. These women include widows, divorces. The FHHs get no support from their male partners and they independently took care of their households' issues.

## **2.2 Vulnerability context**

Vulnerability context is external environment in which people live their lives, and refers to the shock which is sudden and often unpredictable events in the external environment, trends is gradual changes in external environment over time, and seasonality which is seasonal changes in external environment (Ellis, 2003).

Widely accepted empirical findings show that access to adequate and sufficient food in many countries is unstable (FAO, 2009). That is, regardless of the specific measurement adopted many households frequently move in and out of a state of under-nutrition, suggesting that the notion of food insecurity is best thought of in a dynamic sense. Most food-insecure households live in poverty and are highly vulnerable to external shocks (OECD, 2009). In rural areas of southern African countries, a large proportion of the rural population also experiences transitory vulnerability for seasonal reasons (Ellis, 2003). Shocks occurring in this period, for example, floods or conflict or a sharp downturn in economic activity are likely to push people over the edge, even though at other times of the year they may be more resilient.

The distinction between chronic and transitory vulnerability adds value if its application in a policy context results in better-designed safety net interventions, the improved capability of predicting the onset of a crisis, or more effective pro-poor growth strategies (Burchi, et al., 2016).

According to Badolo & Kinda, climatic fluctuation can affect food security in third world nations through a few channels: rural income generation, family units' wages, food costs, monetary assets, and civil clashes (Badolo & Kinda, 2014). Climatic unpredictability can affect food security through agrarian creation. For the time being, precipitation changeability and outrageous occasions, lessen homestead yields and diminishing farming salary, close by family unit and national food accessibility. Climatic changeability can likewise affect rural labour markets by lessening livelihoods and diminishing the interest for products in affected zones (Nhemachena, et al., 2010).

Dell et al. (2008) demonstrated that climatic stuns seriously sway financial development in creating nations by decreasing absolute efficiency, farm yields, and speculations. This lessens the capacity of nations to purchase food on universal markets; to expand interests in framework, administrations, and innovation that help food generation; and to back open products, for example, wellbeing and instruction administrations. Climatic fluctuation influences food security through food costs. By decreasing food accessibility in business sectors, climatic changes can build food costs and diminish food availability (Dell, et al., 2008).

Examples of vulnerabilities experienced in Jowhar district are drought, price fluctuation, conflicts, pests, diseases, and low yields, the increased vulnerability of the households in Jowhar adversely limit their ability to access food (Mackey & Gol, 2018). The vulnerability can be categorised as transitory or chronic. Transitory vulnerability (also referred to as seasonal vulnerability) occurs in the last few months before the next food source is available and challenges such as drought prolong its access (Ellis, 2003). Chronic vulnerability denotes persistence of the state of being vulnerable for instance being unable to access food due to economic or physical reasons (Ellis, 2003).

This study looked at the vulnerability context in Jowhar district in terms of trends, shocks and seasonality facing female headed household.

### **2.3 Livelihood Assets**

Under the Sustainable Livelihood Framework (SLF) are the different assets to help secure household livelihood. Five capitals under the SLF are human capital, natural capital, social capital, financial capital and physical capital (Scoones, 2009). Human capital is significant capital that regulates the utilization of other capitals it encompasses skills, knowledge, labor, and health. Natural capital is the natural resources from which valuables needed in a household come from. Social capital refers to all forms of social resources such as social networks, relationships and associations. Financial capital is yet another vital asset that facilitates food security. It refers to the financial resources employed by the household to meet their livelihood needs (DFID, 2000 ).

Access to food is ensured when all households and all individuals within those households have sufficient resources for acquiring the appropriate foods that make up a nutritious diet. Whether this can be achieved depends on the level of household resources (capital, labour, and knowledge), food prices and the presence of social safety net (Hilderink, et al., 2012). Most food-insecure households have few or no assets, no land or just a very small plot of land, and a high dependency ratio (De Muro, 2015). Most are also extremely vulnerable to external events such as droughts, floods, and price fluctuations. When they experience such shocks, they often have to adopt “negative” coping strategies, such as reducing food consumption, selling productive assets, shifting production to more stable, lower-productivity crops, or taking children out of school (FAO, 2015).

Raising the living standards of these households is likely to make the biggest contribution to alleviating hunger and, broadly speaking, food insecurity in general terms (OECD, 2009). This opens ample scope for social protection interventions. Social protection means “policies and actions which enhance the capacity of poor and vulnerable people to escape from poverty and enable them to better manage risks and shocks” (OECD, 2009). It can have both a “presentational function”, i.e. preventing households just above the poverty line from falling into the poverty trap by helping them to better manage risks and deal well with shocks, and a “protective function”, i.e. lifting households above the poverty line (FAO, 2012).

Using the SLF approach, this study determined the existing human capital, natural capital, financial capital and social capital influencing the livelihoods of female headed households in Jowhar district.

### **2.4 Livelihood strategies**

Livelihood strategies encompass all the activities and practices that jointly facilitate how an individual or household manage their living. It also refers to what households do to achieve their desired outcomes with the assets they have. A study by Kamanga, et al., (2009) showed that in addition to growing of crops as livelihood strategies in Malawi, FHHs also go into forests in search of natural resources like firewood and grass, among other items. Many FHHs in Malawi perceive the forest as a source of livelihood income meanwhile most of them lack access to land for farming purposes. They use the forest for the roof of their small houses and sometimes for sale to generate income.

The World Bank revised its strategies for development on the African continent. The World Bank acknowledges that “even redistributed growth and productive employment may not be enough for the chronically poor, who suffer from food insecurity and under-nourishment”. The Bank, therefore, focuses on reducing the vulnerability of the poor by building resilience to “droughts and floods, food shortages, macroeconomic crises. The resilience-building strategies include establishing permanent social safety nets for the chronically poor and food insecure, such as near-cash transfers or food vouchers, conditional and non-conditional cash transfers and food distribution schemes (World Bank, 2011).

The FAO issued an official warning about inflation in food prices worldwide, in 2007 and established the Initiative on Soaring Food Prices (ISFP) in December of that year to strengthen the ability of the poor to combat further shocks such as; market volatility, financial crises and natural disasters (FAO, 2008). Extreme weather events and increases in temperature and precipitation variability have a variety of negative impacts on those who rely on agriculture including increased crop failure and increased pest and disease presence (FAO, 2008).

## **2.5 Concept of food accessibility**

The extent to which each member of a household has access to sufficient food depends on several factors such as gender, age, and employment status (Benson, 2004). A similar report on food accessibility which is associated with physical and financial related assets, just as by social and political components was reported (FAO, 2009). However, the purchasing power of households is the most critical determinant for food access. Purchasing power depends on various pricing policies and market conditions (WFP, 2007).

Access depends normally on financial resources to the family, the appropriation of pay inside the family, the cost of food, access to market; and social and institutional privilege/rights. At the national dimension, food security exists when all individuals consistently have the physical and monetary access to adequate, protected and nutritious food to meet their dietary needs and food inclinations for a dynamic and solid life. At family level, food security infers physical and monetary access to food that is satisfactory as far as amount, quality, wellbeing and social availability to address every individual's issue (Kuwornu et al., 2011).

The Household Dietary Diversity Score (HDDS) is a proxy measure of household food consumption that reflects household access to adequate and quality of foods and is also a proxy indicator for nutrient adequacy of individual diet (FAO, 2011).

The access dimension is about having sufficient resources for individuals and households to obtain appropriate foods for a nutritious diet and is strongly interwoven with poverty and the purchasing power that people have to buy food on the market. Indicators, such as income and income distribution, food prices, access to food markets, and infrastructure, are used to illustrate this dimension. The final outcome is the level of undernourishment which is derived from the average availability of food in calories per person per day (FAO, 2011).

## **2.6 Factors influencing food accessibility**

Food access, which is usually influenced by market purchases, and food transfers. Market purchases are affected by the prices of food and the cash income available to households. Hence a high purchasing power is relevant for households to access food. On the other hand, cash income obtained by households or individuals is largely affected by the combination of resources available to these households be it a natural asset, financial assets, social or human assets. Food transfers are those obtained from governmental or non-governmental organizations, community support systems and food banks (USAID, 1992).

In addition to the three main sources through which food is accessed, the World Food Programme's (WFP) household food access highlights other food access means such as gathering, fishing or hunting. These are usually food harvests from the natural environment. Households could generate cash income sales of food from their own production, gathering or hunting from the wild, or sales of food receipts. Other prominent sources of cash income include formal employment, direct cash transfers, or engaging in trading activities. These incomes are necessary because they are used in financing food purchases and non-food expenditures including the accumulation of assets for the household (WFP, 2005).



According to Abu & Soom (2016) limitations, for example, inadequate access to credits, insufficient land accessibility, and destitution, soil infertility, absence of income generating activities, stockpiling and cultivating issues as a portion of the variables militating against the accomplishment of food security. Zakari *et al.* (2014) uncovered that the sex of head of the family unit, poverty, work supply, flooding, access to market, road infrastructure and food help are huge components impacting the chances proportion of a family unit having enough daily food.

Ahmed *et al.* (2017) also argued that farm households see an increment in food costs, crop illnesses, absence of water system and increment in wellbeing costs as real existing dangers. Further, the size of family, month to month salary, food costs, costs of health and obligation are principle elements impacting the food security status of families in rural areas. Besides, the market availability factors do fundamentally influence the small cultivating family food security (Ahmed , et al., 2017).

Chauvet & Guillaumont (2009) have argued that foreign aid is increasing production in developing nations, by enabling financial development to turn out to be progressively steady. By settling the financial assets, foreign assistance adds to the decrease of the unsteadiness in public investment. Foreign aid can alleviate the impact of climatic stuns on food accessibility in receiver nations through the susceptibility of the nations on food price stuns.

## **2.7 Sex of household head and food insecurity**

Several studies De Cock (2012); D’Haese *et al.* (2011) have argued that female-headed households are more likely to be vulnerable to food insecurity and poverty as compared to their male counterparts (Kassie *et al.*, 2012). Carter *et al.* (2010) found that incidents of food insecurity are much higher for female-headed households compared to male-headed households. Females are most likely to take care of their extended families, and usually sacrifice their food intake to feed other members of their household when threatened by food insecurity and moreover they are most likely to be single parents than their male counterparts.

Olabisi & Olawamiwa (2014) findings showed that compared to male-headed, female-headed households were more food insecure. Omolo (2010) found that women were more vulnerable than men in the rural Turkana region of Kenya. In yet another qualitative study, Kakota *et al.* (2011) found that exposure and sensitivity to climate risks varied between male and female farmers in the southern and central areas of Malawi.

A study by Nabikolo *et al.* (2012) in Uganda amongst small-scale farmers in Kenya found that adaptation decisions varied between male and female heads of households. Mengistu (2011) in Ethiopia found female-headed households to be more vulnerable. Similar observations are made by Nielsen *et al.* (2012) in the Democratic Republic of Congo and Giesbert & Schindler (2012) in Mozambique. Most recently, Kassie *et al.* (2014) measured the household food security gap between male and female-headed households in Kenya and found that it was attributed to differences in endowment and characteristics.

