Addis Ababa University

College of Business and Economics

Department of Public Administration and Development Management

Causes and Coping Strategies of Food Insecurity among Rural Households in Kimbibit Wereda, Oromia National Regional State, Ethiopia

By

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This is to certify that the thesis prepared by Seblewengel Hailemariam entitled "Causes and Coping Strategies of Food Insecurity among Rural Households in Kimbibit Wereda, Oromia National Regional State, Ethiopia", which is submitted in partial fulfillment of the requirements for the Degree of Masters in Public Management and Policy (MPMP), complies with the regulations of the University and meets the accepted standards with respect to originality and quality.

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Declaration

I, the undersigned, declare that this thesis is my original work and has not been presented for a degree in any other university and that all sources of materials used for the thesis have been duly acknowledged.

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Abstract

Review of literature revealed that there are a number of studies conducted to understand the causes of food insecurity in Ethiopia (Furgasa, 2016). However, because of the generic nature of these studies, there is a perception that it makes it difficult to better understand the specific nature of the situation in different pocket areas. This study aims to address the existing knowledge gap by exploring the causes of food insecurity and coping strategy among rural households in Kimbibit Wereda, Oromia National Regional State, using a cross sectional household survey. Structured questionnaire, focus group discussions, and key informants interview were used to collect data for the study. Household Food Insecurity Access Scale (HFIAS) techniques were employed to classify the households into food insecure groups by further classifying mildly, moderately, and severely food insecure. A total of 236 survey questionnaires were distributed and 234 were returned. The study revealed that among the survey participants, 56.8% of households are severely food insecure. Accordingly, majority of the households are receiving food aid from the productive safety net program. The finding further indicates that the general factors including agro-ecology, economic, socio-cultural, institution and policy are the major factors affecting food security in the study area. In an effort to assess the food security condition in the wereda using Food Availability Decline (FAD) and Food Entitlement Decline (FED) models, it is concluded that food availability decline surely impacted the area as the production is hampered by the general factors mentioned above. The food market in the area offers some food but many of the households do not have the means to afford or access, which is a clear demonstration of a decline in entitlement. The study recommends that farming households be supported in terms of both short term and long term strategies to improve food production and supply including provision of off-farm engagement firms in the area, diversifying livelihood, using modern farming techniques and inputs to increase productivity.

Keywords: Household, food insecurity, food availability, food entitlement, coping strategy and Kimbibit Wereda

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Seblewengel, June 2018

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Chapter One: Introduction

1. Background

Global food security has been quite a challenge and still remains a worldwide concern. According to FAO, the number of chronically undernourished world population in 2016 is estimated to have been 815 million. This figure is 38 million higher than what is used to be in 2015, but lower by 85 million from the year 2000 (FAO, 2010). The FAO also confirms that the prevalence of undernourishment is projected to have increased to an estimated 11 percent in 2016. This recent increase is cause for great concern and poses a significant challenge for international commitments to end hunger by 2030. FAO also estimates that majority of food insecure and hungry people in the global context live in Eastern Africa, where one-third of the population is estimated to be undernourished. This figure makes the sub region's prevalence of undernourishment increased from 31.1 percent in 2015 to 33.9 percent in 2016. Whereas, the prevalence of undernourishment in the Caribbean and Asia is 17.7 percent and 11.7 percent respectively - significantly lower than what is experienced in African. Food security is impacted by the overall governance landscape and the ability of the state to effectively address the root causes of food insecurity. Moreover, research evidence indicates that inappropriate government policies have become a major barrier to increased food security and economic development in many sub-Saharan African countries. (Anderson, 2015).

Based on the latest estimates, the current population of Ethiopia is 104,957,000 (UN, 2017). Given this possible projection, the Ethiopian population would double in about 28 years and its effect on food security would be insurmountable. This makes Ethiopia, the second most populous country in SSA next to Nigeria. (UN, 2016). Majority of the population depends on agriculture as a primary source of livelihood, and the sector is dominated by smallholder farmers. These smallholder farmers rely on traditional technologies and produce primarily for consumption on hand to mouth basis. Ethiopian agriculture is less productive even by the SSA standard. Food insecurity is evident even in non-drought years and in surplus producing areas. Food insecurity has been an inescapable and predominant reality in the lives of far too many Ethiopians and small-scale farmers in particular, year after year, harvest after harvest (Joachim &

Tolulope, 2007). Despite the fact that Ethiopia's immense natural and human potential is greater than in most of sub-Saharan Africa, the country cannot feed itself. (Petr, 2010). Food insecure households reportedly exhibit a range of coping techniques that reflect the vulnerability. In fact, the coping strategies often have unintended negative effects. Above all, the general tendency is that the lower the household asset status, the more likely the household would engage in erosive responses such as selling off productive assets such as farm implements Many of these small-scale producers are already coping with a degraded natural resource base (Quan, 2010). They often lack knowledge about potential options for adapting their production systems and have limited assets and risk-taking capacity to access and use technologies and financial services, this is evident in Ethiopia.

According to (WFP, 2018) most of the severe food crises were caused by a combination of several factors and are often interconnected. The most common causes of food insecurity in the world were: poverty trap, lack of investment in agriculture, drought, agricultural problems, climate change, war and displacement, unstable market and food wastage. Similarly, the FDRE 2002 food security strategy acknowledges the multifaceted and complex nature of food insecurity in Ethiopia. The adverse climate change, combined with high population pressure, environmental degradation, technological and institutional factors have led to a decline in the size of per capita landholding causing a severe food insecurity problem in the country (FDRE, 2002) Therefore, of all the challenges facing Ethiopia, ending chronic food shortages and rural poverty and achieving enhanced livelihood and long-term food security in an environmentally and socially sustainable manner is the most pressing agenda for the country (EPSNP, 2015).

Recognizing the chronic nature of the situation, the international community is more determined and committed than ever to step up concerted action to fulfill the ambitions of the 2030 agenda and achieve a world free from hunger, malnutrition and poverty (FAO, IFAD, UNICEF, WFP and WHO, 2017). As one of the partners of the international community, Ethiopia is also taking significant steps with programs that meet the varying needs of vulnerable households. Despite these efforts, an estimated 2.9 million people required relief food assistance in 2015, an increase from 2.7 million for the same period in 2014 (Birara, Mequanent, & Samuel, 2015). These facts indicates that food security situation in Ethiopia has been a long-standing challenge to the government, donors, and other international organizations (Abduselam, 2017). This study

therefore, aimed at identifying major causes of food insecurity and coping strategies by taking rural households in Kimbibit *Wereda* to ensure household food security as a case study.

1.1. Problem Statement

In 2016, the food security situation deteriorated sharply in parts of sub-Saharan Africa, South-Eastern Asia and Western Asia. According to FAO indicates that during the first decade of the millennium, sub-Saharan Africa made sound progress in the fight against hunger with the prevalence of undernourishment falling from 29.1 percent to 20.6 percent. However, this was followed by a period of no progress with a worsening of conditions in 2015 and 2016 in many countries. This was mainly due to the impact of conflict and adverse climatic conditions such as repeated droughts - often linked to the El Niño phenomenon - resulting in poor harvests and the loss of livestock (FAO, 2017). Moreover, FAO confirmed that the number of people suffering from chronic undernourishment in sub-Saharan Africa has increased. Adverse climatic conditions, a slow global economy and conflicts are key factors driving food insecurity in the region.

Food security has always been a central development challenge for Ethiopia. Moreover, since the 2008 food price crisis, it has once again become a key issue for many other poor countries and a key global problem as well (Petr, 2010). A study conducted in Becho *Wereda* of Southwest Shewa Zone indicates that though the causes of household food insecurity vary from household to household, the major causes of food insecurity in Ethiopia are closely related to environmental, demographic, economic, social, infrastructural and political factors (Furgasa, 2016). In addition, the study conducted by Bekele in Wuchale-Jidda, in one of the neighboring *Wereda* to Kimbibit, revealed that the major problems associated with demographic factors are high population growth, land fragmentation, over grazing, poor fallowing practice, diminution of landholdings and high age dependency. In the same way, empirical evidences show that demographic factors are expressed as the root causes of environmental degradation and declining land productivity which, in turn, leads to low food production from agriculture and thereby leads to food insecurity (Bekele, 2006). Several studies revealed that different factors have been claimed to be factors causing food insecurity in Ethiopia including differences in resources availability, topography, farmland size, natural disasters and shocks (Birara, Mequanent, & Samuel, 2015).

Many rural *kebeles* in the northern part of Oromia National Regional State of Ethiopia have become food insecure since couple of decades ago. Kimbibi*t Wereda* is of no exception which has been one of the areas which partially began receiving government food aid over a decade ago. The problem of food insecurity has continued to persist in the country as many rural households have already lost their means of livelihood due to recurrent drought and crop failures (Bogale, 2002). On the basis of the assessment made in 2003 by Kimbibit *Wereda* Agriculture Bureau, twenty out of twenty nine *kebeles* have been identified as requiring food aid.

In addition to the generic studies made on the causes of food insecurity in Ethiopia, researchers including (Furgasa, 2016) have confirmed the need to explore the existing real causes of food insecurity in different pocket areas in the country at grass root levels. More localized studies are useful to better understand and interpret the causes and implications of household food insecurity as it relates to specific contexts and circumstances. Such studies will contribute to a better understanding of specific situations contributing to the national food security agenda and permit evidence based policy decisions. However, in spite of the benefits that the specific and localized studies could offer to better understand the food insecurity situations in those areas, the review of literatures couldn't find conducted on Kimbibit *Wereda*. To fill the gap, this study therefore, aimed at identifying major causes of food insecurity and coping strategies by taking rural households in Kimbibit *Wereda* as a case. The study also reconnoiters the extent to which the causes of food insecurity prevailed and how far the coping strategies helped. To this end, the study tried to answer the following research questions:

- What are the causes of food insecurity in rural households of Kimbibit *Wereda*?
- What strategies do rural household adopt to cope up with the prevailing food shortages?

1.2. General Objective of the Study

The overriding objective of this thesis is to explore major causes of food insecurity and the strategies adopted by rural households to cope up with food shortages they face in Kimbibit *Wereda.*

1.3. Specific Objectives

More specifically, the study aspires to address the following objectives:

- Explore the extent of the food insecurity problem at Kimbibit *Wereda*
- Identify the causes of food insecurity at Kimbibit *Wereda*
- Identify the strategies adopted by the rural households to cope up with the food insecurity problem
- Recommend policy options that will fill the gap between the coping strategies and real causes of food insecurity

1.4. Significance of the Study

This research provides insight about the real causes and coping strategy of food insecurity in Kimbibit Wereda in connection with smallholder farmers, and major factors that are specifically affecting the study area as a whole. The reviewed literature shows no evidence of studies conducted on household food insecurity and coping strategies in Kimbibit *Wereda*. The study helped to find out how severe the food insecurity problem level is and that the problems are reversible if tackled with the right tools and means. In addition, empirical information generated in relations to linkage on food insecurity and coping strategies could enhance the understanding of various stakeholders, policy makers, and development practitioners' interested in rural food security. Achieving household food security has been one of the priority agendas of the Ethiopian government in line with the three pillars In response to the Plan for Accelerated and Sustainable Development to End Poverty (PASDEP) a Joint Government-Donor Platform for Enhanced Support and Implementation of the Rural Economic Development (RED) of and Food Security (FS): agricultural growth both for high value crops and for transforming subsistence farming, attaining food security and improving natural resources base (MoARD, 2009). The outcomes will also be valuable in recognizing the gaps in the policy provision of the food security intervention at national level in general, and household level in particular in Kimbibit *Wereda* and providing an input for developing well informed schemes. Thus, help in planning and developing interventions to improve food security at the *kebele* and *Wered*a levels.

1.5 Scope and Limitations of the Study

The scope of this research work is limited to identification of factors responsible for food insecurity in Kimbibit *wereda* and the various copying strategies adopted by the households. Since the study sample was taken from two *kebeles*, the findings and conclusions made for the *Kebeles* sampled may not apply to all other 18 *kebeles* in the *wereda*.

The researcher had gone through a number of challenges while conducting this research work which also intern influenced the scope of the work. Some of the major constraints were:

1. Owing to the ongoing political unrest in the country, the researcher was unable to carry out the data collection task in good time and that forced to finally do this task in a very tight timeframe.

2. Some farmers participated in the study had problems of memorizing or recalling certain information during interview and discussion due to lack of record keeping. This includes data related to amount of crops produced, consumed and sold.

3. The researcher were not able to secure research funds from the University and this created some financial burden on the part of the researcher and resulted in limited sample size for the survey.

4. Due to time constraint, the study is more of qualitative than time series quantitative approach to measure developments of situation through time.

1.6. Organization of the Thesis

With the exception of the abstract and appendix of the paper which appear at the beginning and last of part of the paper respectively, the paper is organized in five chapters. The first chapter introduces the background of the study area, the statement of the problem, objectives of the study, research questions and significance of the study. Chapter two briefly reviews the theories and brings all basic concepts which are used as a basis for discussion in the following chapters and conceptual framework of the study. The third chapter introduces the methodology for the

study to accomplish the research task, including the research techniques, the study area and selection of respondents, sources of data and method of data analysis, issues of reliability and validity of the research outcome, scope and limitation of the study. Chapter four discusses the results of household survey, household perceptions and opinion on government policy interventions. Chapter five concludes by presenting the issues discussed in this paper as well as by providing recommendations for further improvement.

Chapter Two

2. Review of Related Literature

2.1. Theoretical and Conceptual Perspectives of Food Security

Food security has been defined as a situation when all the people, at all times, have physical and economic access to sufficient, safe and nutritious food needed to maintain a healthy and active life (FAO, 2010). The concept of food security is built on four pillars: (i) Food availability: physical presence of sufficient quantities of food at a household level, whether from production or markets; (ii) Food access: people have sufficient resources to obtain appropriate food for a nutritious diet; (iii) Food utilization: people have sufficient knowledge of nutrition and care practices and have access to adequate water and sanitation; (vi) Food stability refers to the need to assess food in both short and long term (Hartwig, 2011). These elements in the definition are inseparable when it comes to determining whether or not an area is food secure. Hence, availability of food does not necessarily ensure accessibility but it is one element that contributes to the whole equation. Food may be available globally but not to all countries, all households, or individuals within the household have access to it (Dauda, 2010). In general, the recent concept of food security has given more attention to households and individuals than its availability at international, national, regional, *wereda* or *kebele* levels. This is because, as already indicated, increasing food production, supply and sufficiency at broader levels does not necessarily ensure that each and every individual is food secured. This is why, as reported by the (WFP, 2010), over 1 billion people throughout the world have been suffering from hunger and malnutrition despite the fact that there is more than sufficient food supply at global level.

Food insecurity is defined as a condition in which people lack the basic food intake necessary to provide them with the energy and nutrients required for fully productive lives (FAO, 2010). Other researcher describes food insecurity as the situation of not having enough food for all people at all times and occurred in a situation where available food is not accessible due to erosion of people's entitlement to food (Maxwell, 1992).