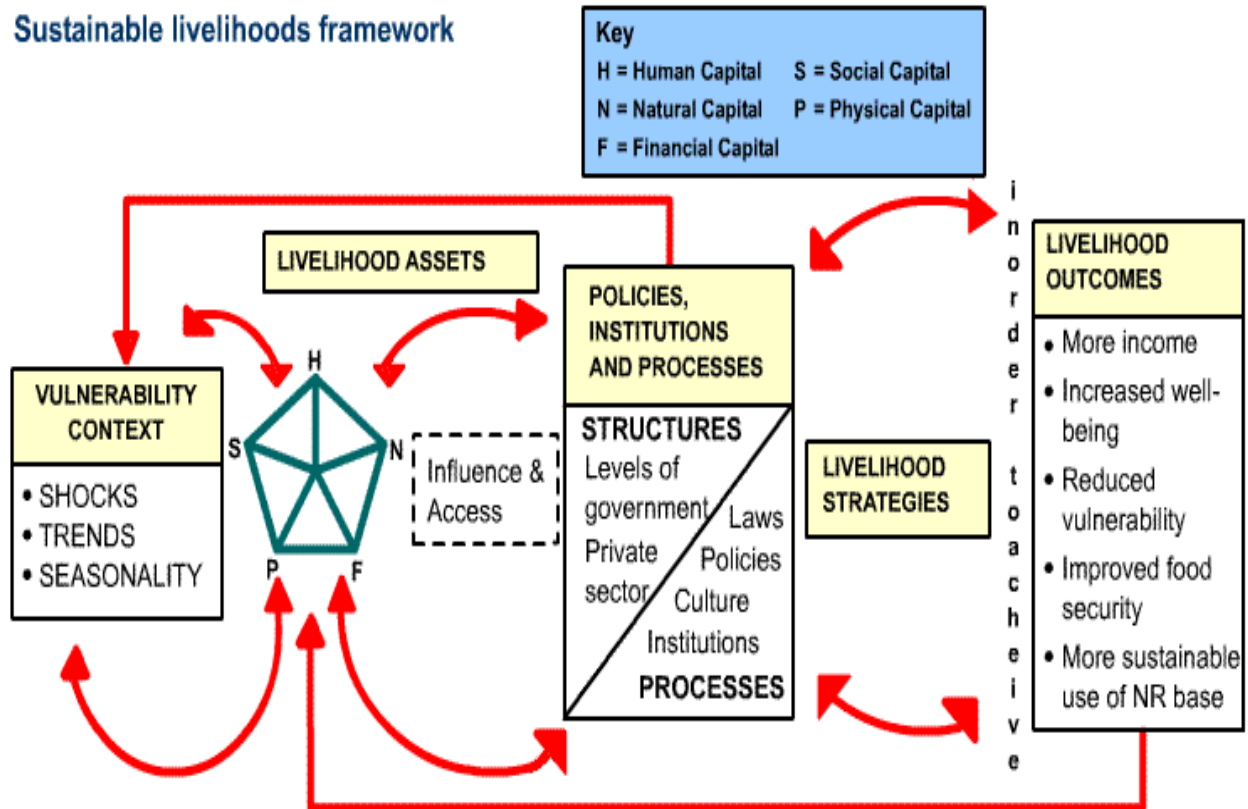
## **2.8 The conceptual framework of the study**

This research uses the sustainable livelihood framework to understand the complexities of FHHS face. It helps us explain the vulnerability contexts, the livelihood assets (capitals), and livelihood strategies in relation to their livelihood outcomes and achievements (Scoones, 2009).

In order to answer the research questions and meet up with the research objectives, the researcher used the SLF: data was gathered on the Vulnerability context, livelihood assets, and livelihood strategies. The livelihood outcomes was also explored to analyse the food accessibility of the households under the study. The reason for using SLF is to have an overview of the main factors that affect people’s livelihoods and

their relationships. Further, it provides insights into important issues, their influences, and processes on the interactions of the different factors that affect livelihoods.

**Figure 1: Sustainable livelihood framework**



Source: (DFID 1992)

## CHAPTER THREE

### 3.0 RESEARCH METHODOLOGY

Chapter three covers the step by step procedure on how, where, when and from whom data was gathered. The chapter thus covers the research design and strategy, study area, data collection, and study sample. Further, the chapter focuses on the data collection instruments, procedures, and piloting of the data. Finally, the chapter covers the data analysis technique, research plan, limitations encountered during research process and ethical considerations.

#### 3.1 The study area

Jowhar district is in Middle Shabelle region which is in the central part of Somalia. Jowhar covers an area of 90 km along a major road north of the national capital of Mogadishu. The district lies about 90 kilometers north of the capital Mogadishu. The area population is estimated to be 269,851 (UNDP, 2014).

**Figure 2: Map of Somalia showing the location of Jowhar District.**



**Source:** Author, (2019)

Three livelihoods of the people in the district include pastoral, agro-pastoral and riverine with the majority of the population being agro-pastoralists. Jowhar's sources of food include both livestock and crop farming inclusive of maize, beans, rice, sorghum and sesame, and horticultural crops. The study focused only on two villages (Bananey and Kalundi) which are located in Jowhar District. The justification for selecting these two villages was because they were easily accessible to the researcher during the duration of the fieldwork. In addition, they were under government control, so safety was guaranteed, and lastly there has not been any recent incidents of violence in the two villages, compared to other villages who experience occasional insecurity cases.

#### 3.2 Research Strategy and Design

My study took on a qualitative research method to cover female heads of households that care for their own children independently and without support from male partners. Qualitative methods were used to explore and understand the complexity of food accessibility of FHHs in Jowhar, Somalia. Qualitative methods were effective because they prompt researchers to carry out a study in its natural setting with the actual group of respondents in their locality (Creswell, 2009; Silverman, 2010). While in the field, I

carried out all data collection activities because I am conversant with Somali language and I did not need translation.

On the other hand, research design can be understood as a plan that directs how the study is to be conducted, while providing the framework for the collection and analysis of data (Baarda, 2014). Case study design was adopted for the purpose of this study. A case study is a research technique involving an in-depth analysis of a certain subject (Yin, 2010). It is further useful in discovering relationships between objects, functions or people (Cooper & Schindler, 2008). The case study was done on complexity to food accessibility in FHHs in Jowhar district in Somalia. Data was collected from July-August 2019. I opted for a case study because it enabled me to obtain a holistic and in-depth understanding complexity to food accessibility in FHHs in the study area.

### **3.3 Study Sample**

The study used purposive and snowball sampling methods. Purposive sampling was utilized in identifying households that are headed by women and independently took care of their households' issues without any support. FHHs whose husbands had migrated were excluded in this study. The reason for excluding them is because they received constant income from their husband and therefore experienced no economic difficulties even with the physical absence of their husbands.

Purposive sampling is a form of non-probability sampling in which decisions concerning the individuals to be included in the sample are taken by the researcher. The decisions are usually based upon a variety of criteria which may include specialist knowledge of the research issue, or capacity and willingness to participate in the research (Oliver, 2006). In addition, I used purposive sampling because of the prior knowledge I had about Jowhar district. Purposive sampling is suitable because it enables one to study a group of people with common characteristics (Speck et al., 2012). Snowball sampling is a non-probability sampling technique where existing study subjects recruit future subjects from among their acquaintances (Morgan, 2008). Snowball sampling is often used in hidden populations which are difficult for researchers to access, thus as the sample builds up, enough data are gathered to be useful for research (Laws, et al., 2013). I used snowball sampling for the key informants.

The sample size is a way of determining the items or individuals from the entire target population to be part of the study (Cresswell, 2014). The study focused only on two villages in Jowhar District which are Bananey and Kalundi and selected for safety and security reasons. The sample size was twelve female-headed households because the study was mainly focused on FHHs to understand in depth and to explore more on the complexities on food accessibility, and Three male-headed households to find out the difference on food accessibility in both villages. In addition, qualitative investigations were conducted in the form of two FGDs comprising 6-8 participants each one with female-headed households and one with male-headed households in order to compare and also to explore more on complexities on food accessibility related issues.

### **3.4 Data collection methods**

Data was collected by the use of both primary and secondary means of data collection. The following instruments were used to collect primary data; semi-structured interviews (SSI), Dietary Diversity Score tool as a part of SSI, key informant interviews (KIIs), focused group discussions (FGDs).

Secondary data was obtained from documents related to the existing studies and reports; data available on food accessibility of rural households in Somalia. The information available from various sources

helped to develop a comprehensive understanding of the situation, which served as a starting point for deeper analysis through primary data collection.

### ***Semi-structured interviews***

The study aimed at understanding the complexity of food accessibility for female-headed households. Semi-structured interviews (SSI) targeted FHHs with smallholder farmers. The reason for using the SSI was to allow the respondent and interviewer to engage in a formal interview. The SSI gave the respondents the chance or freedom to express themselves in their own terms. Additionally, the SSI provided the researcher an in-depth, reliable and comparable quality data because respondents who were not able to elaborate more on the subject matter during the Focused Group Discussion due to personal reasons could have the opportunity to do so. The researcher included a total of twelve (12) females who responded to the questions. The study further selected a total of three (3) men who were the head of their households to help compare the information from FHHs.

**Photo 1: Semi-structured interviews**



**Source:** Author (2019)

### ***Key informant interviews***

KIIs were used in collecting data from government officials – Regional Agricultural Coordinator, District Agricultural Officers (DAO) and community leader. KIIs involved a total of Three respondents. The researcher used snowball sampling to select the respondents who had relevant information on food accessibility among female-headed households. The respondents were expected to relay information on interventions being implemented in Jowhar district and could also provide in-depth information on food accessibility challenges in the district.

**Photo 2:** Key informant interview to a DAO



**Source:** Author (2019)

***Focused group discussions (FGDs)***

FGDs were held with different stakeholders mainly female in Jowhar district. The FGDs aimed at obtaining information and to explore more on the complexities related to the vulnerability context and how livelihood assets owned influence food accessibility. The respondents were also engaged in discussions on alternative strategies that could help improve food accessibility in the area. The FGD focused on generating additional information which might be left out.

**Photo 3:** Focused group discussion with women in FHHs



**Source:** Author (2019)

### **Household Dietary Diversity Score (HDDS)**

The HDDS was used to measure the dietary intake of individual household. The Dietary Diversity Score is a qualitative measure of household food consumption that reflects household access to adequate and quality of foods and is also a proxy indicator for nutrient adequacy of individual diet (FAO, 2011). The HDDS were used to collect and calculate the household's food access. It was also used to measure the different types of food groups consumed over a 24 hours period. The accumulation of more diversified food crops increases the dietary diversity score of households as a result of an increase in consumption. Questions about the consumption of different types of food groups were asked to the person who was directly involved in the preparation of food. A questionnaire containing 12 food groups was designed and used to measure the dietary diversity scores (see appendices). The interview was conducted with the person in charge of preparing a meal in the house.

### **3.5 Data Analysis**

The data was descriptively analyzed using content analysis. The arising themes from each objective were noted. Data analysis consisted of a processed approach under which due focus was given to ensure the reliability of the dataset. The process consisted of three steps including data cleaning, data tabulation, and data analysis. Data cleaning was undertaken to ensure there are no outliers within the dataset. Data tabulations were generated for basic analysis which was followed by an advanced data analysis by the researcher. Finally, Excel was used to display field data in a presentable way.

### **3.6 Research plan**

The data collection and processing took eight weeks and started within the last week of June and ended the last week of July. The researcher obtained administrative approval to collect data. Preliminary field visit to the research sites was done with community leader in the last week of June. The community leader introduced the researcher to the interviewees and who were briefed on the coming up interview as well as the time of interview. Data collection started with an interview with the respondent, followed by focus group discussions and finally with the key informants.

### **3.7 Limitations of the study**

The study required me to cover two villages in Jowhar district. The district covers a huge distance and it was therefore difficult traversing through the villages. To counter the challenge, I engaged the services of personnel with motorbike who took me around the area. The respondents targeted under this study are mainly illiterates and not conversant with English language. I had to prepare a different set of questions in a language that they could understand. This consumed a lot of my time since I had to translate their response thereafter. In order to save time, I recorded their response and translated during my free time. I was intended to interview the three categories of FHHs (Widow, Divorce, and married but her husband has migrated), but unfortunately I didn't interview the married female due to cultural restrictions. Her disagreement to participate in my study was out of perceived cultural fear that does not allow women to talk to a stranger in the absence of husband and relatives.

### **3.8 Ethical Considerations**

Before conducting the interviews, I sought permission from the area chiefs who also helped me in identifying the female headed households in Jowhar district. I assured the participants that the research was voluntary, and they were free to object being interviewed if they felt uncomfortable with the exercise. Further, I guaranteed the respondents that they were to remain anonymous and for that reason this study used pseudonyms in identifying the respondents and they agreed to participate.

### 3.9 Reflection role as researcher

In order to successfully complete the Master program and fulfill the requirement, the MoD students are required to carry out a research and field work under the supervision of assigned supervisor; therefore, I was required to conduct a data collection in my country (Somalia) for the period of six weeks.

The lack of knowledge of research was one of my greatest challenges as a student and mid-career professional. Since I knew my pitfall as a student, I immediately started reading literature on research and reading other thesis done by people all around the world. This way, I thought of gaining some insight before my thesis preparation. This method helped me a lot in preparing for my research proposal.

During my proposal writing, it was very difficult for me to come out with a good research objective, research questions, literature reviews, and good research methodology, but with the help of my supervisor, other teaching staff and peers, I was able to walk through the challenge.

My research works started with developing of my research plan and approval by supervisor and assessors. I had several consultation meetings with my supervisor to receive her feedback on various section of my plan particularly on research topic, objectives, research questions, methodology, and interview checklists. Before I left to my country and began the data collection, I had test my interviews checklists and checked whether they are prepared according to the research objectives or not.

My past work experience might have influenced in obtaining the information from the study area. As I am very familiar to the study area, they might have shared me the information to please me rather than the ground reality. On the other hand, I felt that due to my closeness with the people of the study area, they did not hesitate to share the ground reality as I result, I believe, the information is generated at the best. While, incentives provided to them in the form of refreshment may have also positively influence the finding. However, I told the respondents to voice out the ground reality.

While conducting the research work in my field, the conceptual framework was found very useful as it guided me to align my objectives, framing research questions and to prepare interview checklist deemed for collection. It further guided me to outline all the procedure right from the introduction section till the conclusion and recommendation. This conceptual frame work guided me to follow up the activities that will eventually help to answer the research questions, while it helped me to fulfill the goal of the study at the same time. Without framework, I could not have come up with this report. Initial I did not have exact idea on the exact role of the conceptual framework, but I understood at the end of the study that it was like a driver of car, who can lead you to your destiny. I believe without conceptual frame work; the researcher will not have clear direction to do the research and may end up writing unwanted and omitting required information. In the coming years, this is going to be useful to write other research works.

Focus group discussion was enriching as it helped me to cross check the individual responses and findings with them. I had two focus group, one with male headed household and another with female headed households. I felt I should have done a mixed group of MHHs and FHHs to understand on their stand on the pertaining issues. I felt having separate FGD can't generate ample result. I should have organized joint FGD instead of separate FGD. The closeness with the key informants might also helped me to generate required information and in validating the data with the individual respondent findings and FGD.

Feedback from my supervisor was very critical and it confused me at times when he shared his neutral opinion, but it was realized that I was not thinking out of box. Realising it, I took my own decision to adapt to the feedbacks as it help me learn more dependently. There was fear at times whether am I doing in



right way. In fact, it helped to broaden my knowledge. Her timely support has enabled to complete my report on time. There were times when supervisor was providing valuable feedbacks and upon incorporating the change, the paper set up got distorted. I felt it was extra work for me. But at the end, the changes were meaningful, and it strengthened the research quality. Eventually, I was confident enough to do my research by own.

The finding of the study will help and guide MoA to put interventions that will help FHH to overcome the challenges of food accessibility.

## CHAPTER FOUR

### 4.0 RESULTS AND FINDINGS

Under this section, the findings are presented based on the study research questions. The first sub-section is on the local vulnerability context faced by Female Headed-Households (FHHs) followed by livelihood assets owned and their influence on food accessibility. Subsequently, livelihood strategies are discussed and the control over income by the households.

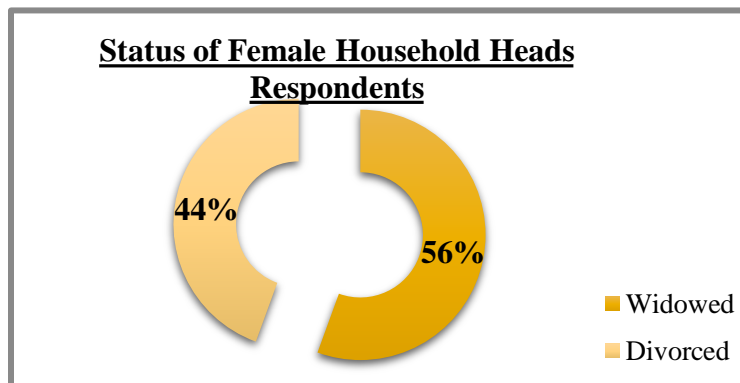
#### 4.1 Description of the Area

The study was conducted in two villages (Bananey and Kalundi) in Jowhar District. Jowhar district is in Middle Shabelle region which is in the central part of Somalia. Jowhar covers an area of 90 km along a major road north of the national capital of Mogadishu. The district lies about 90 kilometers north of the capital Mogadishu. The area population is estimated to be 269,851 (UNDP, 2014). The livelihoods of the people in the district include pastoral, agro-pastoral and riverine with the majority of the population being agro-pastoralists. Jowhar's sources of food include both livestock and crop farming inclusive of maize, beans, rice, sorghum and sesame, and horticultural crops.

#### 4.2 Respondents Profile

In Jowhar and other parts of Somalia, FFHs bear some the features that discussed below. The study interviewed twelve (12) FHHs and three (3) male headed households (MHHs) in the study area. From the study, we can say that divorce and death of the male household head can be considered as the main factors leading to FFHs estimated at 44% and 56% respectively as per the field data. Figure 3 shows the status of female household heads.

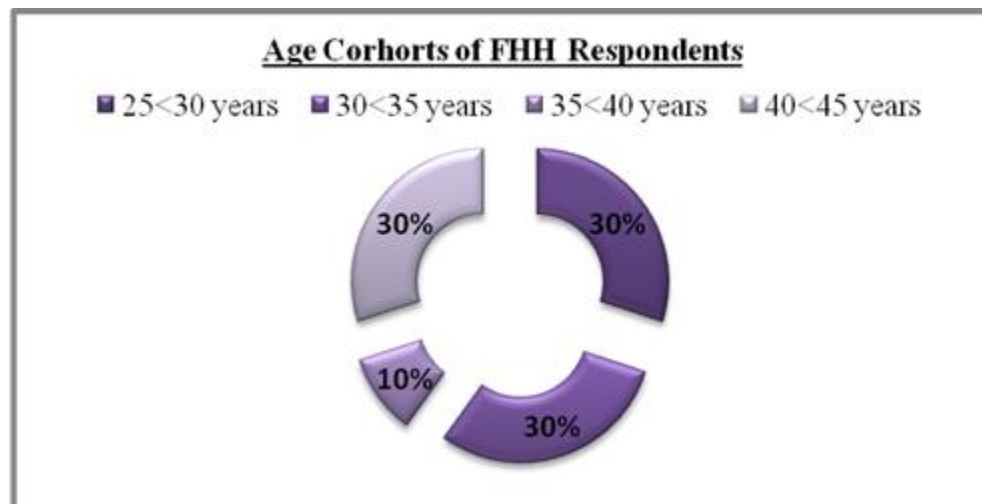
**Figure 3: The Status of the FHHs Respondents**



Source: Author, (2019)

Most Female Headed-Households heads are aged between 25- 45 years which is considered as the reproductive age bracket as defined by the World Health Organization as shown in the figure 4, below.

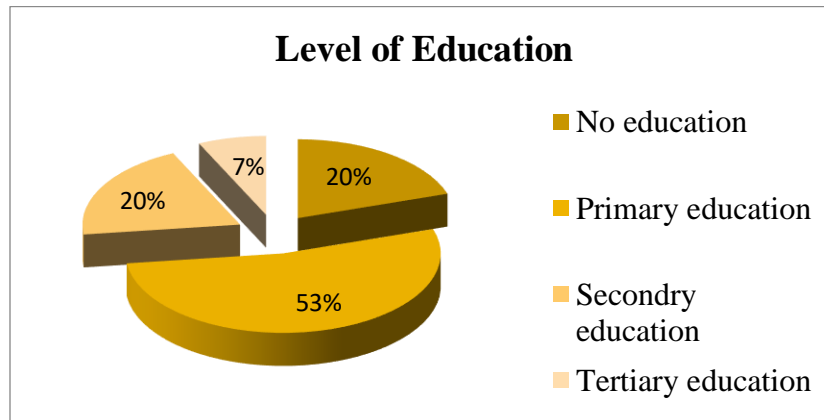
**Figure 4: The age groups for Female Headed Households of the respondents**



**Source:** Author, (2019)

As shown in Figure 5, majority of the respondents had primary education (53%) followed by secondary education (20%) and no education (20%). Only 7% had tertiary education. This indicates that many respondents were not well educated.

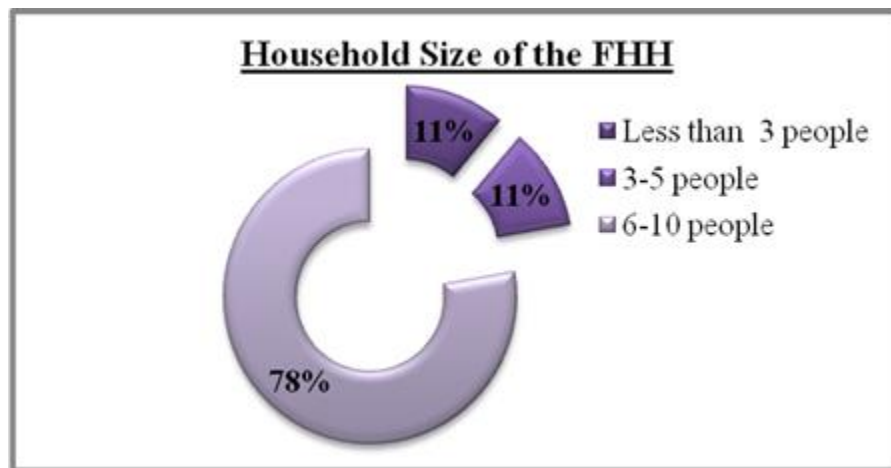
**Figure 5: Level of Education for Female Headed Households of the respondents**



**Source:** Author, (2019)

The family sizes or household size range from 2-10 people per household inclusive of the children and part of the extended family as shown in Figure 6.

**Figure 6: The number of people in female headed households**



**Source:** Author, (2019)

#### **4.3 Local vulnerability context faced by households in accessing food**

This section covers the respondents' stories on local vulnerability context faced by female-headed households. Factors that have resulted in local vulnerability by the households in accessing food are presented and discussed in detail. The vulnerability context was discussed in terms of shocks, trends and seasonality facing the households.

##### **4.3.1 Trends**

The study looked at the trends in Jowhar district in terms of population trends and resource trends (conflict).

##### ***Population trends***

The respondents interviewed had large number of households- an indicator of increasing population trends. Nine out of twelve FHHs respondents and three MHHs had a household of more than five people. Three respondents had a household size of 10 each.

Respondent FHH 3, 44-year-old, divorced with eight dependents. She explains how taking care of her ailing mother has left her penniless and unable to provide enough food for her children.