Depending upon the times of its occurrences, food insecurity can be categorized into chronic food insecurity and transitory food insecurity Maxwell, 1992. Chronic food insecurity is a persistent and inadequate diet caused by the continual inability of households to acquire needed food and it is rooted in poverty. Transitory food insecurity is a temporary decline in household's access to needed food, due to factors such as instability in food prices, production or incomes (World Food Summit, 1996). Some people further categorize transitory food insecurity into cyclical and temporary food insecurity (Maxwell, 1992). Temporary food insecurity occurs for a limited time because of unforeseen and unpredictable circumstances. Cyclical or seasonal food insecurity occurs when there is a regular pattern in the periodicity of inadequate access to food. This may be due to logistical difficulties or prohibitive cost in storing food or borrowing. Chronic food insecurity is commonly perceived as results of overwhelming poverty indicated by a lack of assets. Both chronic and transitory problems of food insecurity are wide spread and common in Ethiopia.

2.1.1. General Explanation of Food Insecurity

Many different theories have been developed to explain food security with each of them pointing out particular aspects in order to understand the food security situation. The general explanation of food insecurity is mainly emphasize on the impacts of drought, flood, land degradation, inaccessibility to productive resources and population pressure on the performance of household food security situation. Hence, results in disruption of agricultural production and attributes the household to decline in food availability. Among the many theoretical approaches demographic and climatic theories and models of food insecurity FAD and FED were also utilized to analyze this study. Study by Devereux stated that the existing models result useful to interpret food security situation, but on their own they cannot fully explain the problem although debates about some of its fundamental assertions remain unresolved until today (Devereux, 2000).

2.1.2. Demographic Theories

The fundamental concern of demographic theory is the relationship between population growth and food availability in which two theories take two contentious positions in relation to food availability and population growth. The first theory is the Malthusian perspective which purposes that uncontrolled rapid population growth is the cause of food shortage and argues that, unless

population growth is checked, food production cannot keep pace with it. According to Dyson, (1996) cited by (Kayunze, 2007), argue that food insecurity is caused by having being too many people compared to the amount of food produced. Population increases in a geometrical manner and food production increases only in an arithmetical ratio. This means that a strong and constantly operating check on population from the difficulty of subsistence is a necessity. However, Malthus theory faces critiques from different scholars as the theory fails to allow for means of improving household food security (Degefa, 2005). However, other Anti-Malthusians argue that there can never be too many people in a country. To sum up, the two theories are the most competing theories in the analysis of population growth and food production.

2.1.3. Climatic Change

Climate change will affect all four dimensions of food security: food availability, food accessibility, food utilization and food systems stability. It will have an impact on human health, livelihood assets, food production and distribution channels, as well as changing purchasing power and market flows. Its impacts will be both short term, resulting from more frequent and more intense extreme weather events, and long term, caused by changing temperatures and precipitation patterns, People who are already vulnerable and food insecure are likely to be the first affected (UNFAO, 2008). Climate change is already hampering agricultural growth by reducing food productivity and production and adds a layer of pressure to already fragile food production systems. Drought, flood and hurricanes, ocean acidification and increasing sea levels, has already put people's lives at risk (UNFCCC, 2007).

2.2. Food Availability Decline (FAD)

Food Availability Decline (FAD) approaches was first coined by Adam Smith and Malthus who argued that famine is primarily caused by a sudden decline in food availability. They emphasize food availability at local levels in contrast to Entitlement Approach which examines food availability at aggregate or macro levels. They argued that the crop failures due to natural catastrophes often result in food prices, increased demand to deal with uncertainty and sales of possessions to obtain food. The decline in purchasing power impacts the poor and those who are negatively affected by bad weather to become famine victims (Line, 2000). According to this

approach people starve because of a local, national or regional decline in food availability to a level below the minimum requirement for survival. However, FAD has been criticized for its only dealing with supply side which disregards the demand side. Many argued that FAD alone is not sufficient to explain food security (Sen A. , 1984). It failed to consider people's income and purchasing power. In addition, it failed to address the vulnerability differences and access to food from outside the affected area (Ejiga J., 2006).

2.3. Food Entitlement Decline (FED)

The second is Food Entitlement Decline (FED) this approach is not a theory of famine causation in competition with other theories such as FAD or Malthusianism. It is a framework for the analysis of famine processes at the micro level. *Entitlements have been defined by* (Sen A. , 1984) *as "the set of alternative commodity bundles that a person can command in a society using the totality of rights and opportunities that he or she faces"* Sen. analysis of famines applied this disaggregated approach to absolute poverty, that means failure in food supply is the only factor causing hunger. He contended that famines can happen in places where there is food available at national or local levels. Sen proffered two concepts, the standard Food-Availability-Decline (FAD) explanation of famines was clearly insufficient, and could be devastatingly misleading. Most people died because they lacked definite socially sanctioned claims, effective legitimate command, over food that was available. He presents the failure of entitlements to cover subsistence needs as the key cause of starvations and death in famines. He then uses a set of novel concepts; on the ability of people to command food through the legal means available in the society.

1) production-based entitlement (growing food);
2) trade-based entitlement (buying food);
3) own-labor entitlement (working for food); and
4) Inheritance and transfer entitlement (being given food by others).

What a household is entitled is constrained by a collection of relationships that covers the legal, political, economic and sociocultural systems. For instance, take a household farmer that has five milking cows and who sales his milk and other dairy products daily at the market where he also buys grains and meat. If one of his cows dies the endowment of the household farmer will

diminish and his ability to buy food for his family will decrease. Following the same example, if additionally the price of grains raises there will be a change in the e-mapping will have changed. The household farmer can only exchange the endowment in the market at fixed relative prices that do not cost more than the value that the total e-mapping allows him. In both circumstances his entitlement or what he obtained from the transaction changed only because either the endowment or the e-mapping had changed before (Osmani, 1993). While adequate availability is necessary, it does not ensure universal access to "sufficient, safe and nutritious food." Access is most closely related to social science concepts of individual or household well-being. It reflects the demand side of food security, as manifest in uneven inter and intra-household food distribution and in the sociocultural limits on what foods are consistent with prevailing tastes and values within a community. Through the access lens, food security's close relationship to poverty and to social, economic, and political disenfranchisement comes into clearer focus. But because access is an inherently multidimensional concept, measurement becomes more difficult than with availability (Christopher B. Barrett, 2010). Food availability is when all people have sufficient quantities of food available on a consistent basis. Food availability is determined by food production and food trade (FAO, 2008).

As Sen (1981) emphasized, there is no technical reason for markets to meet subsistence needs—and no moral or legal reason why they should. There are two important things that have to be noted. First, food production is not the problem; most researchers agree on the fact that there is enough food to feed all humans. Second, an adequate supply of food at the global or national level does not guarantee food security at the personal level (FA0, 2008). Food security is a problem of distribution.

Entitlement is a comprehensive concept, incorporating the effects of diverse factors, including food availability. So if anyone suffers because of availability decline, he also suffers an entitlement decline. It therefore makes no sense to divide up the famine victims into two groups' one suffering from FAD and other from FED implying thereby that the entitlement analysis applies only to the latter. It is of course conceivable that one group suffers only from the repercussions of aggregate FAD on their individual entitlement sets while another group suffers due to forces that are independent of FAD. But even in that case both groups would be said to be

suffering from an entitlement loss only the source of the loss would be different; so the entitlement analysis would apply to both cited by (Osmani, 1993).

Despite its strength, FED model has also some drawbacks to be addressed before directly applying it as a framework to study food security. FED theory failed to consider intra-household distribution of food, exclusion of relief entitlement (food aid), heavily focused on food deprivation and presumption that famine mortality is induced by starvation, neglect cultural preferences and tastes in food consumption and the like.

According to Waal, entitlement theory has been criticized on two accounts. First it implies a straight forward sequence of entitlement failure leading to hunger and then to malnutrition, starvation and death. Second it implies that people's actions are largely determined by their need to consume food (Waal, 1990). An important extension to entitlement theory focuses on the role of investments in determining house hold vulnerability to food insecurity. When households are able to generate a surplus over and above their basic food requirements, the excess resources are diverted into assets of different kinds which can be drawn upon when they face crisis. In such circumstance we may relate food security to the idea of vulnerability to poor resource endowments of households, focusing more clearly on the risk where avoidance becomes central to attaining food security (Swift, 1989).

2.4. The Four Pillars of Food Security

According to World Food Summit, 1996, food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life. This widely accepted definition points to the following dimensions of food security.

Table 2.1: Food security dimensions

Food Security Physical availability of food	Food availability addresses the "supply side" of food security and is determined by the level of food production, stock levels and net trade (Export-Import)
Economic and Physical Access to food	An adequate supply of food at the national or international level does not in itself guarantee household level food security. Concerns about insufficient food have resulted in a greater policy focus on incomes, expenditure, markets and prices in achieving food security objectives
Food Utilization	Utilization is commonly understood as the way the body makes the most of various nutrients in the food. Sufficient energy and nutrient intake by individuals is the result of good care and feeding practices, food preparation, and diversity of the diet and intra-household distribution of food. Combined with good biological utilization of food consumed, this determines the nutritional status of individuals
Stability of the other three dimensions over time	Even if food intake is adequate today, it is still considered to be food insecure if there is inadequate access to food on a periodic basis due to adverse weather conditions, political instability or economic factors (unemployment, rising food prices).

Source: The EC-FAO Food Security Program. "Food Security Information for action: Practical Guides." (FAO, 2008).

The above four dimensions (availability, access, utilization and stabilization) to food security are different but very interrelated concepts which helps to confirm the existence of food security. Food production and domestic food stocks, commercial food imports and food aid have a direct impact on the level of food availability. Food availability influences food prices that determine household's purchasing capacity which in turn depends on the level of their income. Access to food depends on consumption level and on food availability. Food access through intra-

household food allocation affects individual food intake which, in turn, combined with health status and care behaviors determines the individual nutritional status. As explains that food availability is necessary but it is not enough to guarantee that there is access to food (Webb, 2006). Food access in turn is necessary but not sufficient to ensure that food utilization occurs. The authors further confirm that stability is another key dimension of food security which is gradually gaining importance as well as recognition. They argue that risks such as conflicts, job losses, unstable climatic conditions and diseases which are epidemic in nature can affect all the three equally important dimensions of food security. It is also critically linked and influenced by factors within the wider policy and social environments.

As we see below the four dimensions of food security, there exist a sort of relationship, which could be considered as hierarchical, between the three major domains of food security but these are only necessary and not sufficient conditions in their own respects to assure the presence of the other (Webb, 2006). Food utilization is affected by proper food processing, dietary intake, and adequate knowledge of nutrition, proper food storage conditions, child care practices, and health status. In any situation, the problem of food security could be the result of food available being inadequate; a specific group of the population not having adequate access to food, or the result of poor utilization of food by households (Coates J. A., 2007), (FAO, 2008).

2.5. Causes of Food Insecurity

Food insecurity in Africa is considered as a challenge across the region, and that its causes are complex, attributed to multiple, and often intertwined factors (Pauw & Thurlow, 2011). The main concerns are the impacts of climate change, an increase in food prices, loss of subsistence and traditional food crops and cash crop (FAO, 2010).

Literature suggests that the causes of Ethiopian food insecurity are multifaceted and complex in nature. As noted in (FDRE, 2002) report, adverse climate changes combined with high population pressure, environmental degradation, technological and institutional factors have led to a decline in the size of per capita landholding causing a severe food insecurity problem in the country. Floods both riverine and flash floods regularly cause crop and infrastructure damage, contributing to farmland degradation and erosion, water quality, and loss of livelihoods and life.

Droughts can result in sharp reductions in agricultural output and related productive activity and employment, with multiplier effects on the national economy (Devereux, 2000). In addition, low level of education, low farmland size, less oxen ownership, low productivity of land, and labor, poor technology application, high incidences of crop and livestock pests and diseases, poor health status of the household's, low employment opportunities, inadequate processing, storage and market access, erratic rainfall, are identified as major elements of food insecurity. Also, high prevalence of HIV/AIDS could contribute to the most productive household members, decreased individual and household economic capacity, and increased caregiver burden (Gillespie & Kadiyala, 2005).

These various specific factors are grouped into environmental, economic, socio-cultural, and institutional/policy factors and discussed in proceeding sections.

2.5.1. Demographic and Socio-Economic Characteristics

The importance of household size as a major contributing factor of household agricultural production and hence food security, through labor supply, has been well documented (Anna, 2013). Household size is among the potential factors influencing households' food security status (Maxwell S. , 1996). Increasing family size, according to the literature, tends to exert more pressure on consumption than the labor it contributes to production. Typically large family size has significant relationship with much greater risk of poverty. According to World Bank 2014 report, Ethiopia has made significant strides on family planning awareness which contributed to an important drop in total fertility rate, from 7 children per woman in 1995 to 4 children in 2011 (World Bank, 2014).

Concerning age and food insecurity; the age of the household head is expected to have an impact on his or her labor supply for food production (Babatunde, 2008). The effect of age is likely to be either positive or negative. In his study, (Hofferth, 2004), argues that the higher the age of the household head, the more stable the economy of the farm household, because older people have also relatively richer experiences of the social and physical environments as well as greater experience of farming activities. A positive effect of age means that as people get older the effect of age gets stronger (Kuwornu, Suleyman, & Amegashie, 2012). Whereas, (Babatunde, 2008), claim that increase in age decreases food security. This could be attributed to the fact that the

productivity of old household head will decline as they get old thereby has impact on their food security status. Marital status has a strong implication on food security. The significance of marital status on agricultural production can be explained in terms of the supply of agricultural family labor (Amaza, 2009). Meaning, the more household heads stay in a marriage, the more labor force available for agricultural activities in the field. Being married profoundly enhances family income and wealth.

A study conducted by Haile and et al in Koredegaga Peasant Association, *Oromia* Zone, suggests that education level is another demographic factor that strongly influences household food security (Haile, 2005). Educational attainment by the household head could lead to awareness of the possible advantages of modernizing agriculture by means of technological inputs; enable them to read instructions on fertilizer packs and diversification of household incomes which, in turn, would enhance households' food supply (NAJAFI, 2003). The level of education is believed to influence the use of improved technology in agriculture and, hence, farm productivity. The level of education determines the level of opportunities available to improve livelihood strategies, enhance food security, and reduce the level of poverty. It affects the level of exposure to new ideas and managerial capacity in production and the perception of the household members on how to adopt and integrate innovations into the household's survival strategies.

Land degradation is a major constraint to agricultural productivity. Food production is dependent on a natural resource base supplying essential ecosystem services such as soil nutrient, climate regulation as well as pollination and pest control (Nellemann C, 2009). The agriculture sector is thus inherently susceptible to risks and uncertainties due to the very volatile nature of the environment. On one hand, advances in agricultural technology have increased the potential for improving living conditions in rural areas. On the other hand, environmental degradation poses a grave threat to the livelihood of the population in many countries. Environmental factors has direct influence on dependent variables includes environmental constraints, e.g., poor soil quality, land degradation, frost, irregularities of rain pattern, water scarcity, flood, climate change that leads to drought

2.5.2. Economic Factors

Land is considered as the primary means for generating the livelihood for most of the poor living in rural areas. It is generally argued that access to land will affect not only productive outcomes but also the ability of the poor to access credits, make investments, and benefit from the law in general (Yigremew, 2006). Land tenure insecurity is a severe constraint to peasant production. Redistribution of land by the state has achieved socially equitable outcomes, but at the cost of household food security. As stated by Quan (2000), radical egalitarian measures, as practiced in Ethiopia and Tanzania in the 1970s and 1980s, probably undermined overall farm production and food security, leading to increased poverty. This was due to the high level of insecurity generated by fears of further redistribution and a consequent unwillingness to invest effort in measures to improve soil conservation and enhance fertility (Quan J. , 2000). The larger the farm size, the higher the production level. It is, thus, expected that households with larger farm size are more likely to be food secure than those with smaller farm size. A typical arrangement is to rent in land and pay the owner half the production from this plot. Livestock possession is also expected to reduce food insecurity as it is an important source of livelihoods for farmers.