“My mum has been battling blood pressure for over five years. I don’t have enough money to buy her medicine and feed the household. Since I have no formal education, it is difficult for me to secure a well-paying job. I can only afford to do casual jobs, and for the moment I do wash clothes for rich people and sometimes clean their offices. I earn a meagre income of 70 dollars per month, which is not enough to cater to all the needs. My brother, who is a carpenter, tries to chip in and help to buy mums medication as I purchase foodstuff.” (Personal conversation, 22<sup>nd</sup> July, 2019, FHH 3).

Findings show that population trends influence food accessibility among FHH households. An increase in dependency level resulted to vulnerability among the households as the share amongst an individual decreased.

#### **4.3.2 Shocks**

Shock was another vulnerability context considered in this study. The shocks indicated by the respondents were Naturally occurring shocks such as drought, pests and diseases were studied.

##### ***Droughts***

Drought is associated with the inadequacy of food for households in Jowhar district. SSIs, KIIs and FGDs unanimously agreed that drought was the main factor affecting food accessibility in their area. Through an SSI, respondent 2, 34-year-old divorced lady said that her business was occasionally affected by drought. Her job was supported by her brother who is a farmer in the area and relied on the rain. She lamented that drought had affected her capability to provide to her household of seven (7).

“I started my venture after getting a divorce from my husband, who after getting another wife, decided we were no longer a priority. Life was hard being under a man who wanted to control me but could not provide for our children's needs. My brother supported me and even advised me to start my business (selling vegetables). I have been in this business ever since. When I am not in the market, I work on the farm that was allocated to me by my brother. I am lucky as many men here have a mentality that women should not own land. We, however, have challenges during drought season when little or no vegetables survive that harsh climate. During that period, I try to switch to other products or do casual labor. Sometimes the situation is so dire that almost all the crops and livestock do not survive and agencies come here to help us.” (Personal conversation, 22<sup>nd</sup> July, 2019, FHH 2).

The occurrence of drought, as indicated by respondent FHH 2, directly affects food accessibility in the area. A similar challenge is faced by respondent 11, 54, widow who lost her husband to Al-shabaab killings. She describes how the husband left her 3 acres of land which she has divided amongst her sons and left a portion for farming. Respondent FHH 11 also takes care of 7 grandkids after the death of their parents.

“I don't have enough energy to look for manual jobs like other women. I take care of my small plot of land by planting vegetables and maize. The crops do not do well around this area because the weather is harsh. Last year, for instance, I did not manage to harvest any maize in my farm. This year does not look promising though I might reap a little bit. For the last five years, I can only say that I had a good harvest on only two seasons. The area is so prone to drought we got used to it. We try substituting farming by keeping livestock. As you can see, I have some sheep, goats and camel that I hold. My grandkids have been very helpful.” (Personal conversation, 25<sup>th</sup> July, 2019, FHH 11).

One DAO through a KII indicated that food production in the area was not reliable because sporadic drought. According to him, the drought in the area was a common phenomenon and they were used to it. He went further to explain that the only measures that their government had been able to put in place were reliance on aid donors. From the FGDs, the respondents said that drought affected every household in the region. They however indicated that the female headed households were hit hard since they did not have alternatives of migrating to other areas. They felt it was insensitive to leave their children and go to other areas in search for greener pastures.

##### ***Pest and diseases***

Pests and diseases are other calamities faced by farmers and had led to insufficient food not only in the market but also within households. A total of 10 out of 12 respondents from FHHs were of the opinion that food accessibility was due to pests and diseases on their crops.

Respondent FHH 5, 26 years old, who also works in the market to support her family of 3 is all so familiar with this challenge. Respondent 5 lost her husband as a result of malaria to become the sole breadwinner. She now sells chutney or '*LeefLeefow*' as is commonly known in Somalia. Chutney is a thick sauce delicacy made from mango and saffron powder. She also sells ice-lolly within schools in Jowhar. She explained how pests and diseases have been a pain to her enterprise:

“The issue of pests has been a pain in the neck for the farmers and retailers. Many are times I have had to throw away my mangoes for being spoilt. The tricky thing dealing with mangoes is that you buy them when they are unripe and have to give them time to ripen. It is when they are ripe that you start noticing they have defects. As a result, I have to throw them away as I can't prepare bad '*LeefLeefow*'. I find myself blaming the farmers but realize they are also counting loses for the same. To counter my problems, I have been switching the farmers every other season though the problem is almost everywhere. This has affected my business as I am unable to stabilize due to loss, I make time and again.” (Personal conversation, 23<sup>rd</sup> July, 2019, FHH 5).

Respondent FHH 5 sentiments are further supported by respondent FHH 9, 33 years old, whose husband died as a result of an unknown disease and who has a household of ten (10). Respondent FHH 9 sells vegetables and snacks which she grows in her farm. She explains how pests and diseases have been a nuisance to her:

“I am lucky to have a piece of land that I call mine. Even before the death of my husband, I used to do farming. Life was better then since I was not the sole breadwinner. My husband used to be a tractor driver, and the business was doing great. I did not concentrate fully in my farming as I partially depended on him to provide for the family. I invest a lot in my land, but after harvesting, I lose a lot of money. I am now finding it difficult to continue with my farming due to the recurrent drops I am encountering year in year out. I usually grow maize cowpeas, vegetables. There is this pest called Fall armyworm that has been a bother to almost every farmer in the region. It has affected my production in terms of quality and quantity.” (Personal conversation, 24<sup>th</sup> July, 2019, FHH 9).

Through the FGDs, respondents indicated that they had to endure the pests and diseases. They said that their capacity to produce enough food was impinged on by the calamity. Their opinion was supported by one key informant who said that the area had a history of pests and diseases.

#### **4.3.3 Seasonality**

The study also looked at seasonality as a vulnerability context facing FHHs in Jowhar District. The elements under seasonality that were investigated included price fluctuation and low yields.

##### ***Price fluctuation***

One significant seasonality factor acting as a vulnerability was price fluctuation. A total of 5 out of 12 respondents from FHHs said that price fluctuation affected their food accessibility. Respondent FHH 3 describe how price fluctuation had impacted on food accessibility for her household. She said;

“The food prices in the market keep on changing. Sometimes I go to the market and the price has doubled from the previous prices. If such is the case, I reduce the amount I am to buy. Sometimes I have to forego the not so important foodstuff or the expensive ones. This means that sometimes we have to forego balanced diet.” (Personal conversation, 22<sup>nd</sup> July, 2019, FHH 3).

Contradictory to respondent FHH 3 lamentations, respondent FHH 6 explained how price fluctuations affected her business.

“I am personally affected by price fluctuation. I have a shop and when the price of the products is not stable, I experience losses. The price fluctuation is sometimes due to increase in products to the market while at times it is due to shortages of goods. during harvesting time UNWFP give a lot of food aid and these goes directly to the market and the price of our products decreases. It becomes very difficult to get back what we invested. Both farmers and business people get discouraged. We raise this issue many times for the local administration and they do not fix it.” (Personal conversation, 23<sup>rd</sup> July, 2019, FHH 6).

Many Agro-pastoralists also face poor terms of trade in some areas due to distance from the markets and lack of information about the actual price of the markets.

### **Low yields**

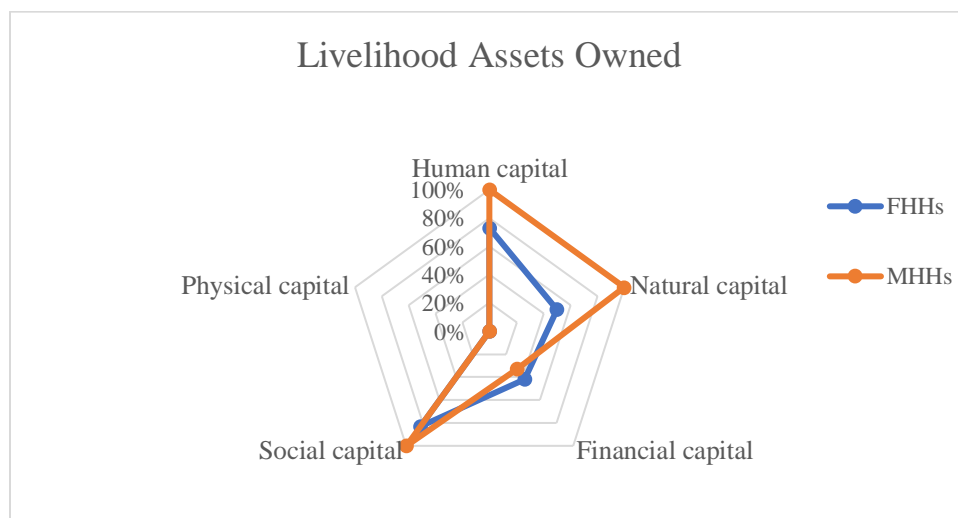
The respondents from the SSI stated that they experienced low yields which had continued to cripple their capability in accessing food. Six out of the 12 FHH respondents who relied mainly on farm produce said that the production in the recent years have dwindled significantly. They were further backed by respondents from FGDs. As much as the respondents blamed the situation, they also had themselves to blame. Respondent one who cultivated maize, sorghum and sesame in her land explained;

“The produce I get from my farm is only enough to feed my family. Nonetheless, it is not enough to sell to the market. I do not have adequate agricultural inputs to help me in farming. The rent of the tractor is very expensive, we can only use manually because we cannot afford. The Fertilizers are also expensive, and we didn’t receive any agricultural inputs for the last 3 years. I also fall short of water for irrigation.” (Personal conversation, 22<sup>nd</sup> July, 2019, FHH 1).

### **4.4 Livelihood Assets Owned by households that Influence Food Accessibility**

This section focuses on findings based on livelihood assets owned by FHHs, MHHs and how such influence food accessibility. The livelihood assets are classified as natural, physical, financial, social or human capital. The study, therefore, attempts to describe how the assets owned or not owned influence food accessibility among female-headed households.

**Figure 7: Livelihood Assets Owned**



**Source:** Author, (2019)

As shown in Figure 7, MHHs had assets such as natural capital (livestock, land), human capital (labour, education) and social capital (religious group). The FHHs relied on social assets (women groups and religious groups) and a few of natural assets (livestock).

#### 4.4.1 Human capital

On human capital I looked at education and labour contribution towards food accessibility among FHHs in Jowhar District. Many of the respondents interviewed had little, or no formal education involved their children in sourcing their livelihood and engaged in low paying labour.

**Table 1: Education level of MHHs and FHHs of the respondents**

Education level	FHHs		MHHs
	Frequency	Percentage	Frequency
No education	3	25%	0
Primary	7	58%	1
Secondary	1	8%	2
Tertiary	1	8%	0

Source: Author (2019)

As shown in Table 1, one out of 3 and 2 out of 3 of the MHHs had primary and secondary level education. Majority of the FHHs had primary level education, 25% had no education while 8% each had secondary and tertiary level education.

Human capital had a great influence on their livelihood and mainly hindered their engagement within the community. Respondent FHH 1, who worked as a livestock broker, insisted on the importance of education in her business. She relayed the importance of human capital in realizing one goal and taking care of the children. She said;

“I was raised in a big family. My father had three wives, and so I had so many siblings. I don't get to see some of them nowadays. When we were growing up my father never discriminated girls from boys. He treated all of us as equal, and most of all insisted on the importance of getting an education. It was, therefore, the responsibility of his wives to ensure that their children went to school without missing. I got my secondary education but was not as lucky to continue to the next level. The knowledge I acquired has helped in doing business as it gave me confidence and better negotiation skills. I sometimes approach the organizations we have here to buy my products. On several occasions, I have been successful, and that has helped in raising my livelihood. Compared to other FHHs, I can say that I am in a better situation than them. I am also able to take my children in school, and as we speak, two of them are in university.” (Personal conversation, 22<sup>nd</sup> July, 2019, FHH 1).

Respondent FHH 1 story shows the significance of human capital in accessing food among women. Respondent FHH 2 further shared the significance of education as human capital. According to her, training has ensured that she puts bread on the table for her family after experiencing an ugly divorce.

“Many girls in our country prioritize marriage to education. I used to be ridiculed by some of them that no man will want to marry me if I got more training. Of course, I dreaded the idea of being single the rest of my life, and for that reason, I got married immediately after finishing my teaching course. My husband could not allow me to teach, so I stayed home and raised children. Men in our community forbid women from working while else they can't afford to feed the entire family. They will demand you to stay at home and bear him many kids. They don't want you to use any



method of family planning. They also disrespect you by bringing another woman even without consulting you. That is what happened to me, and I had to confront him about it, but he just said the custom allowed him to have up to four wives. When I was getting married, I knew my ex-husband would remarry, but I never thought it would be that soon. I became jealous and decided I was better single than have co-wives. Once a man gets a second wife, it becomes so easy for him to have a third and a fourth. The cycle of poverty in the society, therefore never ends. I knew I would be trapped in this cycle if I did not act fast. My ex-husband would also expect me to continue birthing more children even after he gets other wives.

I moved to my parent's place, but I had a vision of bettering society by helping and mentoring other ladies who felt trapped in marriages or were pressured to get married. I first volunteered as a teacher in an NGO that helped girls forced into early marriages. My parents helped me with raising the kids before I could stand on my own. I am now working as a primary school, and the little I get I can feed my children. I also managed to rent a house near the school, so I don't have to be a bother to my parents. Sometimes I send my parents some little money when they are in dire need." (Personal conversation, 22<sup>nd</sup> July, 2019, FHH 2).

Respondent FHH 3 narrated how her lack of education had been the source of her predicament;

"My parents saw no need of taking me to school as education was for the boys. Again, after the war erupted in our country, many people stopped going to school, so it became the norm. I also got married when I was very young. Without education, a man treats you like trash as you have no source of an income. After my husband divorced me, I found it hard to secure a well-paying job. I now clean clothes and office for the rich people in the area. It is hard working for these people because they treat you as a slave and expect you to do loads of work." (Personal conversation, 22<sup>nd</sup> July, 2019, FHH 3).

The findings show that lack of education among women in Jowhar district has contributed to their level of poverty and inability to provide for their families adequately.

Labour was also another human capital that was highlighted as being significant in influencing food accessibility among MHHs and FHHs. A total of 10 out of 12 FHH respondents stated that they from time to time had to deal with unemployment. Assistance from close family members was seen to reduce the burden for female-headed households. Respondent FHH 2, for instance, was introduced into the business by his brother who alternated as both a farmer and a businessman. She explains;

"My brother knew the market better than I did. He used to produce vegetables and take them to the market. I have learnt a lot from him, and he has been by my side all through. He now concentrates more on doing the farming while I settle on selling. My brother has also connected me to other farmers where I can buy vegetables. People here talk ill of women who associate with women, especially if they are single, but since my brother mostly accompanies me, no one seems to mind me or mind being my customers. The situation is different in women who have no male support." (Personal conversation, 22<sup>nd</sup> July, 2019, FHH 2).

Respondent FHH 8, 30-year-old explain how being divorced by her husband she went to stay with her parents;

"My ex-husband used to be very irresponsible. All he did was chew "*khat*" all day with the little money he got doing manual jobs. He used not to support us, so I decided to leave him. I now stay with my ageing mother and kids. My father was killed during the war, which erupted in the '90s.

Before the war, female-headed households were few because there used to be stability and no conflicts, but since the civil war broke out, the numbers of female families rose sharply. It is after the war that cases of unemployment started soaring as the government could not offer jobs. Getting jobs is particularly hard for women since they can't do manual tasks such as carpentry and masonry. I also did not go to school, so I know I cannot get a job with the government or the non-governmental organizations in the area. I opt in selling mangoes and ice-lolly, but the income I get from the enterprise is never enough to feed my household.” (Personal conversation, 24<sup>th</sup> July, 2019, FHH 8).

Issue of unemployment, as explained by FHH 8, increases the dependency level within a household. Unemployment also creates a cycle of poverty as those who can't secure jobs rely on male relatives to meet their daily needs. The respondents indicated the role played by close male relatives who either fully or partially contributed to their livelihood. Respondent FHH 9, 33-year-old, who faces seasonal unemployment, relies on her son during hard times.

“Selling vegetables and snacks is not enough to feed a household of 10. I have primary level education and for that reason, unable to secure any formal job. Other jobs besides manual ones are rare to come by. My son, who is now 19 years old, has been helping us a lot. He is a long-distance driver and only manages to see us once in a month. Men can be given such jobs, but people never recognize women for such duties or any responsibility that is seen to be male-dominated. Since he has no family of his own to feed, he spends most of his income trying to educate his siblings and buying food. Ever since my eldest son got a job as a tractor driver, our life has changed. Before then, I used to be the sole breadwinner, and the task weighed me down. My son has had his job for one year. His income has been helping me in taking care of his siblings, who are in school. I would like them to complete school and get good jobs for us to get out of poverty. His salary is however not satisfactory though we are better than other households who have no male in their homestead.” (Personal conversation, 24<sup>th</sup> July, 2019, FHH 9).

As narrated by respondent FHH 2,8 and 9, labour was a very vital element of human capital. The higher the number of male figures providing labour or helping get more income, the better the food production in the household.

#### **4.4.2 Natural capital**

Natural capital under this study was used to include land, livestock, water, trees, forest. The study thus investigated whether availability or lack of the capital influenced food accessibility among female headed households in Jowhar District. Through the FGD, very few respondents indicated that they owned land. More widows than divorced women were reported to own land. The case was however different on MHHs as men owned large parcels of land. This could explain the variation between food accessibility on FHHs and MHHs.

From my observation, I could not help notice that the residents reared large herds of livestock such as goats, cows, camels and sheep. Majority of MHHs had more than 10 livestock with majority being goats. The FHHs had very few (less than 10) or no number of livestock under their care. This could be due to the limited space of land under their name as well a lack of individuals to take care of them. The MHHs utilized free labor from their children or employed personnel to take care of the herd. Availability of livestock a natural capital is seen to play a significant role in the realization of food among households. This observation is further supported by Respondent FHH 1 who despite being a livestock broker has a herd of goats;

“The work I do requires that I have a sufficient supply of livestock for my clients. Goat meat is generally in high demand around this area and Somalia at large. I cannot wholly rely on my customers to furnish me with the goods. I decided to keep my goats to bridge any gap that may occur. I manage to have a minimum of 100 goats at any given time. I have employed two men who help me manage the herd. They take them around the area to graze.” (Personal conversation, 22<sup>nd</sup> July, 2019, FHH 1).

Livestock keeping is one of the practices embraced in Jowhar district. Almost all the households in the area have one type of livestock or another. The situation is nevertheless different in FHH as a majority-owned few livestock.

**Table 2: Livestock owned by FHHs and MHHs in Jowhar district**

	FHHs				MHHs			
	Goats	Sheep	Camel	Cows	Goats	Sheep	Camel	Cows
Less than 10	25%	58%	83%	75%	0	0	0	0
Between 11-20	42%	25%	17%	25%	0	0	76%	33%
Between 21-50	17%	8%	0	0	0	100%	33%	67%
Between 51-100	8%	8%	0	0	67%	0	0	0
More than 100	8%	0	0	0	33%	0	0	0

**Source:** Author (2019)

As indicated in Table 2, 42% of the FHH had between 11-20 goats, 25% had less than 10 goats, 17% had between 21-50 goats and 8% each had 51-100 and more than 100 goats. For the MHHs 67% had between 51-100 goats and 33% had more than 100 goats. A total of 58% of FHHs had less than 10 sheep, 25% had between 11-20 goats and 8% each had between 21-50 goats and between 51-100 goats respectively while their MHHs counterparts (100%) had between 21-50 sheep. Further, 83% had less than 10 camels and 17% had between 11-20 camels while for the MHHs 76% had between 11-20 camels and 33% ad between 21-50 camels. Finally, a total of 75% of the FHHs had less than 10 cows and only 25% had between 11-20 cows. For the MHHs, 67% had between 21-50 cows while 33% had between 11-20 cows.

Availability of animals within a household is an indication of their capability to provide food for their families. Through the FGDs, respondents indicated that it was difficult for FHHs to buy and keep animals. They indicated that some women especially the divorced did not own pieces of land.

The area was also faced with water shortages. This was further confirmed by the SSIs and FGDs conducted. One of the respondents, Respondent FHH 4, explained;

“Lack of water acts as a significant hindrance on what one can do when it comes to farming. Though I don't have land at the moment, my mom would be doing better if this area had enough water. During dry seasons, we are forced to walk for long distances in search of water for human use and animal consumption. Water challenges also limit what we can do during dry seasons since no crops survive the harsh weather.” (Personal conversation, 23<sup>rd</sup> July, 2019, FHH 4).

Respondent FHH 4 opinion is also shared by MHH 2, 37-year-old, who works as both a farmer and a businessman. He had the following to say;

“Water is everything when it comes to life. However, we experience water shortages during “Jilal” (dry season). Less farming activities occur during this period. Sometimes the drought is so severe

that we experience the death of plants and animals. Due to the recurring drought, I decided to expound my source of revenue to the business of selling livestock and other farm products. When the harvest is good, I supply different brokers with produce. However, when the season is not right, I concentrate on selling livestock, mainly goats.” (Personal conversation, 26<sup>th</sup> July, 2019, MHH 2).

The narration by respondent FHH 4 and respondent MHH 2 shows that all households are affected by natural capital, especially when there is a deficiency. The FHHs are, however, hit hard as they do not have alternatives to lean on when challenges face them explaining the differences between MHHs and FHHs.

#### **4.4.3 Financial capital**

Financial capital is divided into several contingencies among them remittances, credit, pensions, among others. This study considered remittances and credit accessibility as the necessary form of financial capital among FHHs in Jowhar district. The respondents indicated not to have ever worked in an organization for a long time to be considered for the pension. Respondent MHH 3, 35-year-old, who worked as a farmer as well as a carpenter complained how difficult it was to qualify for credit from financial institutions. He said;

“For the longest time, I have been sourcing for extra finances to help me expand my carpentry business. My visitations to financial institutions have not born any fruit. The first time I approached them for a loan, they suggested that I had to be a registered member, and I facilitated the same. After registration, I was told to ensure that I save for a minimum of six months with them. I lost hope since I thought I could get the money immediately. After saving for around seven months, I again gave them a visit, but I was still let down. The excuse this time around was that I was not consistent with my saving. How could I be consistent if my income is not consistent? (He rhetorically asked me). I have now given in ever securing a loan from the banks. I cannot promise them to be persistent with the savings since I have my challenges in obtaining the income. My brother, who is outside the country, has been sending me some cash that I have used to revive my business. I cannot keep pestering him to assist me with the money; hence, I want to work harder and grow my business.” (Personal conversation, 26<sup>th</sup> July, 2019, MHH 3).

Respondent MHH 3 story summarizes one of the challenges faced by households in Johwar district on the acquisition of financial capital. His encounter is nevertheless a tip of an iceberg compared to what women in FHHs face. Respondent FHH 8 has been managing her household by selling ice-lolly and mangoes.