FAO's 1999 report indicates that employment in off-farm and non-farm activities are essential for diversification of the sources of farm households' livelihoods. It enables households to modernize their production by giving them an opportunity to apply the necessary inputs, and reduces the risk of food shortage during periods of unexpected crop failures through food purchases. (Maxwell D. G., 1992). Stephens introduced the idea of food security as a demand concern, where it is viewed in terms of entitlements, which influence capacity to access food. (Stephen., 2010). In this regard, the ability of households to access food either through production, purchase or transfers becomes important in defining household food security. As stated by (Torero, 2014), the UN Food and Agriculture Organization assume that high rates of malnutrition can lead to a loss in gross domestic product (GDP) of as much as 4 to 5 percent per year. Therefore, to achieve food security for its productive citizens, a nation needs to increase agricultural production through research and innovative technology. Furthermore, as a means of optimizing their food production, developing countries must use drought resistant crops and soils and invest in rural infrastructure by building roads, irrigation, and storage facilities (Pieters, 2013).

2.5.3. Socio-Cultural Factors

Gender is believed to be a key factor of food security. According to an old Chinese proverb, "women hold up half the sky." In the battle against hunger and poverty, women, and especially rural women, most certainly hold up the heavier half. (Chinery, 2011). Throughout the world, women are the principal guarantors of nutrition, food safety and quality at the household and community levels. Rural women play an essential role in the four pillars related to food security, availability, accessibility, utilization and stability. However, there is a gender gap inequality in ownership of access to and control of livelihoods assets negatively affects women's food production and food security. Access to food within the household is determined by cultural practices and power relationships within the family. Although food may be available, adequate amounts to maintain nutritional intake may not necessarily be as accessible to women compared to men, (FAO, 2013). In Ethiopia gender-based discrimination and inequalities are very much apparent, although the government is working aggressively towards alleviating such problems.

2.5.4. Institutional / Policy Factors

Land quality measures farmers' perception of the fertility of their farmland. Any farm input including use of fertilizer that augments agricultural productivity is expected to boost the overall production. This contributes towards attaining household food security. (Brown, 2004). According to the literature, subsistence farming, by its nature, is production for direct consumption. The government of Ethiopia made significant changes to its existing food security program by scaling up its level of intervention toward food security problems. The current economic policy of Ethiopia has aimed at two main issues: rapid and sustainable development and fair distribution of development benefits among citizens. The main strategy adopted to realize this policy is Agriculture Development Led Industrialization (ADLI). Agricultural growth is accepted as guarantee against food insecurity in the country. Food security strategy is also in place focusing on three important aspects: increasing food and agricultural production, improving food entitlement and strengthening the capacity to manage risks (Ramakrishna G. & Demeke, 2002).

2.6. Coping Strategies

Food insecurity coping strategies are activities, which maintain food security or combat food insecurity that has occurred at the household level. Coping strategies represent a set of activities that are undertaken in a particular sequence, by a household in response to shocks that lead to declining food availability (Curtis, 1993), based on (Davies, 1993). Coping strategies are included in the more general livelihood strategies which are the combination of activities that people choose to undertake in order to achieve their livelihood goals. Coping strategies are directly attributed to household activities rather than external factors. According to literature, households adopt both ex-ante and ex-post coping strategies in their endeavor to be food secure (Maxwell et al., 2008).

(Maxwell D. G., 1996) classified household responses to food insecurity into two: coping strategies and adaptive strategies. Coping strategies are responses made by households to improve the declining situation of households food security while adaptive strategies involve, a permanent change in the mix of ways in which food is required, irrespective of the year in question and it refer to long term adjustment. The most commonly practiced coping strategies during abnormal season include short term dietary change, changing intra household food distribution like skipping adults to feed children, limiting size and frequency of food, borrowing and gifts from relative and friends, mutual support mechanism, selling of livestock and fire wood, cash for work and relief assistance, etc. while the commonly used Adaptive strategies include risk minimization, food and income diversification mechanism, planting damage resistance crop, cultivating marginal soils, etc. (Maxwell,1996).

Generally, there are four categories of strategies, namely consumption, expenditure, income, and migration. Consumption strategies include buying food on credit, relying on less-preferred food substitutes, reducing the number of meals eaten per day, regularly skipping food for an entire day, eating meals comprised solely of vegetables, eating unusual wild foods, restricting consumption of adults so children can eat normally, and feeding working members at the expense of non-working members. Expenditure strategies include the use of savings and avoiding health care or education costs in order to buy food. Income strategies include the use of pension, small

businesses and selling household and livelihood assets such as livestock. Migration strategies include sending children to relatives or friends homes or migrating to find work (Maxwell et al., 2008).

Based on (Watts, 1988), model cited in (Maxwell & Frankenberger, 1992), the household farmers coping strategy patterns (indicated in Figure 1) were modeled to show the sequence of responses that the household employ. According to the model, the coping strategy at the lowest stage of the ladder, such as limiting food portions and restricting adult's intake, required little commitment of domestic resources. The household farmers at this stage can easily recover from the anxiety once the crisis has been relieved due to ripening of crops or intervention schemes like food-for-work. The worst problem occurs if the crisis persists and forces them into a greater commitment of resources, such as, eating seed stocks and selling-out farm assets to cope with the shortfalls. They may also be forced to collect firewood and burn charcoal for sale to meet subsistence food needs. Such practices, certainly, damage the natural vegetation cover and may lead to subsequent dreadful environmental and climatic events. As the state of condition worsens, they might employ more irreversible coping strategies like selling crucial domestic assets, making the situation harder to restore to its pre-crisis state. The strategies at the highest level of the ladder, such as begging, are signs of complete failure to cope with find crisis that may lead to further failure and permanent migration.

A model of coping strategy to food insecurity

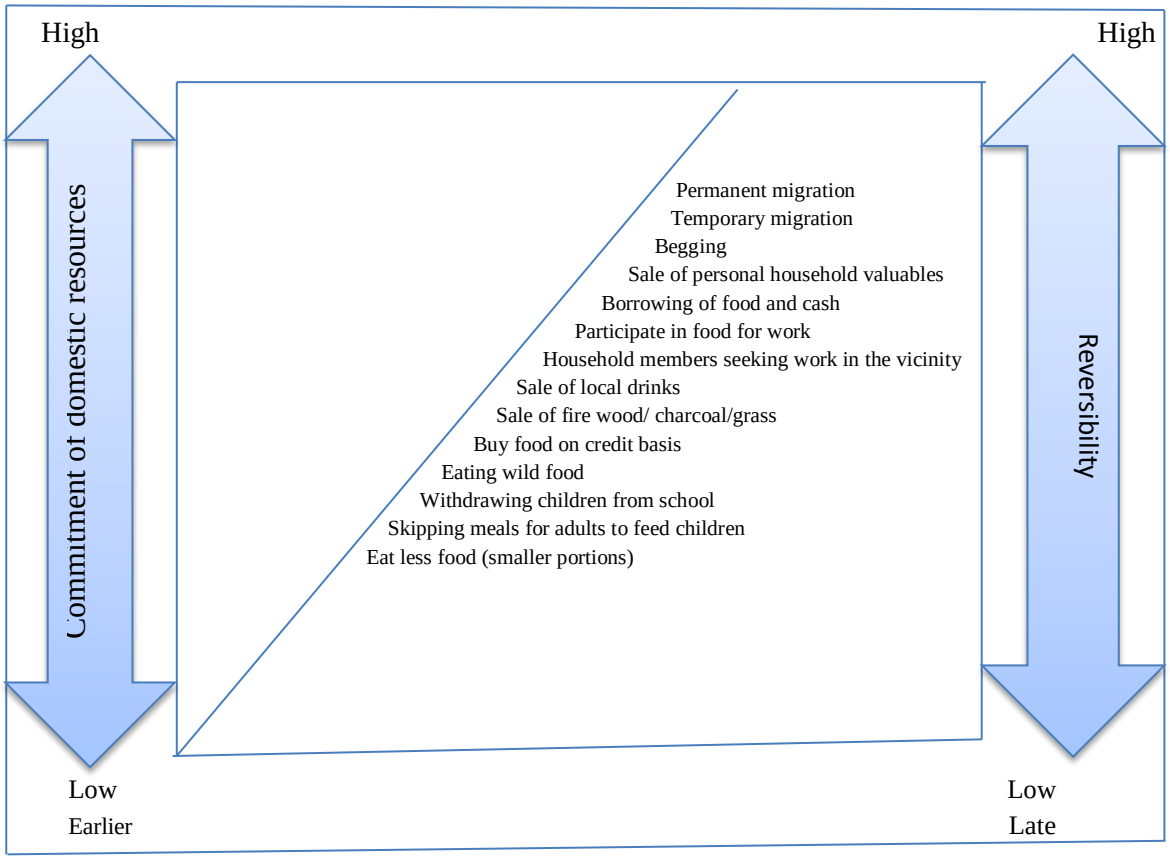


Figure 2.1: A model of coping strategy to food insecurity in context of Kimbibit (Source: modified to Kimbibit causes and coping strategies among rural farmers from (Watts, 1988), model cited in (Maxwell & Frankenberger, 1992).

2.7. Indicators of Food Security

In order to measure household's food security status, physical availability of food, economical physical access to food, and stability is taken into account as an indicators of food security for the study.

Table 2.2: HFIAS, asset position and food security status analysis

Indicators of Food Security		Techniques of Analysis
Food Security Analysis	Physical availability of Food	Food Production/harvested and purchased in Kilogram/ *Betemad*
	Economical physical access to food	House Hold Food Insecurity Access Scale (HFIAS) and Coping Strategy Index (CSI)
	Stability	Production activities, long term trend analysis of the amount rainfall

Household Food Insecurity Access Scale is a recent version of HFIAS in one of the most crucial techniques used in the investigation of the household Food Security status in this study area. It was a key technique for the investigation of the access component of Food Security in particular. HFIAS is the most up to date, relatively simple to run and methodological rigorous (Swindale, 2006), measures of Food Insecurity. The validity and reliability of the HFIAS in Food Security Analysis have been tested by different resources in different rural parts of the world. HFIAS techniques was employed to classify the households into food security food insecure groups by further classified mildly, moderately, severely food in secured (Coates J. A., 2007), (Frongillo, 2003).

2.8. Coping Strategy Index (CSI)

Coping Strategy Index is another crucial food security analysis techniques used in this thesis. This index is a simple, quick and straight forward tool to run and understood. It was developed by CARE/UNWFP in 2003 and modified in 2008 for Food Insecurity (Maxwell & Caldwell, 2008).

2.9. The Conceptual Framework

In order to better understand the factors that are affecting food security of households in Kimbibit *Wereda*, a conceptual frame work has been developed as indicated in figure 3. The design is based on the literature review and discussion focusing on what researchers commonly agree about food security. The description of the frameworks for the analysis of food insecurity has emphasized the complexity of an issue with multiple faces. Thus, no single measure is appropriated for understanding the phenomenon. Environmental /climatic factors, economic factors, socio-cultural factors and institutional/policy factors were examined. In order to be food secure, adequate supply and access to food on individual, household or population level must be met all times. If there is insufficient access to food owing to natural, socio-economic and political incidence like droughts, floods and political instability or conflict, price fluctuation, sudden political economic or climatic shocks like conflict, high food prices, or droughts then it causes food insecurity. Achieving greater food security is a moral responsibility in the part of the community in Kembibit *Wereda*. It also directly in the self-interest of the government because food security causes unrest and instability which in turn affects national security.

The independent variables in the equation include environmental factors, demographic factors, economic factors, social factors, institutional and policy influence, while the dependent variable is food security. These are factors that seem to have a huge effect on food security on households in Kimbibit. As shown on figure 3, the demographic characteristics of respondents which consist age, sex, marital status, family size and level of education of the household have a direct influence on the dependent variable. Environmental/ agro-ecological factors have direct impact on the food security and also has an indirect linkage pertaining to catastrophic events such as drought, land degradation, frost, deforestation, irregularities of rain patter, flood, water logging which are projected to multiply as a consequences of climate change leading to huge crop loss hence, threatening food security and affects. Whereas, economic factors includes income generating activities like on-off farm activities, farm and livestock sizes, ownership and access to land have influence on access to food of household', which again influence food insecurity coping strategies including consumption, expenditure, income and migration.

The social/ cultural factors including education, gender inequalities, and division of labor at the household level, unemployment, political instability, and traditional farming practices leading to various environmental hazards. Institutions responsible for developing and or enforcing policies can influence agricultural extension service, financial inability to use improved seeds, fertilizers, pesticides, herbicides and market and food price fluctuation. On the other hand, if household is unable to use improved seeds, modern tools as well as fertilizers, can eventually end up in having low income. This again influences income level and access to food which leads to food insecurity coping strategies. Others include absence of agricultural services, Social/cultural factors; (poor division of labor at the household level, traditional farming practices.