“I once went to the bank to enquire on whether I can get a loan to open a business. I realized that women were treated differently from men. From the onset, I could see that the treatment was not good enough. I tried to follow all the procedures, but I have been unable to save money with them. I cannot take money to the bank while my family suffers.” (Personal conversation, 24<sup>th</sup> July, 2019, FHH 8).

The respondents appeared not to understand the operations of the financial institutions. They expected to walk into the banks and get loans without much hassle. Lack of credit limited the expansion of their respective enterprises and consequently, the provision of food to their households.

Some female-headed households relied on remittances from relatives living outside the country. This was the case of respondent FHH 4 who despite being sick, managed to take care of her children. She narrated as follows;

“Since I got ill, I have been unable to work. I, therefore, depend on my relatives to take care of my children and me. My mother has mainly been very helpful since through her; we get assistance

from my two siblings who are working abroad. The amounts they have been sending have aided us in accessing food. It is, however, not enough to cater for all my medications. Therefore, I need to register with aid groups within the locality.” (Personal conversation, 23<sup>rd</sup> July, 2019, FHH 4).

Respondent MHH 3 and respondent FHH 4 story highlight the significance of remittances as a financial capital among households in Jowhar district. Siblings or even relatives who have gone abroad are considered to be financially well off than their counterparts in the country. They, therefore, felt they had an obligation of helping their family back home. The amount they send is never enough to cater to the needs of the recipients as the dependency level is usually enormous.

#### **4.4.4 Social Capital**

Social capital in this study included all forms of social inclusion in terms of one relationship with others within the community. The study thus looked at whether social capital contributed to food accessibility or complicated it. The social capital considered in this study was role played by religious groups or non-governmental organizations. Respondent FHH 7, 28-year-old, who explains the rejection she got after divorce was wearisome.

“I am not working at the moment. It has been a rough journey for my two children and me. I do not belong to any social group, as most women see me as an outcast. When you are young and divorced, people here know that it is your own doing. Getting friends also becomes difficult since most of them are married and depending on their husbands.” (Personal conversation, 24<sup>th</sup> July, 2019, FHH 7).

Respondent FHH 11 explained how, after the death of her husband, she was comforted by a group of women both emotionally and financially. The group has been a pillar to her, and together, they have been able to lobby for some financial help. She said;

“Associating with a group of people has been helpful to me. It is particularly useful for women who have lost their husbands through death or been divorce. It makes you see that you are not the only one with problems. Getting to hear other peoples’ stories makes you grow stronger and able to manage your household. During the time of my grief, I was unable to provide for my family, and the women did the best to see to it that we never went hungry. Women who are going through rough times now come to me for comfort since I am now the chairperson of the group.” (Personal conversation, 25<sup>th</sup> July, 2019, FHH 11).

The situation explained by respondent FHH 7 and 11 is common among young women with kids and unmarried. Unlike the older ones who come together, the young females are jealous of each other.

Several women, as well as men, explained how culture influenced not only what they were allowed to do but also their education acquisition. The culture was also a key determinant on marriageable age and therefore contributed to early marriages. This was agreed upon by the respondents from SSIs and FGDs.

Respondent FHH 7, 28 years old, explained how she was married at a tender age and got divorced with two kids to take care by herself.

“My parents and my ex-husband arranged my marriage. He was older than me by the time and had two other wives. Though challenging to deal with because of jealousy from the co-wives, life seemed better before I bore my first kid. My ex-husband used to give me a lot of attention and would spend more time at my house. When I bore the first kid, he reduced the frequency. He started frequenting again when the kid was about a year old. This resulted in the second child, and after I had given birth, he again vanished. This time he did not go to his previous wives as was

the norm, but he started negotiations with another family to marry their daughter. I could not take it anymore, so I left with my two kids. Getting a decent job to feed my children has been trying since I dropped out of primary school. My brother, who managed to get an education, has been the provider. I try assisting him by looking for jobs to do, but I am limited on what I can do. Many people here believe that a woman should get a man to provide for her. I don't want to get married, and I thus have to continue looking for a job to do." (Personal conversation, 24<sup>th</sup> July, 2019, FHH 7).

The belief that women should not do a certain kind of jobs is an accepted culture, and anyone going against is treated harshly by not only men but also women. Respondent MHH 1, 44 years old, who works as a tractor driver, explained how culture has been an obstacle to food accessibility among FHHs. He is sympathetic since he has a widowed sister who he helps in paying some bills.

"Though the economy is terrible nowadays, it is harsh on households where there are no adult men. In our culture, the weaker a family is, the more they consider giving out their girls for early marriages to older men. Boys, on the other hand, are encouraged to work harder in school and get good jobs to help their families. My older sisters were married off when they were barely 16, and although I did not understand much at the moment, I pitied them. Some were lucky to be married to younger men who took them as first wives. One sister was, however, unlucky as she was chosen as the fourth wife to a man as old as my father. After her husband had died of an unknown disease, she refused to be married off to the husband's brother. She is now staying with me at our home. I have a wife and kids so I have built her a separate house. I get to see her every day after work and buy her foodstuff when she can't afford. I am, however, unable to help with other things such as paying for her children school fees. I advise her to seek assistance from the non-governmental organizations." (Personal conversation, 26<sup>th</sup> July, 2019, MHH 1).

All the respondents interviewed were Muslims, and they said it played a role in their decision on how to work. Religion also dictated the attire worn by women, thus limiting the kind of activities they can engage. Respondent FHH 10, 29-year-old primary school teacher narrated how religion can act as a hindrance towards accessibility of food among female-headed households. She lived with her three kids after divorcing her ex-husband:

"I was among the lucky girls in this district who got an education. My mother tried against all the odds to see to it that I finished my secondary school and enrolled for a teaching career. We were only three girls in our class who completed the secondary level. Many men got trained on courses such as welding, mechanical, electrical, but for us girls, we had to do 'easy' courses. It was stated that we could not work in an environment that is male-dominated. Girls are also expected to take classes that pay lower than the courses taken by boys. At the end, when your husband dies or divorces you either have minimal resources to feed your family or jobless with nothing. This way, you will be forced by circumstances to look for another man to marry look after you. My mother used to advise me to be an independent woman, so I am trying to stabilize myself before I think of remarrying. I want my children to secure better jobs outside our country." (Personal conversation, 25<sup>th</sup> July, 2019, FHH 10).

The scenario is altogether different in men who from time to time, meet each other in the centers and the mosques. From my observation, it was clear that most of the respondents and others in the community respected their religious affiliations. It was also clear that all were Muslims and abided by the rules. The respondents indicated that they visited the mosques on the stipulated time schedules. Respondent MHH 3 explains how he has no problem socializing with men.

“Most of the time, I am at my shop where I make furniture. I get to meet most people here. I also get to meet men at the mosques, and we share a lot. Compared to women, I can say that men have more freedom of interacting with whomever they want.” (Personal conversation, 26<sup>th</sup> July, 2019, MHH 3).

Social capital is thus weaker in women than in men. Women who go against the set customs are not accepted in society.

#### 4.5 Livelihood strategies practised by households in achieving food accessibility

The livelihood strategies by female headed households differed greatly from those practiced by other households. Some of the livelihood strategies by women included casual labour, petty trading and farming. As indicated by respondents from SSI and FGDs, FHHs alternated between trade, casual jobs and farming.

**Table 3: Livelihood Strategies**

Livelihood strategies	FHHs		MHHs		Total
	Frequency	Percentage	Frequency	Percentage	
Farming	12	100%	3	100%	15 (100%)
Petty trade	9	75%	2	67%	11 (73%)
Casual labor	7	58%	0	0	7 (47)

**Source:** Author, (2019)

As shown in Table 3, all the respondents practised some form of farming. A total of 75% of the FHHS and 67% of the MHHs did petty trade while 58% FHHs did casual labour.

##### 4.5.1 Farming

The respondents indicated that they relied on farming for their livelihood. The farming by FHHs differed from MHHs due to variation in assets such as natural (e.g. land) and financial assets. Households headed by men were seen to invest more money towards farming than their counterparts in female headed households. Respondent MHH 3 who alternated as both a farmer and a carpenter said;

“I have no limitations on what to grow in my farm. I am however busy and leave the responsibility on my wife to decide what to plant but mainly the maize occupies the largest portion. Other than that, I keep goats and camels for meat and milk production.” (Personal conversation, 26<sup>th</sup> July 2019, MHH 3).

Respondent FHH 9 who sold vegetables and snacks in the market said that she also relied on farming as well.

“I have three hectares of land where I grow maize, cowpeas, and vegetables. I do farm on a part-time basis since not much work is needed in the farm. The greatest hassle is usually during land preparation, planting and harvesting. Additionally, I keep cattle and goats. Farming has really helped me since I am able to sell the products in wholesale and get good cash that I use to pay school fees for my children.” (Personal conversation, 24<sup>th</sup> July, 2019, FHH 9).

Respondent FHH 9 narration of the significance of farming as a livelihood strategy was further relayed by Respondent MHH 2 who besides being a businessman was also a farmer. He said;

“I have been doing farming all my life and so far, no regrets. I am able to feed my household and cater for other household needs. I don’t have to be present to do the farming as I have a wife and children to do the same.” (Personal conversation, 26<sup>th</sup> July, 2019, MHH 2).

Women face challenges since their physical presence is required when doing a supplementary job. Men on the other hand consider what is done by their wives and children as their own doings. It is thus easy for men to make extra income as compared to women. This complicates their food accessibility.

#### **4.5.2 Petty trade**

Petty trade involves buying and selling of products at a small scale. The products as was found out in the study included sale of vegetables, mangoes, snacks among others. The petty trade practiced by the respondents played a role in their achievement of food security. Respondent FHH 5 explained how her trade had kept her going. She said;

“I have been in this business for several years now. It is easy start this kind of an enterprise as only a little income is required. When starting I borrowed some money from relatives and bought a few mangoes. The demand of the product is low as many women are doing the same thing. I am however grateful to be doing the business as many women have no capital to start their own. I would like to expand the business but all the money I get is spent on feeding my family.” (Personal conversation, 23<sup>rd</sup> July, 2019, FHH 5).

Respondent FHH 6 who runs a small shop described to us how despite receiving some remittances from families who lived abroad she was still stuck on the same initiative. She narrated;

“I started my shop after receiving money from my brother who lives abroad. The amount he sends me now is however lesser than he used to send. Though I don’t complain to him, I have been unable to increase my stock. The higher percent of the profit I get is used to feed my family. More money is required to pay school fees as well as cater for medical bill when such arises. Expounding the business would also appear challenging as the number of buyers in the area is low. Many people also buy goods on credit and some take long before they can pay back. Most of the times I have experienced bad debts that have really been a hurdle to my business.” (Personal conversation, 23<sup>rd</sup> July, 2019, FHH 6).

Petty trade as described by the respondents facilitated their food accessibility. They were nevertheless faced by several hurdles which limited the growth of their businesses.

#### **4.5.3 Casual labor**

Most women in the region were casual laborers (washing clothes, cleaning offices). The task seemed common among women who had low level of education or none at all. Women in FHH used casual labor as a starting point of getting an income. Respondent FHH 3 said the following;

“Other than washing clothes and cleaning offices, I also participate in farm activities. The cleaning that I do takes only some hours in a day. I find myself without a job to do during the afternoon and I therefore decided to start seeking jobs in farms. This has helped me increase my daily income in order to take care of my family.” (Personal conversation, 22<sup>nd</sup> July, 2019, FHH 3).