Conceptual framework of food insecurity

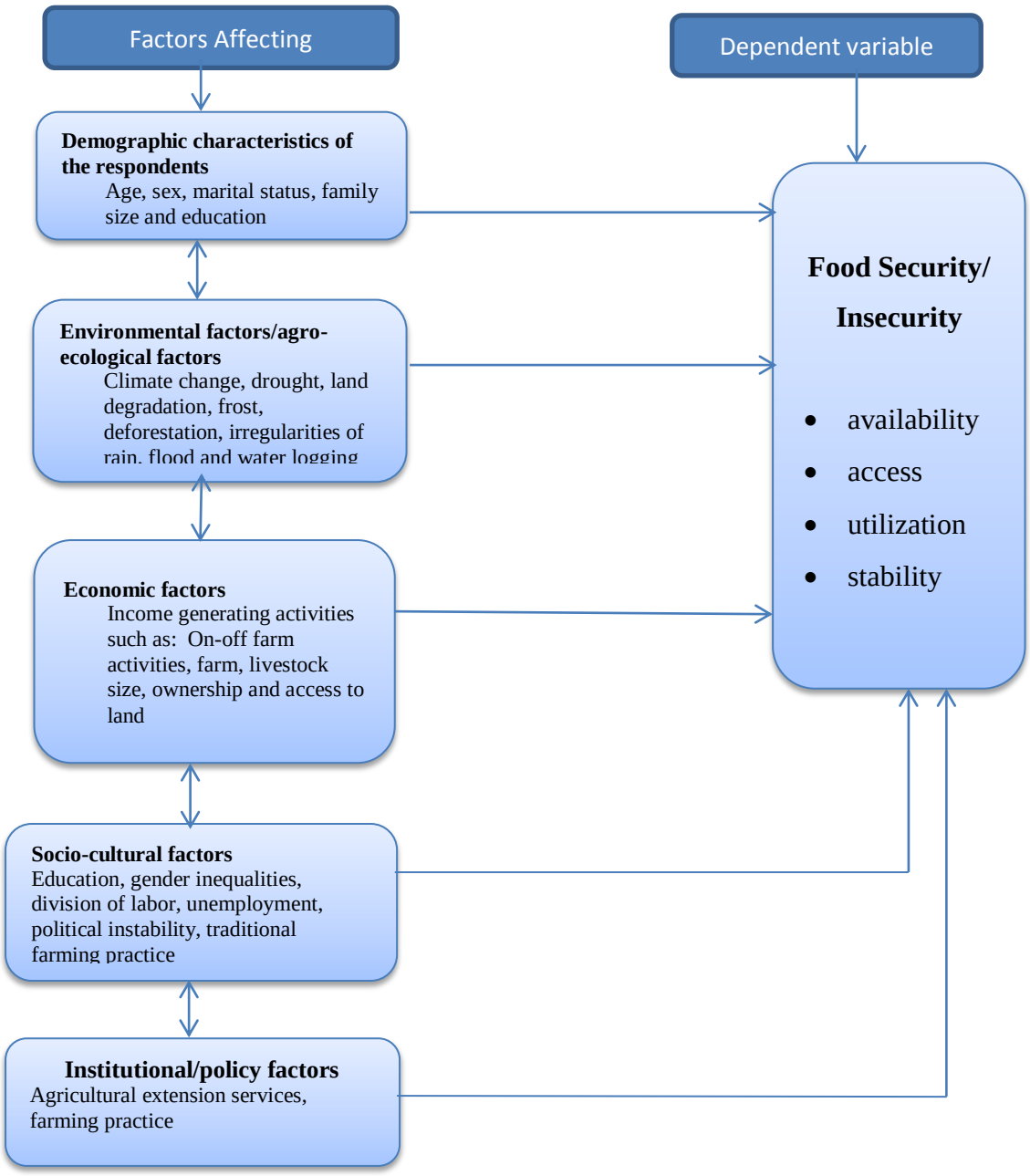


Figure 2.2: the Conceptual Framework of Food Security/Insecurity and Coping Strategy showing relationship between variables

Chapter Three

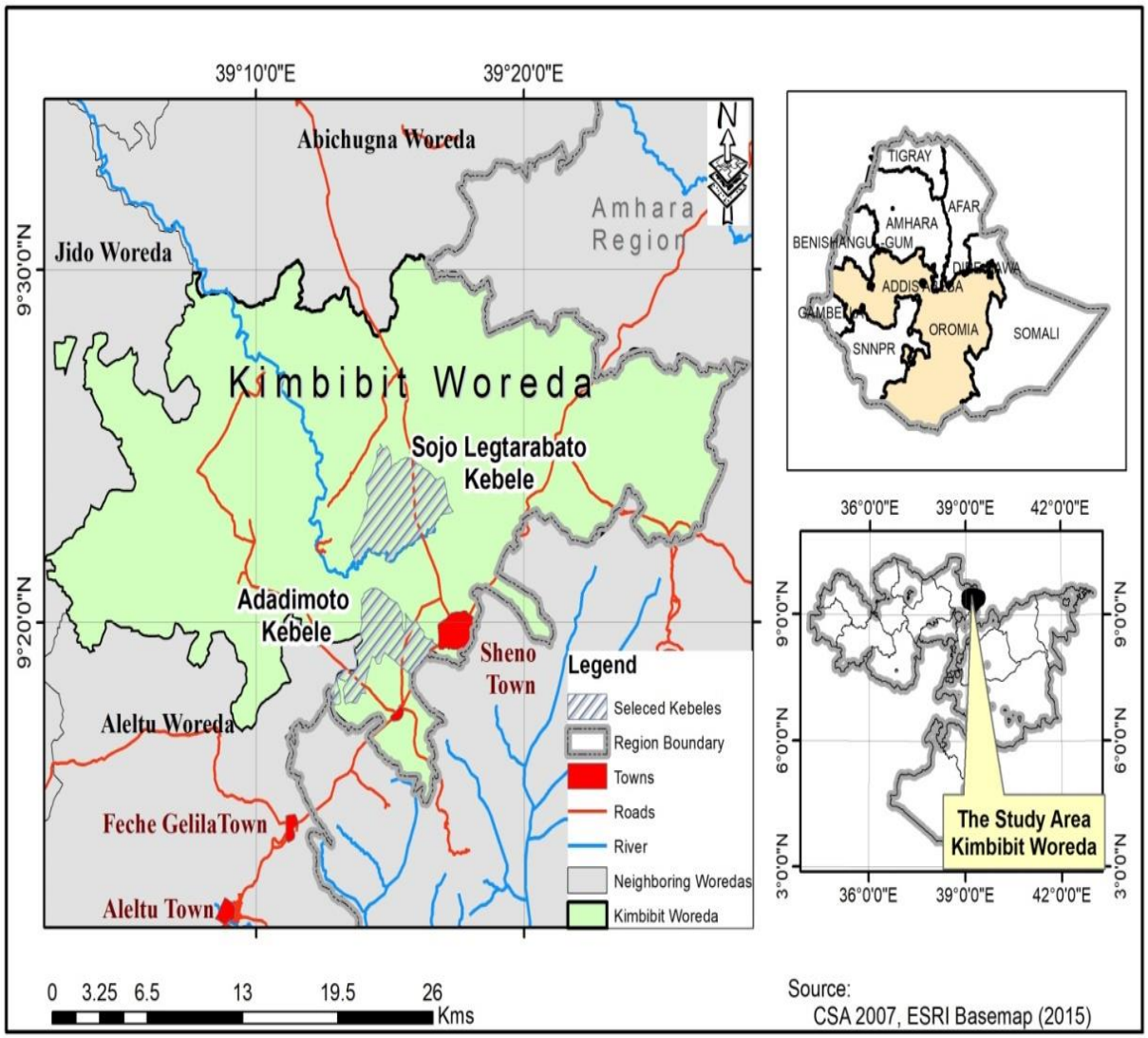
3. Background and Research Methodology

3.1 Background

Geographically, Kimbibit is one of the *Woreda*s found in North Showa Zone of Oromia Regional State, Ethiopia. As indicated on the map below, Kimbibit is bordered on the south by Berehna Aleltu, on the west by Wuchalena Jida, on the north by Abichuna Gne'a, and on the east by the Amhara Region. It is 80 KM away from Addis Ababa. The administrative center of Kimbibit *Wered*a is in Sheno town. The total area of the *wereda* is 75,827 hectare. Administratively, the *Wereda* is organized in 29 rural and 2 urban *kebeles*. The total population of Kembibit *wored*a is about 90,904, of which 45,246 are female and 45,658 are female. The urban dwellers constitute 17.4% (15,780) of the total population (Kimbibit Agricultural Bureau, 2012). The altitude of the area ranges from 2620m to 3020m above sea level and predominantly has Dega (high land cold agro-climatic zone) climate. The *wereda* gets an average annual rainfall of about 1013mm with a temperature ranging from 17 degree Celsius to 23 degree Celsius.

The major purpose of land use is for crop cultivation which covers 40,563hectare of total area. Whereas, private grazing land takes up 22,970 hectare of the total land, with 3571 hectare covered by forest. The remaining 2274.81hectare of the land is settlement area, and 7,939.19 hectare is degraded land (Kimbibit Agricultural and Rural Development Office, 2014). Much of the land is used for crop production and a few parts as pasture (grazing) lands. The main category of livelihood is mixed farming focusing on crop and livestock production. Crop production is entirely rain fed. Farming and animal rearing is the main livelihood of the population in the *wereda*. Hence, it is best known for barley, wild oats, wheat, horse beans, linseed and lentils. Barley, wild oats, wheat and horse beans are the main crops grown for home consumption. The main crops sold are wheat, linseed, lentils and horse beans. Cattle, sheep and equines are the main types of livestock (Kiaya, 2015).

Figure 3.1: Geographical map of Kembibit *Wereda*



Source: CSA 2007, ESRI Basemap (2015)

3.2. Research Design

This research employed cross-sectional survey design to identify the causes and coping strategies of food insecurity in Kembibit *Wereda*. Quantitative approach is used to assess household specific data such as food security indicator, household composition, possession and access to assets, household income and food intake pattern. Qualitative data involves the various livelihood activities including access to resources, vulnerability to shocks with respect to food security, and location-specific challenges facing smallholder framers. Focus group discussion and key informant interview have been used to find more perspective to the subject and cross check the data generated through household survey.

3.2.1. Data Type and Sources

The primary data, such as, food shortage, family size, income level, farming practice, access to resources including livestock, land size and fertility have been collected from household farmers, key informants, and *wereda* agriculture bureau.

3.2.2. Data Collection Tools/ Instruments

For the purposes of gathering the above-mentioned research data from those sources, different data collection methods such as household survey, focus group discussion and key informant interviews have been used. In order to triangulate the results of the primary data collected, secondary source of information have been reviewed. Secondary data have been generated by reviewing various documents including reports made available by the *Wereda* Administration.

3.2.2.1. Household Survey

In order to generate adequate and reliable first hand data, structured questionnaire, with both open and closed ended questions have been designed and distributed to sample farm households. The questionnaire was pilot-tested which helped to check some problems like ambiguities and redundancies, and adjustments have been made as necessary. A default sample size of 30 participants is recommended for pre-testing a questionnaire (Thomas, DS, PM, & A., 2015). In

view of this, 30 participants selected randomly, 15 from each *kebele*, to respond to the pilot test. Since farmers in the study area speak *Afan* Oromo or Amharic, the questionnaire that was initially developed in English Language has been translated in to Amharic – the language the farmers and data collectors understand. Qualified data collectors who know the area and understand Amharic and *Oromiffa* languages have been hired to conduct the survey questionnaire. A detailed orientation has been provided to the data collectors to ensure the accuracy and clarity of the data. Annex 2 shows the Amharic translation of the survey questionnaire.

3.2.2.2. Key Informants Interview

A total of eight key informants have been interviewed to share their experiences and opinions about food security situation of the people in the study *kebeles.* These key informants were purposively selected from elderly people, relevant experts from agricultural bureaus and *kebele* administrations who have ample experience and detailed knowledge about the area's food security situation and are the authority on the subject. As recommended by (Bryan Marshall, 2013), 15 – 20 informants are adequate in a case study. Therefore, 20 farmers (nine from each *kebele*) and two experts from agricultural bureau were included in the informant interview.

Photo 2.1: Partial view of farmers participated in KII

3.2.2.3. Focus Group Discussion

In order to generate more firsthand data for the research, two focus group discussions were conducted with farmers in two *kebeles*, one at each *kebele* consisting of six discussants each, and twelve in total. Discussion participants were randomly selected based on gender and age. The objective is to draw opinion from both female and male household as well as elderly and young farmers in order to triangulate points of view of participants.

3.2.3. Sampling Method

The study used a multiple-stage sampling procedure in order to select sample households for the survey interview as detailed below. Kimbibit *wereda* has 29 *kebeles*, where 20 of them are grouped under PSNP and 9 of them under non-PNSP. The 20 *kebeles* which are beneficiaries of the PSNP were targeted, of which 2 *kebeles* were randomly selected for the survey to assess the extent of food insecurity, possible causes, and coping strategies used by the households.

3.2.3.1. Sample Size Determination

The actual sample size was determined using the following formula developed by (Yamane, 1967). This formula was used to calculate the sample size as shown below:

$$n = \frac{N}{1 + N(e)^2}$$

Where n is the sample size, N is the population size, and e is the level of precision. When this formula is applied to the study population, we get the sample size indicated in the table below. Where n =Sample size (236), N=population (3959) and P=0.5(50%)

Table 3.1: Sample size of Kimbibt *Wereda*

Name of *Kebele*	Population (Household) Size	Sample selected
Adadimoto	1364	82
Sojo Legetarabato	2595	154
Total Sample Size	3959	236

Therefore, as indicated in the above table, out of the total population size, the survey sample for the study is 236. This sample size is distributed proportionally to the two *kebeles* and thus, a sample size of 82 is assigned to *kebele* Adadimoto , sample size of 154 is assigned to *kebele* Sojo Legetarabato. Based on these sample size, questionnaires were completed by going to different villages randomly.

3.3. Methods of Data Organization and Analysis

The relevant quantitative and qualitative data collected using various techniques as described above analyzed using different methods. Analysis of the quantitative data was then conducted using SPSS Version 20. All qualitative data collected through interview and focus group discussion manually extracted by key common issues, coded and analyzed by categorization, classification and summarization techniques using MS-Excel. The findings have then be systematically organized, summarized and presented in the form of tables and figures as appropriate. Moreover, books, journal articles, different documents and publications were reviewed to understand household food security situation and enrich the findings.

Chapter Four

4. Data Analysis, Presentation, Interpretation and Discussion

4.1 Result and Discussion

The purpose of this chapter was to analyze, present, interpret and discuss data in order to answer the research questions. Data collection tools were questionnaires which had open ended and closed ended questions and Key Interview Informant and Focus Group Discussion schedules. This chapter discusses the demographic characteristics of respondents, gender, and age, level of education, marital status and family size. The variables under the study area included: how environment, economic, socio-cultural, institution and policy influence food security of the households and how households adopt long and short term coping strategies in their endeavor to be food secure. Data analysis was to determine to what extent the variables can influence and affect food security in Kimbibi*t Wereda*. The data is represented in the form of tables, graph and percentages.

4.2 Description of Respondents Demographic and Socio-Economic Characteristics

Larger household size was a common characteristic in the study area. As indicated on Table 4.1, the number of family members in each sample household various from 1 to 11. Majority of households, (157, i.e. 67.1%) have got 5 to 11 family members. Table 4.1 shows that on the average every sample household has 5.39 family members, which means there are 539 family members at every 100 sample households. Hence, a household contains 5 or 6 members on the average. Out of the total 1262 people, 649 (51.4%) are males while 613(49.6%) of the people are female. These numbers shows that the number of male and female population is nearly equal.

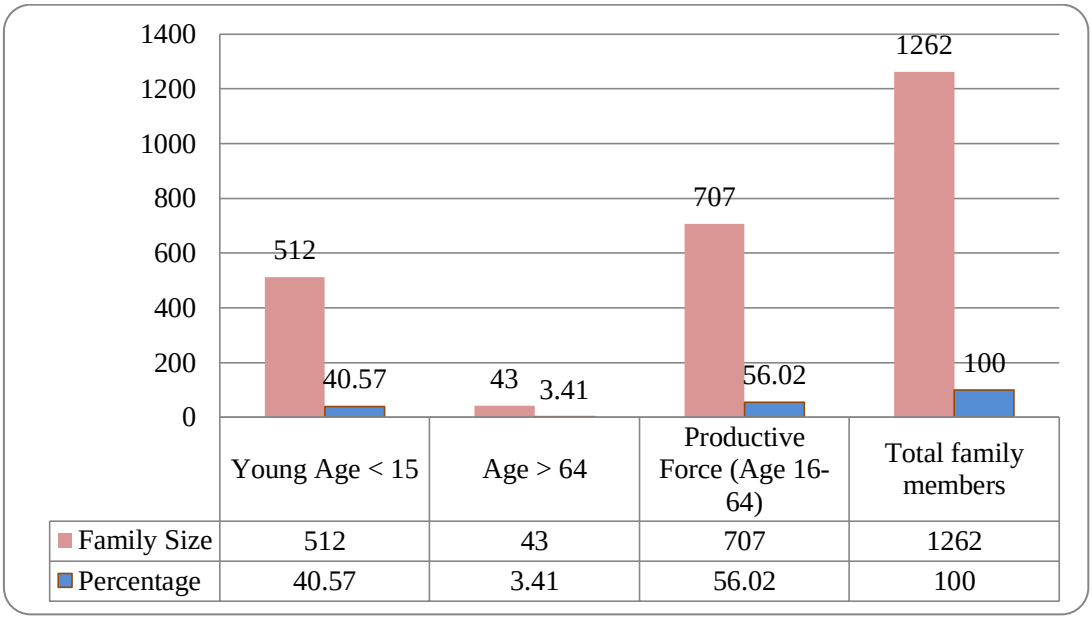
Table 4.1: Household family size

No of HH Members	Males		Females		Total family Size	
	Number of Males	Percent	Number of Females	Percent	Total Number of family size	Percent
0	0	0	3	1.3	0	0
1	33	14.1	40	17.1	3	1.3
2	77	32.9	80	34.2	6	2.6
3	60	25.6	61	26.1	35	15.0
4	44	18.8	31	13.2	33	14.1
5	15	6.4	10	4.3	52	22.2
6	4	1.7	8	3.4	42	17.9
7	1	.4	0	0	33	14.1
8	0	0.0	1	.4	13	5.6
9	0	0	0	0	9	3.8
10	0	0	0	0	6	2.6
11	0	0	0	0	2	.9
Total Family Size	649	51.4	613	49.6	1262	100
Average	2.77		2.62		5.39	

Source: Field survey, 2018

Age has been found to determine how active and productive the head of a household would be. Older people have relatively richer experiences of the social and physical environments as well as greater experience of farming activities (Haile, 2005). That is, when household heads get higher age, they are expected to have stable economy in farming. Moreover, older household heads are expected to have better access to land than younger heads, because younger men either have to wait for land redistribution, or have to share land with their families. As shown on Figure 4.1 below, the sampled 234 household heads have 1262 family members in total of which 707 (56.02%) are productive work force, while 555 (43.98%) are youngsters below age 15 and old age group above 64 years old. The number of young population with productive age group is higher than the rest age group. However, this didn't have positive impact on the agricultural

productivity and hence the sampled *kebeles* are prone to food insecurity. The discussion with the Focus Group and KII shed light on reasons for this deviation. These includes low or limited access to agricultural inputs like fertilizer, selected seeds, insecticides, water, modern machineries, and harsh weather. The cost of fertilizer and insecticides is very prohibitive for farmers to afford. On the other hand, the crop farming is solely dependent on seasonal rain and no irrigation system as sources of water. Besides, use of selected seeds that can survive harsh weather or frost and also provide more yields is not common.

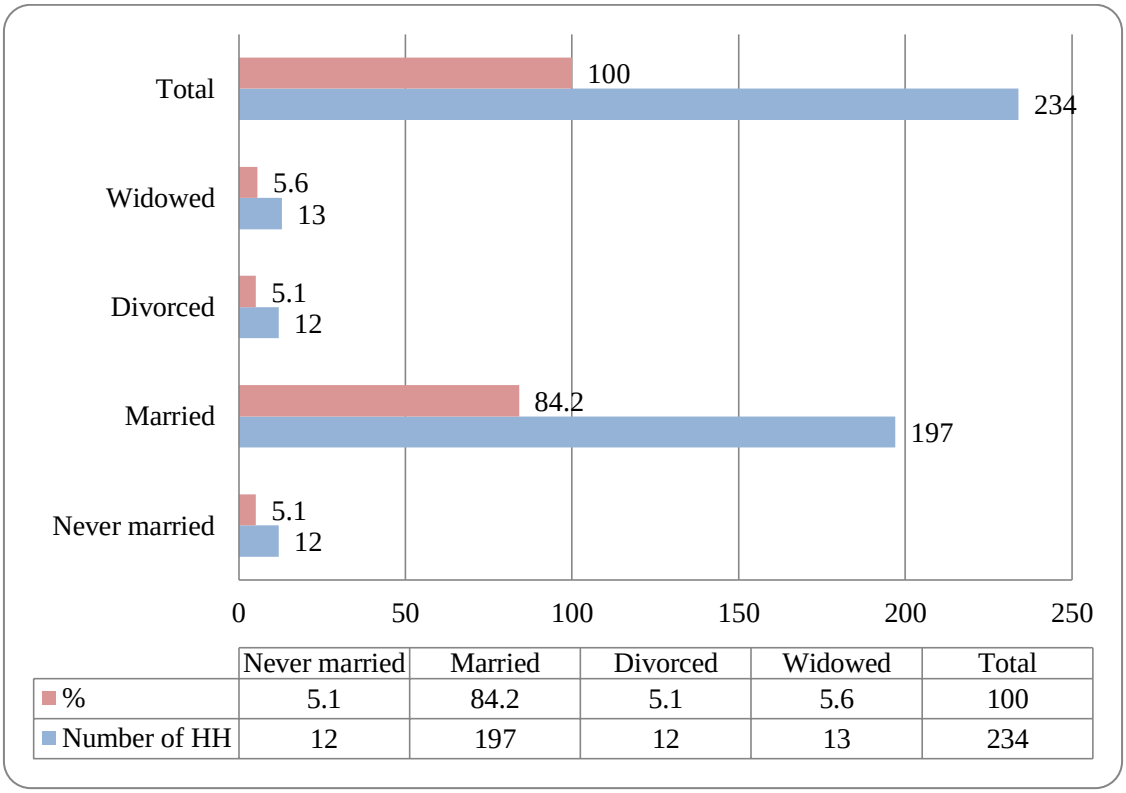


	Young Age < 15	Age > 64	Productive Force (Age 16-64)	Total family members
Family Size	512	43	707	1262
Percentage	40.57	3.41	56.02	100

Figure 4.1: Age of household family members (Source: Field survey, 2018)

Marital status can be explained in terms of the level of family labor supply for agricultural production and possibility for improving food security status. As indicated on figure 4.2, 84.2% of the household heads are married while only 15.8% of the household heads are either divorced or widowed or never married for various reasons.

Although prior studies claim that marital status has strong implication on food security by supplying more family labor (Amaza, 2009), this study found the prevalence of food insecurity despite the fact that 84.2% of the households heads stay in marriage.



	Never married	Married	Divorced	Widowed	Total
%	5.1	84.2	5.1	5.6	100
Number of HH	12	197	12	13	234

Figure 4.2: Marital status of household heads (Source: Field survey, 2018)

When a household is headed by a female, they play an important role in providing the households with basic needs including food, shelter and clothing (Kuwornu, Suleyman, & Amegashie, 2012). Figure 4.3 below shows that 179 (76.5%) house holds out of 234 (100%) samples were males while 55 (23.5%) are females. These families are not able to cultivate their available land to the level they would ensure food security to their family. The fact that the numbers of female household heads are very much lower than the males can significantly affect the food security of the area. Females are known for their care to the family and putting whatever agricultural products to the family nutritional consumptions.

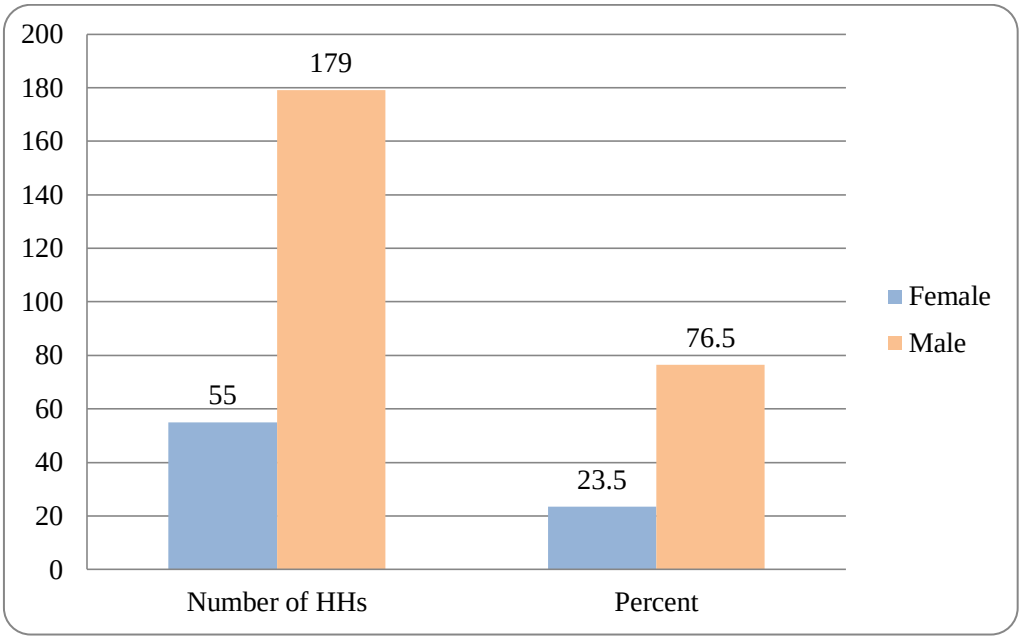
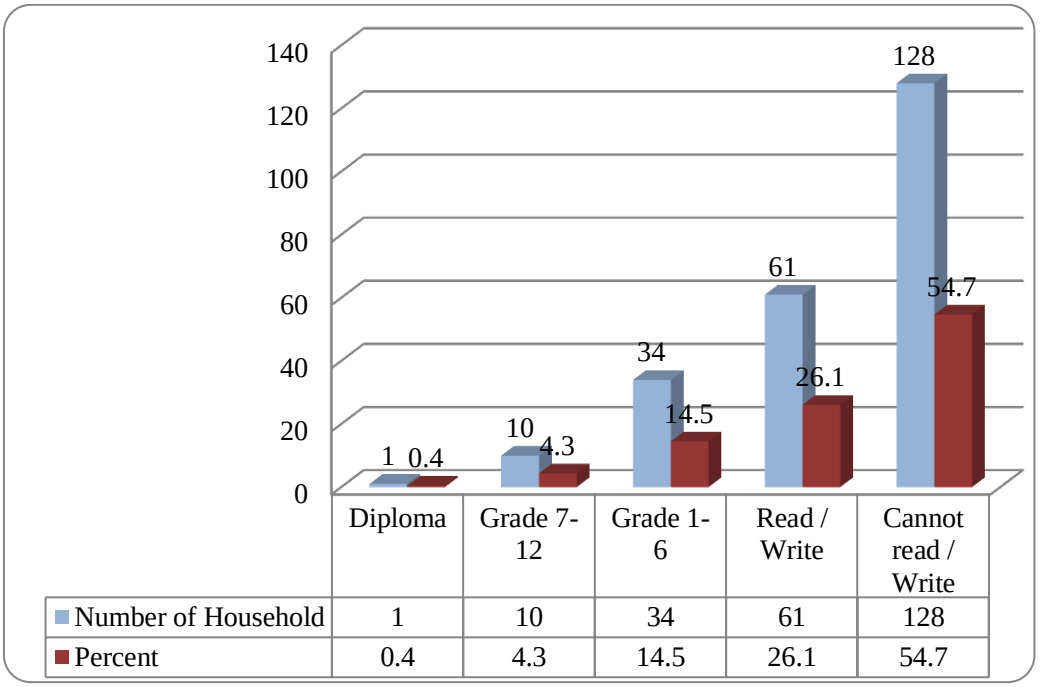


Figure 4.3: Gender of household heads (Source: Field survey, 2018)

Education is widely believed to be a key determinant of food security. Education level of the household head could be very important in making decision related to production of agricultural products. (Urassa, 2010) argues that households with more education stand a better chance of accessing credit that enables them afford more inputs for their agriculture. Farmers with more education have the possibility of obtaining higher yields and substantively improve household food security. Education is very important in making decisions related to production and use of crop produce at the household level. Figure 4.4 indicates that 128 (54.7%) of the sampled households do not even read and write while only 106 (45.3%) have some level of education ranging from elementary to high school levels. This high illiteracy rate in the area contributes for the households' food insecurity.



	Diploma	Grade 7-12	Grade 1-6	Read / Write	Cannot read / Write
Number of Household	1	10	34	61	128
Percent	0.4	4.3	14.5	26.1	54.7

Figure 4.4: Education level of the household heads (Source: Field survey, 2018)

4.3 Food Security Status of the Household

The following table presents the indicators regarding household's food insecurity (access) conditions. These indicators provide information about the behavior (action taken) by the households regarding each of the nine occurrence questions. Each scale was computed to the percentage households responded "Yes" to specific occurrence question to the total number of households responded to the question.

Table 4.2: Households Food Insecurity Access Scale (HFIAS) Measurement Tool

Occurrence Questions	Households	Rarely	Sometimes	Often
1. In the past four weeks, did you worry that your household would not have enough food?	No.	33	59	127
	%	14.1	25.2	54.3
2. In the past four weeks, were you or any household member not able to eat the kinds of foods you preferred because of a lack of resources?	No.	56	80	86
	%	23.9	34.2	36. 8
3. In the past four weeks, did you or any household member have to eat a limited variety of foods due to a lack of resources?	No.	46	73	102
	%	19.7	31.2	43.6
4. In the past four weeks, did you or any household member have to eat some foods that you really did not want to eat because of a lack of resources to obtain other types of food?	No.	19	42	77
	%	8.1	17.9	32.9
5. In the past four weeks, did you or any household member have to eat a smaller meal than you felt you needed because there was not enough food?	No.	20	53	89
	%	8.5	22.6	38
6. In the past four weeks, did you or any household member have to eat fewer meals in a day because there was not enough food?	No.	19	65	110
	%	8.1	27.8	47
7. In the past four weeks, was there ever no food to eat of any kind in your household because of lack of resources to get food?	No.	2	51	27
	%	0.9	21.8	11.5
8. In the past four weeks, did you or any household member go to sleep at night hungry because there was not enough food?	No.	53	38	0
	%	22.6	16.2	0

9. In the past four weeks, did you or any household member go a whole day and night without eating anything because there was not enough food?	No.	35	25	1
	%	15	10.7	0.4

Source: Field survey, 2018

Table 4.2, presents indicators regarding household's food insecurity (access) conditions as per the "Households Food Insecurity Access Scale (HFIAS) which was developed by (Swindale, 2006). The indicators provide information about the action and perception of households regarding each of the nine occurrence questions. Each scale was computed to the percentage households responded "Yes" to specific occurrence question to the total number of households responded to the question.

As indicated on Table 4.2, households were asked if they had worried about food in the past four weeks, which was responded by 219 of survey participants. The frequency of occurrence of this condition, however, varies from household to household. The occurrence was rare to 33 (14.1%) of the households, while 59 (25.2%) and 127 (54.3%) experienced this condition as frequent as sometimes and often, respectively.

Households were not able to eat kinds of food they preferred because of resource shortages was responded by 222 of the households. The frequency of occurrence of this condition, however, varies from household to household. The occurrence was rare to 56 (23.9%) of the households, while 80 (34.2%) and 86 (36.8%) households experienced this condition as frequent as sometimes and often, respectively.

Participants were asked if they had to eat a limited variety of foods due to a lack of resources. This was responded by 221 of the households. The frequency of occurrence of this condition, however, varies from household to household. The occurrence was rare to 46 (19.7%) of the households, while 73 (31.2%) and 102 (43.6%) households experienced this condition as frequent as sometimes and often, respectively.

Participants were asked if they had to eat some foods that they did not want to eat because of a lack of resources to obtain other types of food. The frequency of occurrence of this condition,

however, varies from household to household. The occurrence was rare to 19 (8.1%) of the households, while 42(17.9%) and 77(32.9%) households experienced this condition as frequent as sometimes and often, respectively.