Respondent FHH 3 story is common to that of respondent FHH 4 who pointed out that before getting sick she used to do casual jobs in the city. She indicated;

“The only limitation that I have for now is being weak but that never used to be the case before. I used to do casual jobs to feed my children. It is very hard to get any lighter job around the area especially when you are not educated. I would wish the situation to be different for my kids but I



am unable to give them a good life that they deserve. I will still continue doing casual jobs after I get well.” (Personal conversation, 23<sup>rd</sup> July, 2019, FHH 4).

The narration by respondent FHH 3 and 4 shows that women rely on casual jobs to sustain their livelihoods. They nonetheless have no other option and for that reason they still continue relying on the practices though they loathe them.

#### 4.6 Control over income within the household

The female respondents under study were found to earn less income than they needed. They had to source for more income from relatives either living abroad or doing better than them. The income they received rarely went beyond provision of food to their families. This was contrary to the male respondents as their income seemed to cater for the households needs.

**Table 4: Control over income**

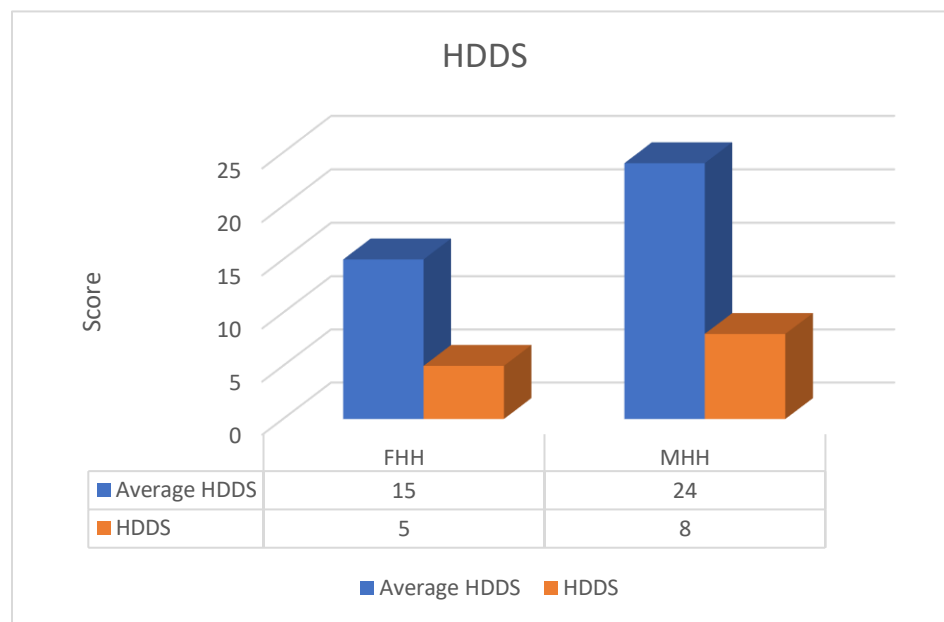
Coping mechanisms	FHHs		MHHs		Total
	Frequency	Percentage	Frequency	Percentage	
Minimizing food intake	10	83%	2	67%	12 (100%)
Taking cheaper food	7	58%	1	33%	8 (53%)
Skipping meals	5	42%	0	0	5 (33%)
Reliance on relief food	8	67%	0	0	8 (53%)
Others	2	17%	0	0	2 (13%)

Table 4 shows that the FHHs mainly controlled their income through minimizing food intake (83%), taking cheaper food (58%), skipping meals (5%) and relying on relief food (67%). The MHHs controlled over income by minimizing food intake (67%) and taking cheaper food (33%).

#### Household Dietary Diversity Score

The period of 24 hours was taken in order to calculate the HDDS of households. Also, any food item consumed outside the home was not recorded. As a rule, any average HDDS less than 3 represents poor or low Dietary Diversity. Any average score ranging from 4-5 is considered medium or acceptable though not enough (requires improvement). Any average score above 5 indicates high dietary diversity score and a clear indicator of the households' ability to acquire enough quality and quantity of food to meet the dietary requirements of all household members.

**Figure 8: Household Dietary Diversity**



**Source:** Author, (2019)

From the above figure Female headed households when associated to MHHs can be said to be more food insecure and exhibited more vulnerability. The HDDS for FHHs was found to be 5 while that of MHHs was found to be 8. This indicates that female-headed households have less in food accessibility.

Among the common income control practices by FHHs were; minimizing food intake, taking cheap foods, skipping meals and reliance on relief food. The respondents explained that they sometimes had to minimize their food intake in order to survive. Respondent FHH 9 who had a total of 10 dependents explained how during dry season she had to reduce the intake. She said;

“During dry season, vegetables don’t do well. Sometimes plants don’t even survive the harsh weather. I am left with fewer options to help me put food on the table for my household. We therefore try to eat less and less food during that period.” (personal conversation, 23<sup>rd</sup> July, 2019, FHH 9).

During an FGD, majority of the respondents indicated that they regulated their food intake when the supply was low. They also took cheap and available foods due to insufficiency of income. Through the KII, the respondents suggested the following measures to be used to control over income within households; property ownership and irrigation.

The respondents through the FGDs expressed their disappointment when it came to ownership of land. Natural capital (e.g. land) was owned by men. Women could only own land after the death of their husband and the ownership was temporarily as they had to pass to their sons. They therefore suggested that women should be allowed to own land and inherit from their parents in case they were unmarried at the time of their death. According to them, owning land would give the women freedom to try various crop alternatives and to have a variety of food.

Their reaction was supported by one key informant who had the following to say;

“Though majority of women do not own land, they are solely left to till the land either by their spouses or male relatives. The men decide on what is to be planted and at the end of the harvest, they enjoy the profit made. This tears down the women effort hence no motivation to put more effort. If women were to have their own land, they would put extra effort and realize better productions thus increasing income.” (Interview, 24<sup>th</sup> July, 2019).

The respondents also indicated that irrigation could be a control over income for many households. Through the FGDs, respondents indicated that they would realize better produce if irrigation water was availed to them. They were supported by one key informant who said;

“Issue of drought and famine can only be solved by having better irrigation strategies. The government should involve international as well as local donors to help with projects aimed at realizing the same. Boreholes for instance should be dug to provide enough water for consumption and irrigation.” (Interview, 24<sup>th</sup> July, 2019).

Another key informant added;

“Instead of relying on donor food every time there is a drought, the donors should be convinced to provide a long-lasting solution. Such solution can be in form of availing irrigation knowledge and means to the people of Somalia.” (Interview, 24<sup>th</sup> July, 2019).

The respondents therefore employed a range of methods to control over their income. The techniques used are however detrimental to their health as it involves rationing their intake. The method recommended by the key informant are not applicable in the short run hence can't solve the existing food accessibility problems.

## CHAPTER FIVE

### 5.0 DISCUSSION OF FINDINGS

Under this chapter, discussion of findings is presented. The discussions are based on the study objectives which relate to local vulnerability context, livelihood assets, livelihood strategies and control over income. The main focus being to understand the complexity food accessibility among female headed households in Jowhar district.

#### 5.1 Vulnerability context and food accessibility

Among the components of sustainable livelihood approach is vulnerability context. The concept plays a vital role in determining the food security among FHH involved in farming. Vulnerability context is useful in resolving on the strategies to employ as well as household capability to sustainably provide food to their members (Dilley & Boudreau, 2011). Vulnerability consists of both external and internal aspects. The internal aspects are the household potential to dealing with loss without losing their assets or capabilities. The external aspects on the other hand are the trend, stress and shocks experienced by households (Niehof, 2010). Under this study, the FHHs were faced with external aspects of vulnerability. The findings agree with a study by Dunga, (2015) conducted in Malawi that found out that FHHs were more vulnerable than MHHs. Findings indicated that the dependency level in the region was very high. From a survey done in 2014, the total population in the area was 269, 851 people (UNDP, 2014). Findings showed that population trend mostly affected the female headed households. UNPD (2009) reports that as population increases, the nutritional requirement is normally ignored as households strive to survive. With population increase comes the pressure on the limited land as well as the resources available. The findings are in line with UNDP, et al., (2009) report that indicated that coastal areas of Philippines were experiencing food shortages brought about by overfishing to cater for increased population.

Drought was also indicated to affect food accessibility among households. Drought is one of the manifestations of climate change that is experienced all over the world. According to Badolo & Kinda (2014), climatic fluctuation can affect food security in third world nations. Lack or inadequate rainfall has a significant negative influence on household resilience and food accessibility (Boukary, et al., 2016). Findings indicated that during the dry season the small-scale farmers are unable to grow their usual crops such as vegetables, maize, sorghum and millet. Most of the farmers rely on fast growing crops to sustain their livelihoods. Extreme dry season may at times affect their livestock leaving them with nothing to feed their families. The findings concur with Boko *et al.* (2007) study done in West Africa asserting that climate variability had an adverse effect on small scale farmers thus impacting on their food accessibility.

In addition to drought, the households reported being bothered by pests and diseases. The pests and diseases mainly affected vegetables and fruits which took a short duration to grow. Farmers indicated that the common pests affecting their crops was fall armyworm (FAW) scientifically known as "*Spodoptera frugiperda*". Among the crops that the pest feed on include; rice, millet, maize, sorghum, cotton, sugarcane and vegetables (FAO, 2017). Studies show that fall armyworm was first discovered in central and western countries in Africa in 2016. Though the pest has spread across many countries across the globe, it is still very common in Africa and more so in sub-Saharan countries thus in Somalia (Day *et al.*, 2017). Fall armyworm was discovered in Somalia towards the end of 2017 by Ministry of Agriculture. In Somalia small scale farmers as well as household's dependent on farming face difficulties in ensuring food accessibility due to pests and diseases.

Seasonality was another external aspect of vulnerability that influenced food accessibility among FHHs in Jowhar District. Among the elements of seasonality investigated were price fluctuation and low yields.

From the study findings it was revealed that food prices in the market kept on changing. FAO (2010) explains that key agricultural ingredients such as seeds, stores availability, crop failure, and energy prices influence food prices resulting to chronic food insecurity. This had an impact on the households as they had to forego a balanced diet. Price fluctuation was also as a result of introduction of food aid into the market. Farmers selling similar products were hard hit by an influx of similar goods retailing at cheaper prices. In the long-run, their motivation to do farming was killed leading to problems on food accessibility within the area. Findings by Barret (2006) confirm the results as he indicated that harmful consequences of food aid are experienced when the food is introduced into the market at the wrong time. He further indicates that distribution of food to the wrong households (food secure household) was one of the causes of food influx into the market.

## **5.2 Livelihood Assets Owned by the FHH that Influence Food Accessibility**

Under the Sustainable Livelihood Framework (SLF) are the different assets to help secure household livelihood. Five capitals under the SLF are human capital, natural capital, social capital, physical capital and financial capital (Scoones, 2009). The study investigated the availability of these assets and how they helped facilitate food accessibility. Human capital is a significant capital that regulates the utilization of other capitals. Without human capital, different capitals can't work to the advantage of the household. According to DFID (2004) human capital comprises of the knowledge, great wellbeing, aptitude and the capacity to work. Human capital of a household is estimated by the number and nature of work accessibility, health status, level of skills and leadership (DFID, 2000).

Human capital was considered in this study in terms of education and labor. Education was found to have been affected by eruption of war in the country. It was indicated that many people stopped schooling during the war. Lack of education affected the opportunities given to women in terms of formal jobs and well-paying employment. Findings correspond to Appleton (1996) study that lack of education was one of the hindrances to women economic empowerment in most developing countries. Limited opportunities went hand in hand with low income hence insufficient money to afford food and other essentials. Individuals with sufficient education were able to have better business management skills. A study by Dungumaro (2008) showed the importance of education in helping achieve empowerment among women in South Africa. The study indicated that uneducated women were disadvantaged when it came to getting jobs as compared to their male counterparts.