Participants were asked if they had to eat a smaller meal than they felt they needed because there was not enough food. The frequency of occurrence of this condition, however, varies from household to household. The occurrence was rare to 20 (8.5%) of the households, while 53(22.6%) and 89(38%) households experienced this condition as frequent as sometimes and often, respectively.

Households were asked if they had to eat to eat fewer meals in a day because there was not enough food. The frequency of occurrence of this condition, however, varies from household to household. The occurrence was rare to 19 (8.1%) of the households, while 65 (27.8%) and 110 (47%) households experienced this condition as frequent as sometimes and often, respectively.

For conditions stated in questions 7, 8 and 9 the majority of the households' respective scales were categorized on the following: sometimes 21.8%, rarely 22.6% and 15%. It is obvious that the number of households experiencing these three conditions is relatively fewer than the number of households experiencing the other occurrences.

4.3.1 Household Food Insecurity Access-related Domains

The data presented in the table above also used to generate domain related information on the prevalence of households experiencing one or more situation driven conditions in each of the three domains. The first domain, anxiety and uncertainty, consists and based on only the first occurrence question. The second domain, i.e insufficient quality, is comprised of occurrence questions #2, #3 and #4. So, the proportion of households experiencing any of these three questions indicates the scale in the second domain. The third domain scale of those experienced insufficient food intake and its physical consequences, was also computed for the percentage of households experiencing any of the questions from #5 to #9.

The figure 4.5 below presents the prevalence of households in each domain. It is found that 96.5% of the households were under insufficient food quality condition; 93.4% showed that anxiety and uncertainty respectively, while 88.1% of the households experienced insufficient food consumption and subject to the physical consequences as a result.

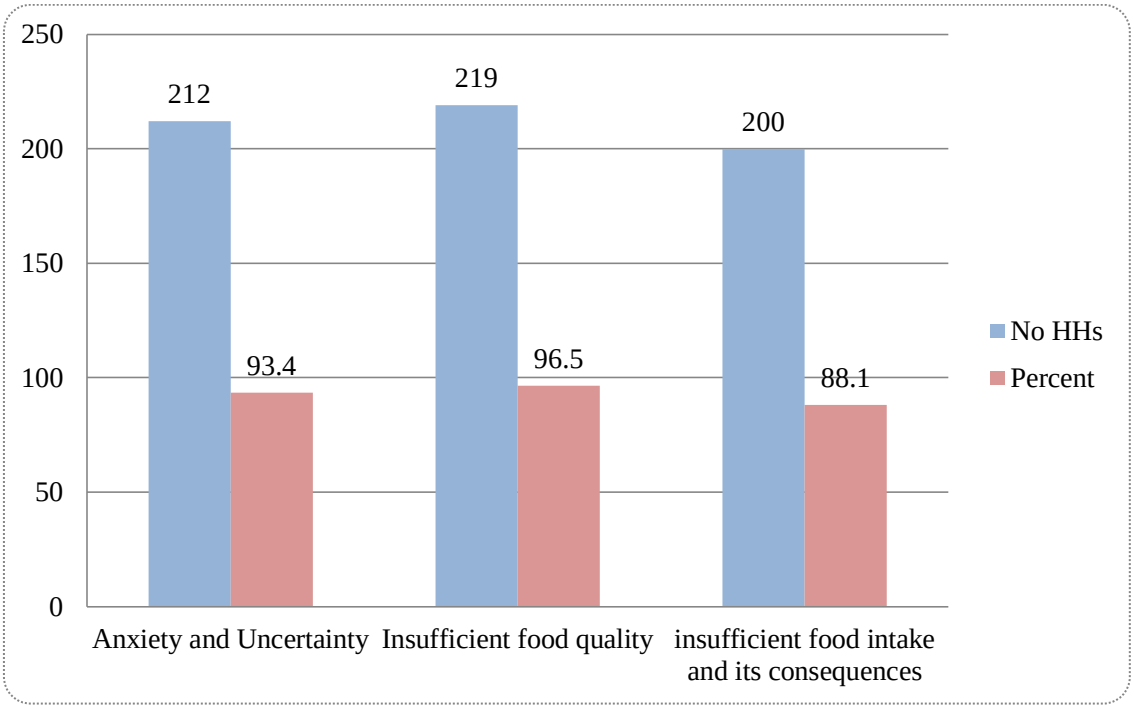


Figure 4.5: Household Food Insecurity Access-related Domains (Source: Field survey, 2018)

Applying the HFIAS categorization standard developed by Coates, Jennifer, Anne Swindale and Paula Bilinsky (Coates, 2007), and also supported by the survey respondents, figure 4.6 below shows the majority of the households (56.8%) are under severe food insecurity level. In addition; moderately food insecure households are 19.7%, and the mild food insecure households are 18.4%.

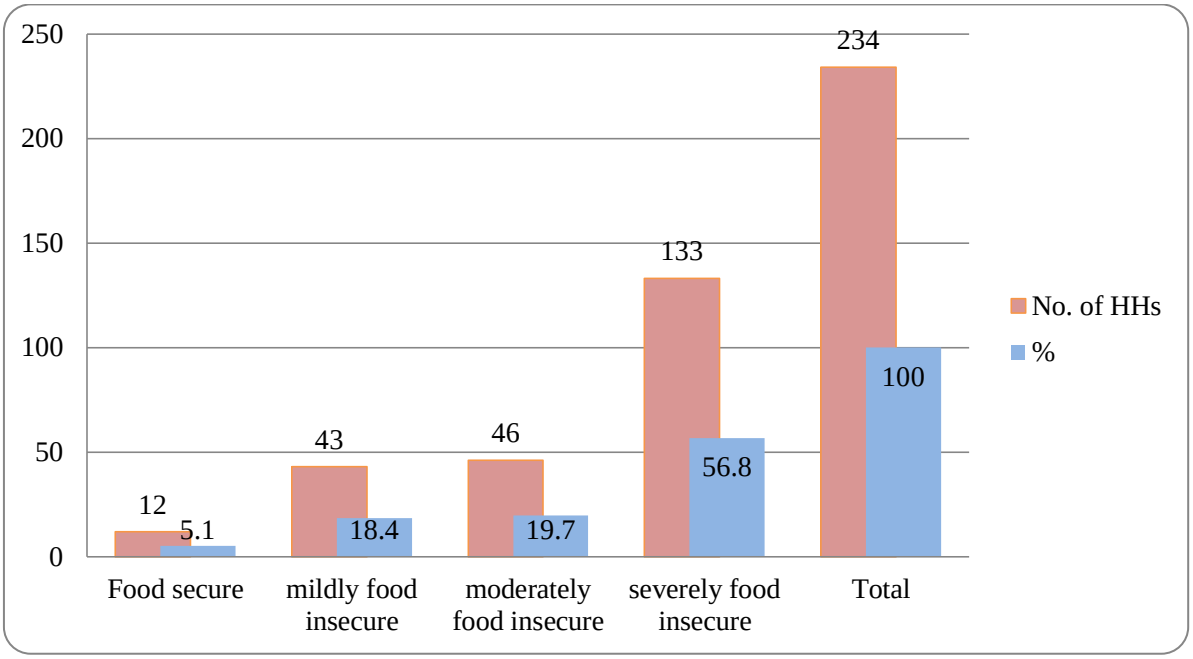


Figure 4.6: Household Food Insecurity Access Prevalence (Source: Field survey, 2018)

4.4. Causes of Food Insecurity

4.4.1 Environmental Factors

In order to understand the impact of rain shortage in the area, respondents were asked if there were crop failure during the past five years due to rain shortage. As summarized on figure 4.7 below, out of the 234 household sampled, 221 responded to this question. Accordingly, crop failure due to shortage of rain was experienced during the years 2013, 2015, 2016, and 2017 with 71 (32.1%), 98 (44.3%), 125 (56.6%), and 107 (48.4%) households affected respectively. Shortage of rain creates drought, decline water availability and causes crop failure. Therefore, shortage of rain is the central problem of the area since subsistent farmers livelihood is based on rain-fed agriculture. During FGD on the factors leading to food insecurity in the area, unreliable rainfall as a result of weather changes was identified as among the most important of low agricultural production and crop failure.

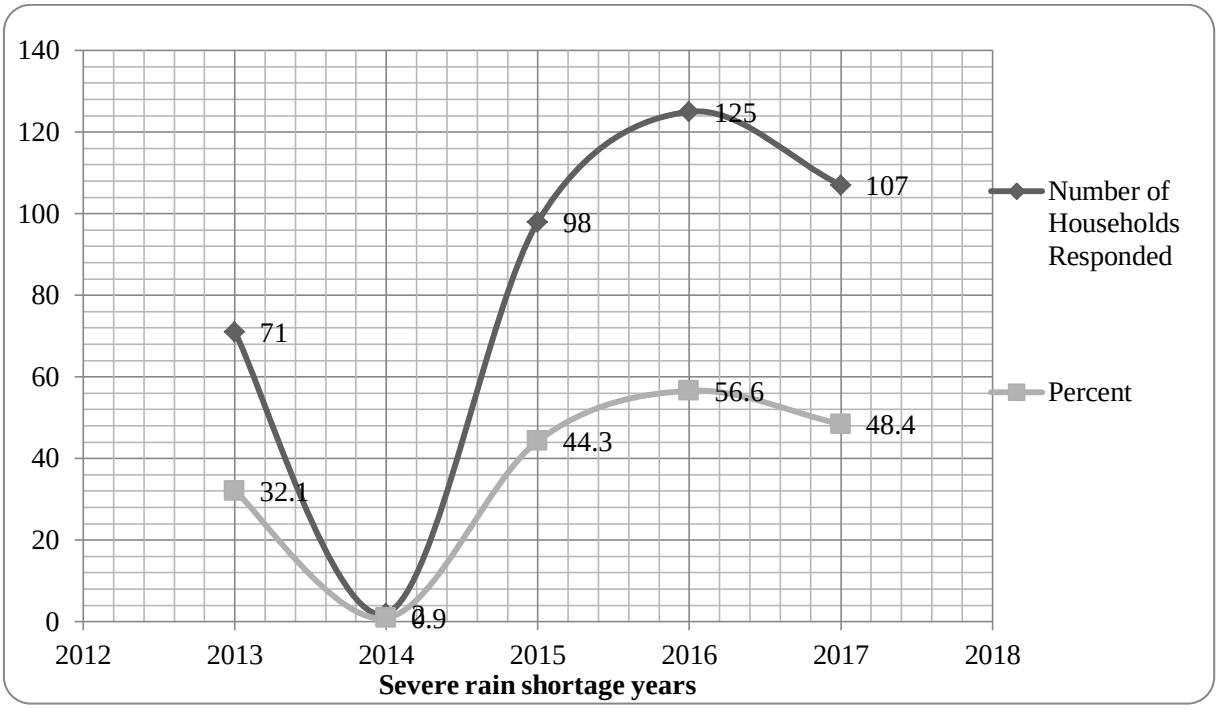
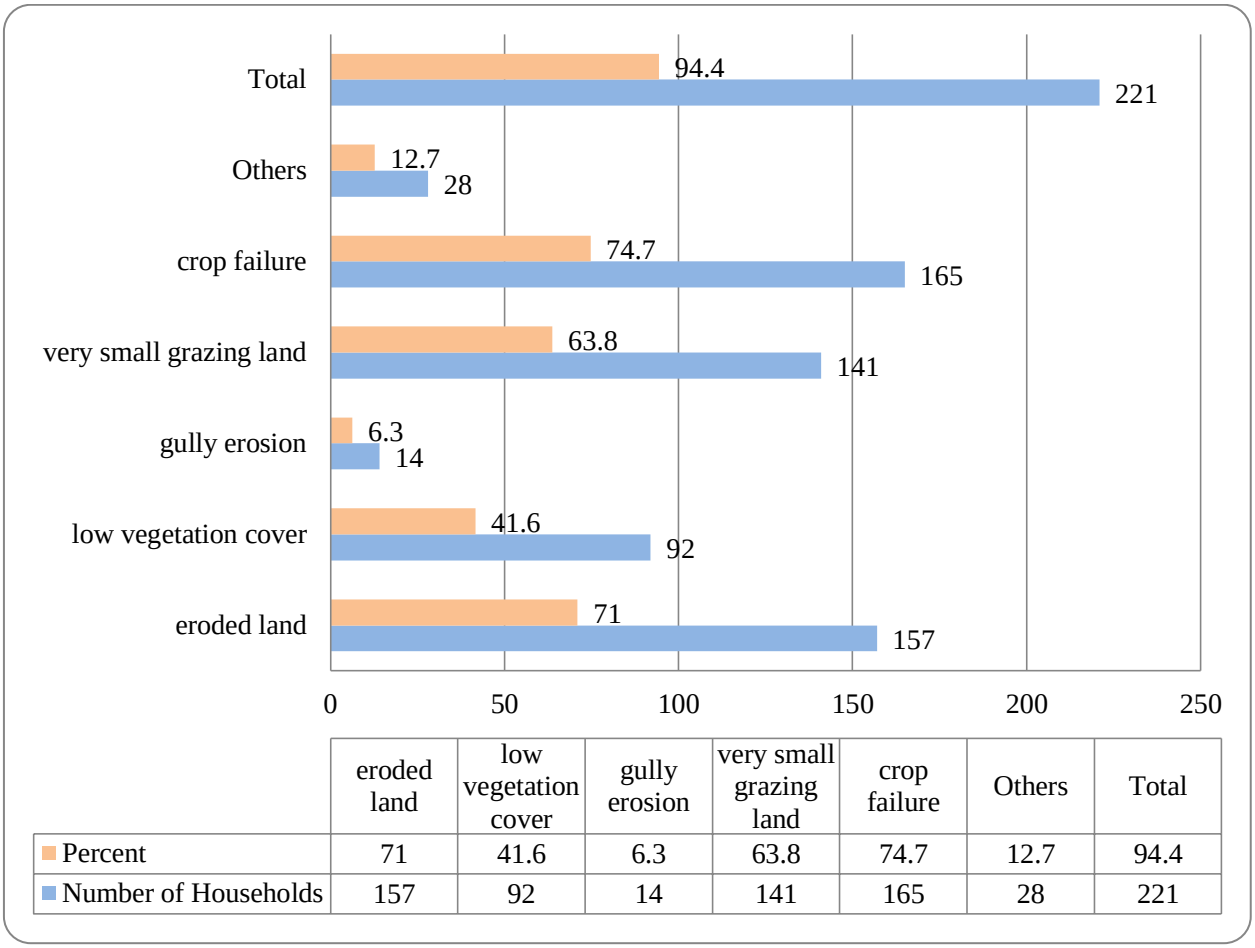


Figure 4.7: Households experience severe rain shortage (Source: Field survey, 2018)

Another observed problem in the area is land degradation. Ethiopians face the rapid degradation of land resources as well as rapid deforestation, mostly due to population increases but also as the result of inadequate farming practices. (Petr, 2010). An assessment of the environmental condition of the area helps to understand the prominence of drought condition and the extent of food insecurity. As indicated on figure 4.8, out of the 221 respondents, 157 (71%) indicated that the existing eroded land confirms that the environment is degrading. The remaining 92 (41.6%), 141 (63.8%), and 165 (74.7%) believes that the prevailing low vegetation cover, very small land for grazing and frequent crop failure respectively are the prominent indicators for environmental degradation in Kimbibit *Wereda*. As shown on the above graph, it is evident that land degradation is another critical environmental problem in the area which created food insecurity. Unless substantial plans are put in place by the government to combat the effects of environmental problems, the proportion of chronically food insecure people will be increased in the future.