Education by women helped them acquired confidence and negotiation skills when doing business. Better education also ensures that households are better managed as women can make good decision on family planning. Educated women understood the importance of family planning and having children that they can manage. A study by Buvinic & Gupta, (1997) found out that educated women understood the importance of family planning and having children that they can manage. The study also found out that when both partners were educated, they settled on a minimal number of children despite the customs and traditions within their community. Buvinic & Gupta, (1997) further explained that having a small number of children as well as having kids that a couple could comfortably raise helped reduce poverty levels in developing countries.

Findings indicated that labor was another significant human capital among households in Jowhar district. Productive labor to FHHs was mainly from close male relatives such as sons, brothers and fathers. It was easier for sons to acquire better jobs than their mothers such as tractor drivers, carpenters and other hard tasks which were mainly meant for men. Assistance from brothers was minimal compared to own sons as they indicated to have families of their own. The male relatives were particularly important as they acted as work assistants and also provided protection to women doing business or engaged in male dominated sector. The MHHs also utilized free labor from their children or employed personnel to take care of the

herd. Consequently, labor from relatives helped FHHs in food accessibility. Findings corresponded to Gowele, (2011) that labor facilitated food accessibility among households headed by women in South Africa.

Natural capital is another significant household asset under the SLA. DFID (2004) defines natural capital as the natural resources from which valuables needed in a household come from. The natural capitals identified in this study were land, livestock and water. Land ownership facilitated food production hence enhancing food accessibility. Nonetheless, few FHHs owned land and this limited their production and eventually food accessibility. Findings concur with Antwi-Agyei *et al.* (2014) who noted that women had no access to farmland. MHHs had lesser difficulties accessing food as they had enough land for cultivation and enough labor through their wives and children. Households with large farms were further found to be more food secured as they their capability to produce food was high.

Findings showed that farmers in Jowhar District reared large herds of livestock such as goats, cows, camel and sheep. Majority of MHHs had more than 100 livestock with majority being goats. The FHHs had very few (less than 10) or no number of livestock under their care. This could be due to the limited space of land under their name as well a lack of individuals to take care of them. It was also observed that Jowhar experienced water shortages. During dry seasons, people were forced to walk for long distances in search of water for human use and animal consumption. Water challenges also limited their activities since no crops survive the harsh weather. Less farming activities occur during this period. Sometimes the drought is so severe that it results to death of plants and animals.

Financial capital is yet another vital asset that facilitates food security. It refers to the financial resources employed by the household to meet their livelihood needs (DFID, 2000). The study findings revealed that loans from financial institutions were minimal among the households. They also had limited collateral they could use to secure credit from financial institutions. Lack of credit limited the expansion of their respective enterprises and consequently, the provision of food to their households. Many FHHs according to Dolan (2005) were trapped in the cycle of poverty due to constraints involved in the procurement of loan and funds. Another form of financial capital identified was cash remittances from relatives living abroad. The households relied on close relatives such as siblings, uncles and aunts or own children for remittances. The cash received was particularly important to the sick individuals with the responsibility of taking care of the household. It also played a great role during the lean seasons when no food could be produced from the farms. It thus helped in food accessibility among households.

Another important capital among households is social capital. Social capital refers to all forms of social inclusion in terms of one relationship with others within the community (Scoones, 2009). Households were seen to use their social network in improving their livelihood. The most common social capital was in form of women groups and religious groups. Women came together during hard times such as after death of members spouse and ailments. According to Mulugeta (2009), one's self-esteem is greatly affected by exclusion by others. The interactions between the women helped uplift a member with social problems hence helping them in managing their household. Findings further showed that while boys were encouraged to go to school, girls were subjected to early marriages. This was disadvantageous to girls as they had narrow means of attaining income hence difficulties in accessing food for their households. Study done by Mallick & Rafi, (2010) concluded that absence social and cultural restrictions gave women the freedom to take part in any kind of jobs leading to food security among households.

The socio-cultural beliefs also acted as impediments on food accessibility among FHHs in Jowhar district. In Somalia, majority of the population are Muslims who allow men to marry up to four wives. Women said that this was disastrous since it affected men attention towards the children. Divorced women complained that they received no support from their ex-husbands. They therefore experienced difficulties

accessing enough food for their household. In cases where women had lost their husband through death, they were left with a huge responsibility of raising their kids. Further, since women were not encouraged to be independent, they found it difficult to stand alone after losing their husbands. The households under study identified as Muslims and would meet at mosques from time to time. This practice however seemed to benefit men than women. The sections for women and men differed thus both genders rarely interacted. It was also not mandatory for women to visit mosques as they could do their prayers from homes. Women were thus limited from meeting fellow women hence less social network. The findings correspond to Dungumaro (2008) who indicated that social capital influences food security among households in South Africa.

### **5.3 Livelihood strategies practised by FHH in achieving food accessibility**

Livelihood strategies encompass all the activities and practices that jointly facilitate how an individual or household manage their living. Smallholder farmers were seen to employ different types of strategies to meet their daily needs. Among the strategies were farming, casual labour, and petty trading. The farming reported was in form of both crop production and livestock keeping. For most of the households, crop farming was the main economic activity. The findings agree with Mulugeta (2009) who found out farming was the common survival strategy for most FHHs. Findings showed that farming by FHHs differed from MHHs due to variation in assets such as natural (e.g. land) and financial assets. Households headed by men were seen to invest more money towards farming than their counterparts in female headed households. Male headed households also relied on other individuals such as wives and children to provide labor. MHHs had the capability of acquiring equipment such as tractors to help in farming. Female headed households had few or no labor to count on and therefore produced lesser harvest. The FHHs also had to double task in order to effectively manage their households.

Other than crop production, the households relied on livestock farming. Majority of the households under study had livestock such as camels, goats, sheep and cows among others. According to ICPALD (2015), livestock production has been the backbone of Somali economy for many decades. A total of 60-65% of the GDP in the country is from livestock production. The number of livestock differed but it was revealed that MHHs had more livestock than FHHs. In Somalia, households' livestock is used to measure one's wealth. It is therefore considered that households with large herds are wealthier than their counterparts with fewer hers. The households stoking large livestock are able to sell their produce in large quantities thus securing better livelihood for their dependants. Food accessibility among households is for this reason greatly determined by the kind of farming practiced.

Further evidence showed that households engaged in petty trading. Petty trade involves buying and selling of products at a small scale. The trade involved sale of vegetables, mangoes, snacks among others. The petty trade practiced by the respondents played a role in their achievement of food security. Women in FHHs dominated this sector. Petty trade requires little starting capital therefore easy to start for individuals from low income cohort. Households involved in petty trade have problems as they are unable to plough back the profit to their businesses. They are therefore unable to expand the enterprises and get enough money to provide sufficient food for their households. Additionally, the households indicated they engaged in casual labor. Majority of women hailing from FHHs were casual laborers. The task seemed common among women who had low level of education or none at all. Women in FHH used casual labor as a starting point of getting an income. The common types of casual labor involved washing clothes, cleaning offices, and cultivation among others.

### **5.4 Control over income within the household**

Different strategies are employed by households to maneuver their way through the hunger period. Findings indicated that the approaches used differed from household to the other. Among the common

practices to control income were; minimizing food intake, taking cheap foods, skipping meals and reliance on relief food. Households minimized their food intake during the dry season. The food decrease left them with fewer options of survival hence they tried to consume lesser food. They also took cheap and available foods due to insufficiency of income. Study findings by Tam *et al.*, (2014) indicated that food-based tactics are common among smallholder farmers' households during famine or when food level falls below their expectation.

From the results, it was evident that management of land ownership and irrigation were other options for controlling household income. Majority of women did a lot of cultivation on lands that belonged to male relatives. Lack of decision-making capability limited the effort they put on land. Households expressed that if women had their own land, they would put extra effort and realize better productions thus increasing income. Markam (2015) propose that giving land ownership to women increased their decision making on land use leading to increase in productions hence decrease in food insecurity. USAID (2016) study in Tanzania reported that women with land ownership produced three times more produce than their counterparts with no land rights.



## **CHAPTER SIX**

### **6.0 CONCLUSIONS AND RECOMMENDATIONS**

The study aimed at investigating the complexity of food accessibility among female headed households who were small scale farmers in Johwar District. The conclusion provided in this chapter is based on study findings and discussions provided in earlier chapters.

#### **6.1 Conclusion**

The study concludes that households face vulnerabilities such as drought, pest & diseases, price fluctuation and low yields. Drought and pests and diseases were found to be the common shocks facing FHHs. The harsh weather affected both crops and livestock. Pests and diseases mainly destroyed vegetables and fruits which took a short duration to grow. The common pest affecting their crops was fall armyworm. Increase in food prices was brought about by food shortages and this usually led to households foregoing balanced diet. Food prices were also lowered by introduction of food given by aid organizations to the poor. Small scale farmers selling their produce to the market are affected by such aid as they are forced to lower their prices hence making losses.

The study also concludes that dependency level influences food accessibility. Increase in population put pressure on available resources. Employment trend in the area was bad as women had difficulties getting job opportunities. Lack of education affected the opportunities given to women in terms of formal jobs and well-paying employment. Few FHHs own land and this limited their production and eventually food accessibility. Loans from financial institutions were found to be minimal among the households in the area. They also have limited collateral to use. Lack of credit limited the expansion of their respective enterprises hence affected provision of food to their households. FHHs relied on close relatives abroad for remittances. The most common social capital among FHHs is in form of women groups and religious groups.

The study further concludes that livelihood strategies applied by FHHs are farming, casual labor, and petty trading. Female headed households have lesser labor to count on and therefore had low yield. Majority of households' own livestock such as camels, goats, sheep and cows among others. The common types of casual labor among women in FHHs are washing clothes, cleaning offices, and cultivation among others. The study finally concludes that to control over income within their households FHHs minimized food intake, took cheap foods, skipping meals and relied on relief food.

#### **6.2 Recommendations**

Based on the findings the study makes the following recommendations to the ministry of agriculture on how to improve food accessibility in Johwar district.

- i. I recommend the Ministry of Agriculture to introduce laws that allow women to own land or have equal rights with their partners. This will help in ensuring that women are able to make decisions pertaining to farming as well as the type of crops to plant.
- ii. I advise the Ministry of Agriculture to seek alternatives on provision of enough water to the households in the region through drilling boreholes. The water from boreholes can help avail enough water for consumption and irrigation during the dry season.
- iii. Many households fail to till their land due to lack of adequate agricultural materials. I therefore recommend the ministry of agriculture to offer or put subsidies on agricultural inputs to encourage FHHs to do farming.

- iv. I suggest the MoA for Intervention project to address less access to dietary diversity for FHH through home garden and this will not only be produced for consumption but also for commercial purposes: this gives FHHs access to market and raise their economies and eventually strengthen their purchasing power.
- v. Problems in food accessibility among female headed households is mainly due to lack of knowledge on how to do proper farming. I advise the ministry of agriculture with the help of regional administrations to carry out extensive education and training to women in female headed households.
- vi. I also recommend the Ministry of Agriculture to introduce a research department in Jowhar district. The department working hand in hand with the local farmers will be able to identify the pests and diseases on timely basis hence avoid loss that may occur.
- vii. I further recommend the Ministry of Agriculture to advice the donors to reduce issuance of food stuff to the needy families but instead issue cash transfers. This will ensure that the market is not overcrowded with cheaper stuff than the already provided by the farmers in the area. Through cash transfers the recipients will support the local economy hence boasting the small-scale farmers.
- viii. Most households do not have ease of access to credit. I advise the Ministry of Agriculture to therefore liaise with the financial institutions to look for ways to ensure that FHHs get loans to help them with their farming.

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