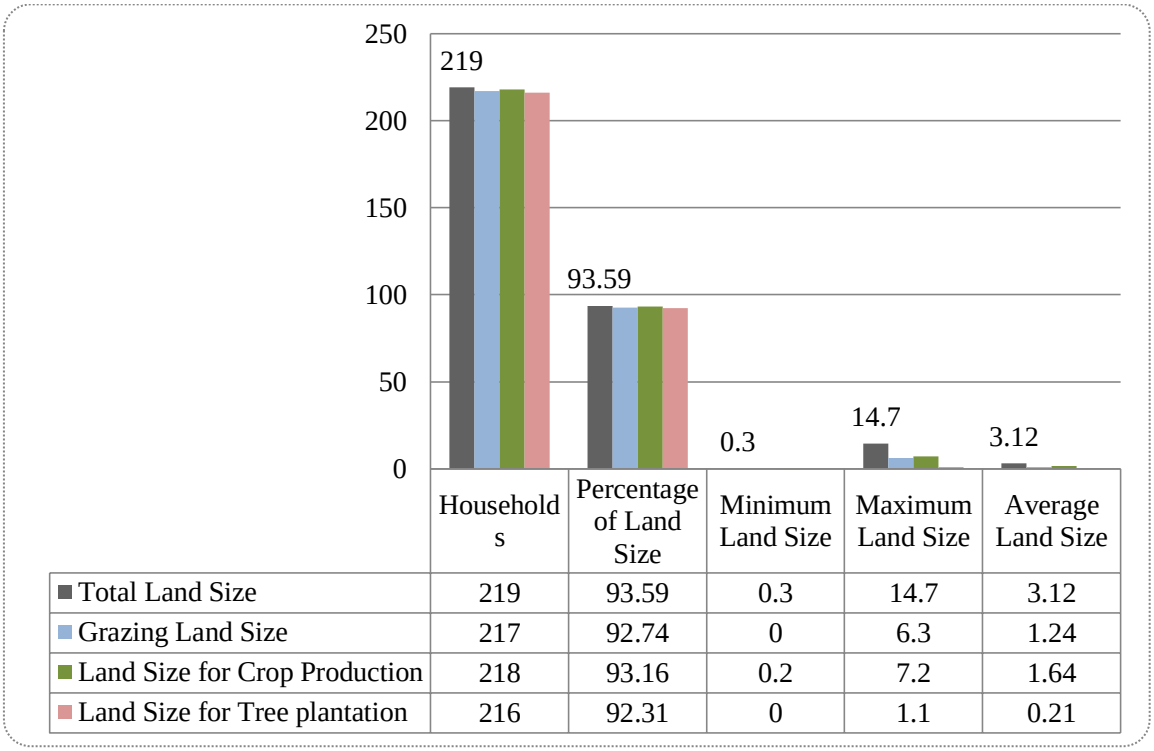
	eroded land	low vegetation cover	gully erosion	very small grazing land	crop failure	Others	Total
Percent	71	41.6	6.3	63.8	74.7	12.7	94.4
Number of Households	157	92	14	141	165	28	221

Figure 4.8: Environmental Degradation Signs in the Study Area (Source: Field survey, 2018)

4.4.2. Economic Factors

As indicated in the literature, land is a major resource of agriculture production in Ethiopia. Out of the 234 (100%) sample size, 219 (93.59%) household heads have direct access to land with an average land size of 3.12 hectares for each. Whereas 218 (93.16%) of the sample households have direct access to farm land available for crop production with an average size of 1.64 hectares for each. The total land size per household ranges from the smallest 0.30 ha of land to at most 14.70 ha. Animal raring is another livelihood income generating activity in which the farmers in *Kimbibit Wereda* are engaged in. Out of 219 households who claim that they have direct access to land, 217 (92.74%) of the samples have grazing land with an average size of 1.24 hectares for each. The reservation for grazing land could amount to the maximum 6.30 ha; which is obviously above the land size of most families for the purpose of crop production. The result shows that majority of the household farmers in the area have legally entitled for the land they

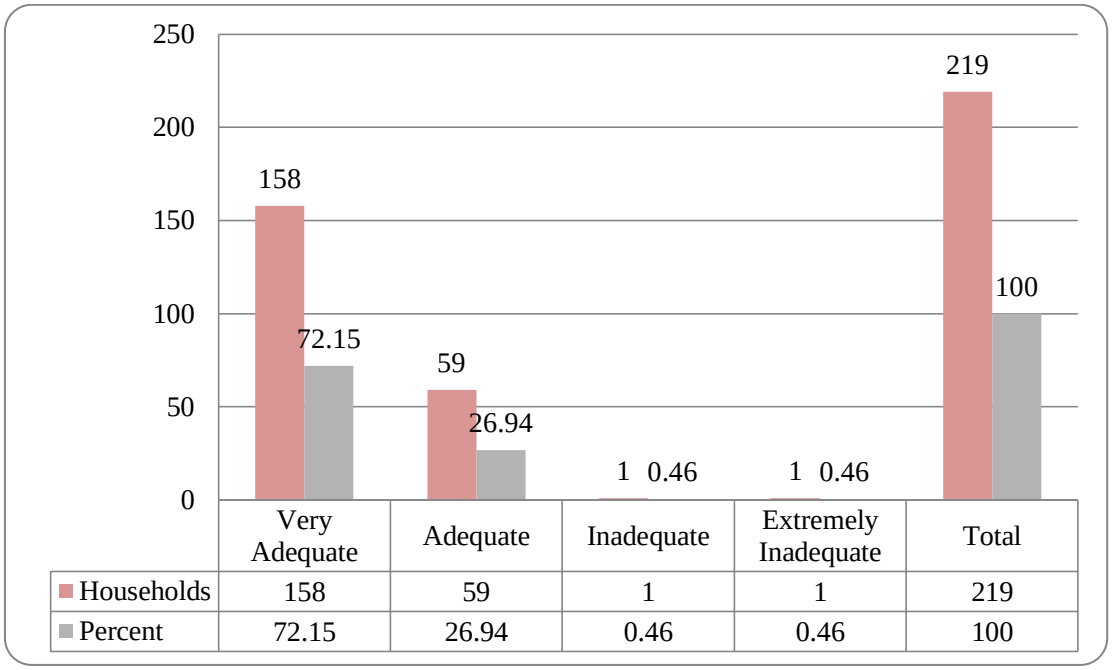
hold. This has positive sides in increasing households' level of confidence to develop their land in the future and boost up food security. Participants of the FGD also confirmed this fact that the use right (entitlement) on their land is a legal encouragement for them to continue protecting the fertility of their land by various methods including animal dung, fallowing, and building barriers against soil erosion.



	Households	Percentage of Land Size	Minimum Land Size	Maximum Land Size	Average Land Size
Total Land Size	219	93.59	0.3	14.7	3.12
Grazing Land Size	217	92.74	0	6.3	1.24
Land Size for Crop Production	218	93.16	0.2	7.2	1.64
Land Size for Tree plantation	216	92.31	0	1.1	0.21

Figure 4.9: Households Ownership to Farmland (Source: Field survey, 2018)

From the table it can be shown that, relatively higher portion of the land, i.e. 1.64 ha, is used for crop production; while only 1.24 ha of land was reserved for grazing land. A much smaller portion of land, i.e. about 0.21 ha, is used for tree plantation. In an effort to learn how farmers acquire land for their farming activity, household heads were asked the source of their farmland. As summarized on figure 4.10 below, of the 219 land owners, 80 (34.19%) of households obtained their land through inheritance. The remaining 72 (30.77%), 59 (25.21), and 8 (3.42%) have access to their land through allotment, gift, and rent/lease respectively. The result shows that the land already redistributed through inheritance and no new land is available in the area.



	Very Adequate	Adequate	Inadequate	Extremely Inadequate	Total
Households	158	59	1	1	219
Percent	72.15	26.94	0.46	0.46	100

Figure 4.10: Size of Farm Land (Source: Field survey, 2018)

Among the 219 households who responded to the question whether or not the land that they have access to is adequate for their farming, 158 (72.15%) believes their land is very adequate and 59 (26.94%) thinks it is just adequate. Whereas, only 2 (0.92%) of the respondents claim that the farm land they have access to is not enough. According to Najafi (2003), food production can be increased extensively through expansion of areas under cultivation. Other productivity factors remains constant, under subsistence agriculture, holding large size means more cultivation and more possibility of production which in turn increase farm income and improve food security. However, on the basis of HFIAS it is evident that 56.8% of the population is severely food insecure. Which means farm size alone doesn't necessarily determine level of food productivity.

As shown on figure 4.11 below, some of the households do not directly work on the land accessible to them; instead they rent it out for other farmers. Out of the 219 households participated in the survey, 53 (24.2%) rent their farm land for different reasons. Among those who give out their land for rent, 28 (52.83%) of them do so because they are busy with off-farm activities, and 19 (35.85%) do not have oxen to plough their farm land. The reaming 4 (7.55%), and 2(3.77%) are renting their land for not being able to manage by themselves because of old

age and inability to buy farm inputs respectively. While this is a means for these households to circumvent their labor challenges, it is also an opportunity for the active households to offset some deficit in their need for farm land.

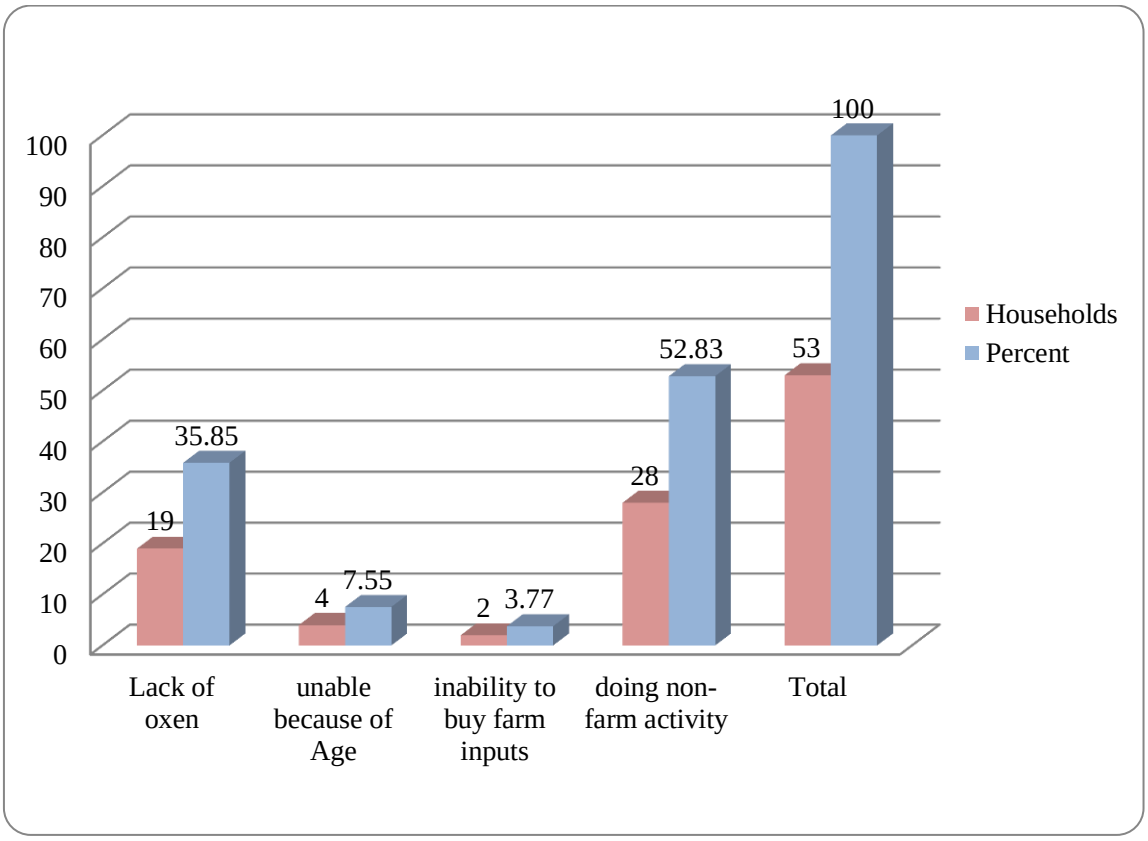
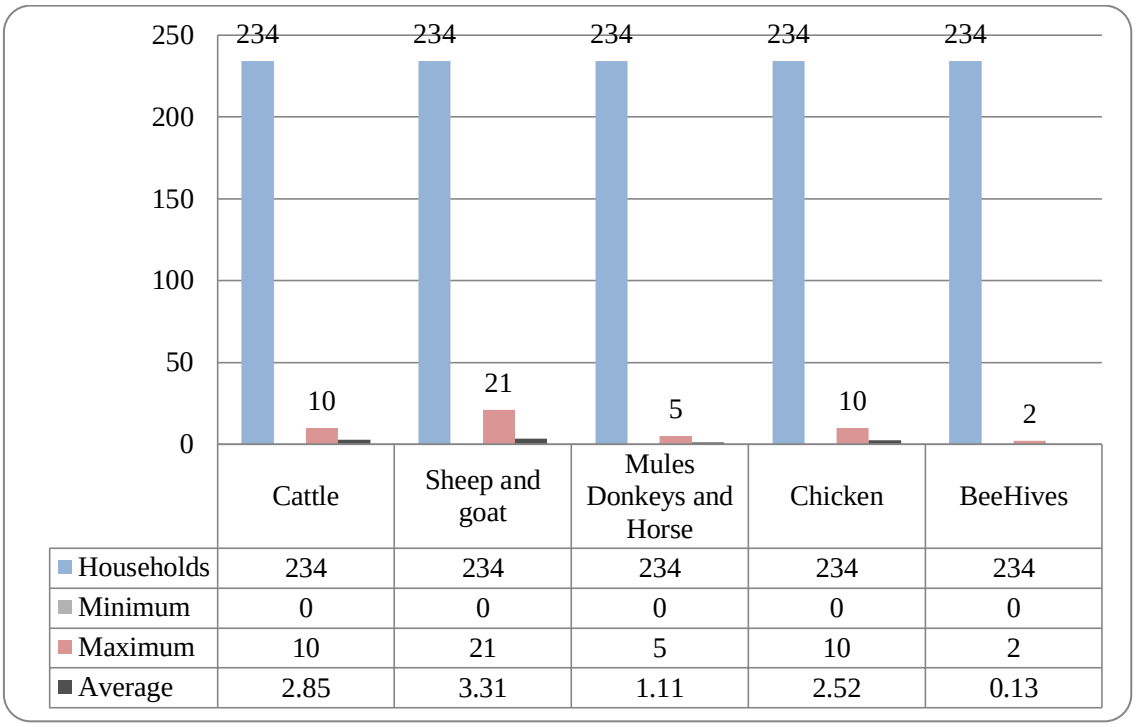


Figure 4.11: Reason for Renting Farm Land (Source: Field survey, 2018)

Apart from crop production, livestock rearing constitutes part of income generating activity in which households engaged in as sources of food and cash income in the study area. As indicated on figure 4.12 below, Sheep and Goats are most popular animals in the area with an average number of 3.31 sheep and goats owned by each household. The average cattle population possessed by each household is 2.85 animals per head. This number is not that big compared to the advantage of having animals to make use of them during the period of food shortages.



	Cattle	Sheep and goat	Mules Donkeys and Horse	Chicken	BeeHives
Households	234	234	234	234	234
Minimum	0	0	0	0	0
Maximum	10	21	5	10	2
Average	2.85	3.31	1.11	2.52	0.13

Figure 4.12: Household Livestock size (Source: Field survey, 2018)

4.4.2.1. Households Engagement in Off-Farm Activities

The more a household head engages in gainful employment, the higher the households' income and the greater the chances of the households being food secure. Participation in off-farm activities to increase food availability in the household was measured by whether or not a household was engaged in those activities. Household were asked if they are involved in income generating activities other than farming. Table 4.3 below shows that households are involved in different income generating activities to increase food availability including 10 (4.3%) households in trading, 47 (20.1%) in unskilled labor, 10 (4.3%) in skilled labor, and 48 (20.5%) households working for other farmers. This is an indication that in spite of majority of the households tries to diversify their incomes by working for others, they are still food insecure. This could mean that off-farm employment opportunities in the area are limited in income-generating potential. This is due to the type of off-farm activities available in the area which is very low paying including collecting and selling firewood and forage, and farm labor.

Table 4.3: Household Income Generating Activities

Income generating activity	Household's Engagement		Income from non-farm activity		
	N0.	%	Minimum	Maximum	Average
Trading activities	10	4.3	350	1700	1070.00
Unskilled wage employment (laborer in construction, guards)	47	20.1	50	2400	628.72
Skilled labor (handicraft, weaving, carpentry, flourmill operator)	10	4.3	300	3000	865.00
Professional employment (teacher, *kebele* worker)	1	0.4	3000	3000	3000.00
Renting properties (pack animals, house in urban areas)	0	0.0	-	-	-
Remittance from household members/relatives	9	3.8	100	600	305.56
Working for other farmers	48	20.5	50	1000	392.19
Food for work	10	4.3	200	1500	590.00
Other	2	0.9	700	800	750.00

Source: Field survey, 2018

4.4.2.2. Crop Production and Consumption Pattern

An attempt was made to find out the kinds and amount (in KG) of crops produced in the study area in the year 2017, and the consumption pattern and sales income if households put to sale some products. In general, as shown on figure 4.13, almost all produced is for consumption and very insignificant portion goes to the market. This is an indication that there is no surplus production in the area to ensure food security. Barely is the most common grain produced by 210 (89.74%) households averagely produced 242.90 Kgs. The other major crops produced include

Wheat, Wild Oats, and Lentils produced by 198, 84, and 169 households who averagely produce 216.18 Kgs, 156.13Kgs, and 153.38 Kgs respectively. It is also evident that the production is so low that almost all produced is consumed by the household. The only exceptions are Horse Bean, Lentils, Wheat, and to a certain extent Barley where 65, 23, 9 and 3 of the households put to sale on the average 62.28Kgs, 91.35 Kgs, 100 Kgs, and 83.33 Kgs respectively. The result shows that even the staple crops grown in the area like wild oats, barley and wheat produced by the households are not sufficient for the home consumption. This was also probed through the KII session where almost all agreed that whatever they produced even during good harvest seasons is very small compared to the farm land size they possess.

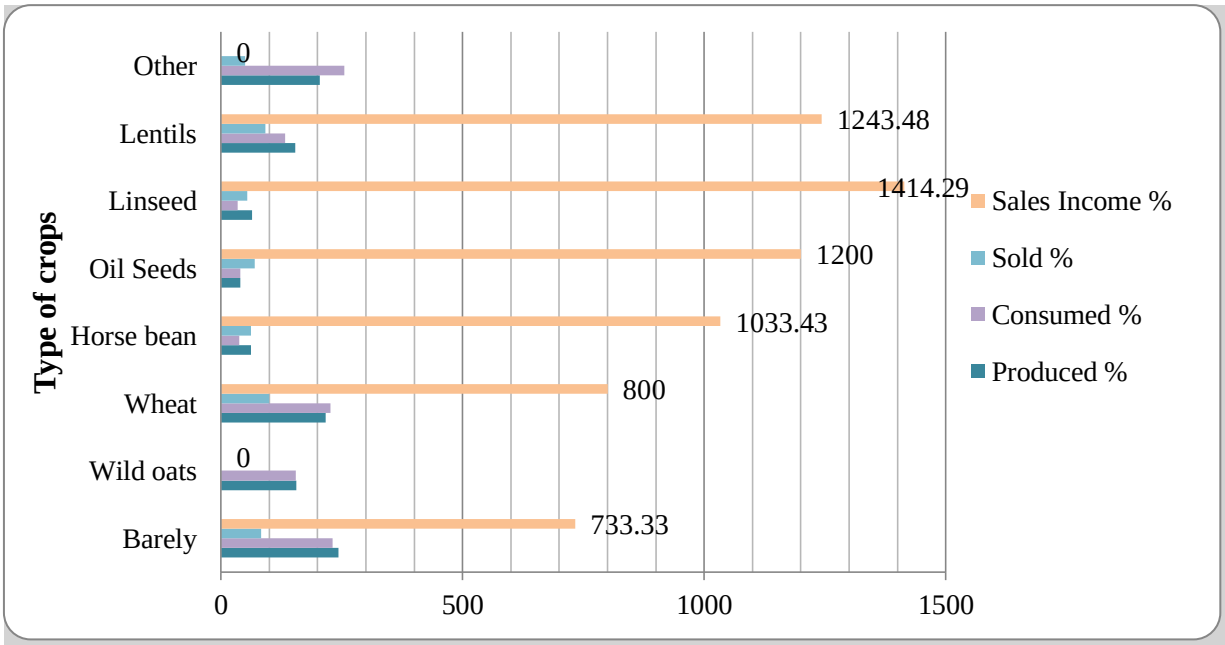


Figure 4.13: Crop Production and Consumption Pattern (Source: Field survey, 2018)

Fertility of the farm land is one key element to achieve high yield and quality of crops and consequently ensuring food security. Farmers use different techniques to maintain the fertility of their farm land and also increase crop production. As indicated on figure 4.14, among the 234 (100%) households, 225 (96.2%) of them use crop rotation to maintain fertility of their farm land. Uses of chemical fertilizer, animal dung, fallowing method are also popular in the area practiced by 215 (91.9%), 188 (80.3%), and 185 (79.1%) of households.

Protecting crops for better yield is also one key element in increasing production households' use in the area. Out of the 234 household sampled, 164 (70.1%), and 149 (63.7%) uses herbicide and insecticides to protect their crop from harm and increase productivity. The remaining 126 (53.8%), 52 (22.2%), and 46 (19.7%) have used improved seeds, intercropping, and modern farming tools as means of increasing productivity. (Devereux, 2000), found that a decline in soil fertility negatively affects food security. The study revealed that household respondent using modern technology and land management is lacking. Soil fertility is already very low due to intensive cultivation and limited application of yield. Farmers' have concerns about using fertilizers and its consequences during FGD. They commented that while using fertilizers increase the productivity of their land, the price of fertilizer is painful and also bring different types of insects that attack the crops and decrease the productivity. On the other hand, insecticides are not commonly available, if they are; the price is unaffordable to them.

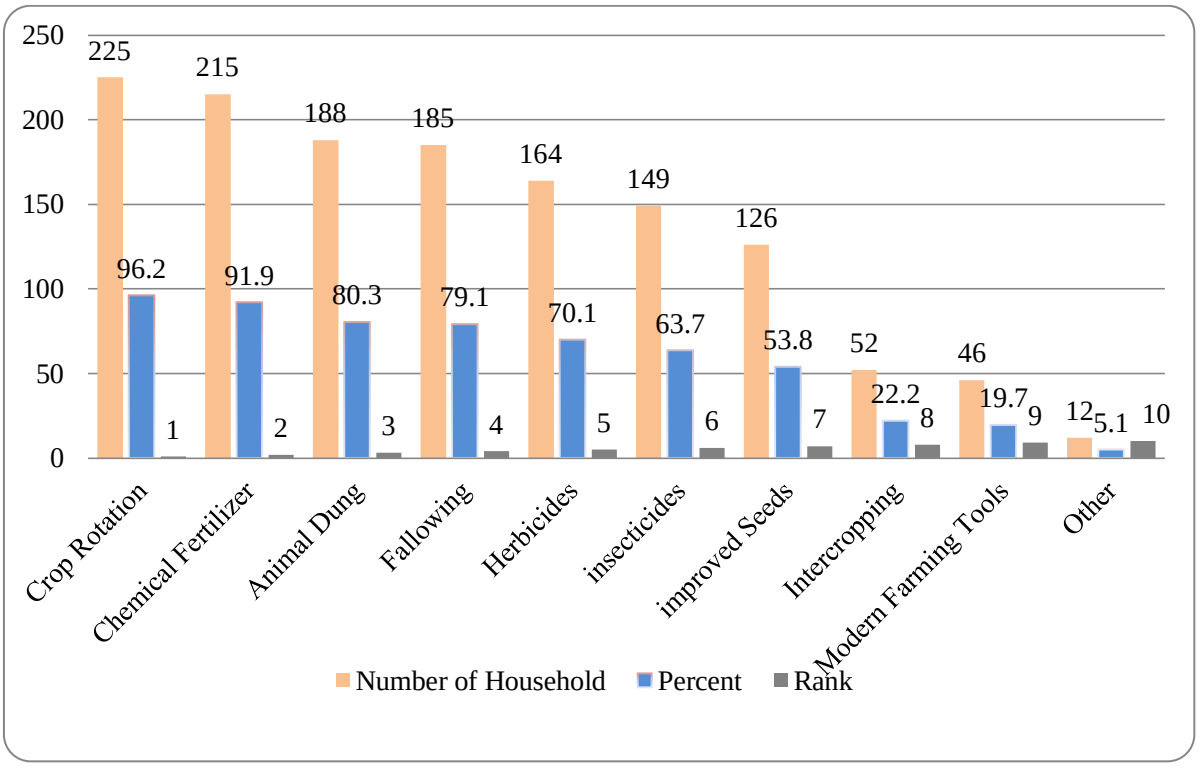
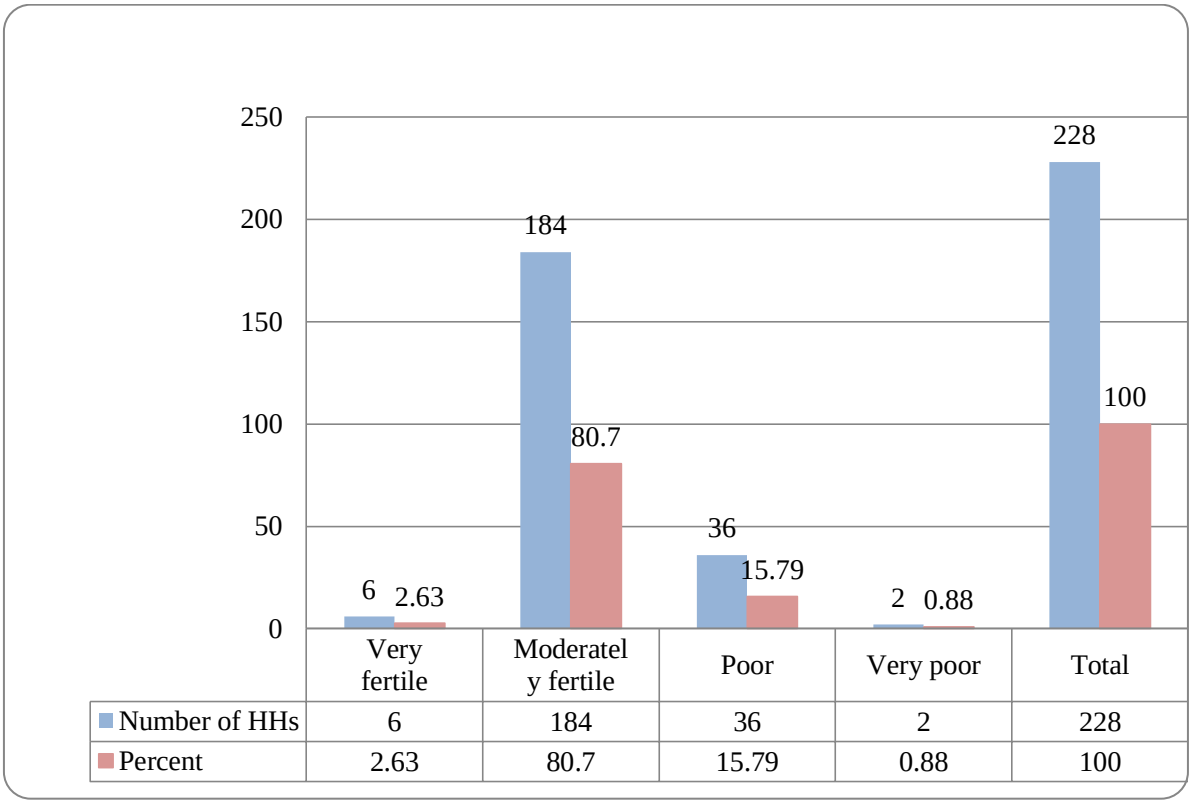


Figure 4.14: Maintaining Land Fertility and Increase Crop Production (Source: Field survey, 2018)

Households were also asked to rate the level of fertility of their farmland. As indicated on figure 4.15, of the 228 (100%) who responded to this question, only 6 (2.63%) thinks their farmland is very fertile while majority of the respondents 184 (80.70%) believes that their land is moderately fertile. The remaining 36 (15.79%), and 2 (0.88%) rate the fertility of their farmland as poor and very poor. The comments obtained from the Wereda Agriculture office expert during the KII discussion also supports this finding citing the households' low level of effort to enhance soil fertility and constant soil erosion as reason.



	Very fertile	Moderately fertile	Poor	Very poor	Total
Number of HHs	6	184	36	2	228
Percent	2.63	80.7	15.79	0.88	100

Figure 4.15: Fertility of Households Farmland (Source: Field survey, 2018)

4.5. Coping Strategies against Household Food Insecurity

Food insecure household have used different coping mechanisms at different times. The households coping strategy to food insecurity at Kimbibit *Wereda* was measured based on coping strategy index, developed by Daniel Maxwell and Richard Caldwell, 2008. Accordingly, as indicated on figure 4.16, 12, 227 (97%) of the respondents indicated that adults in families skip

meals to feed children, and 226 (96.6%) respondents eat less food than usual. The other major coping strategies indicated by the respondents include borrowing of food and cash 190 (81.2%), Sale of fire wood/ charcoal/grass 170 (72.6%), and buy food on credit basis 159 (67.9%).

The survey also confirmed other coping strategies used by the households like members seeking work in the vicinity, temporary migration, household members seeking work in the vicinity, temporary migration, eating wild food, withdraws children from schools, sale of local drinks, renting land, etc. In addition to the described coping strategies below 84.2% of the households received food aid as one of the coping strategy mechanisms that the government provided. The results from the table revealed that the most widely used strategies by farming households in the study area in the order of importance including decreasing meals, doing petty trading, selling of livestock and asset. Observation from FGDs shows that borrowing food from informal source in all households was common. The coping strategies had standard index and food production and supply are positively related and increase the engagement into coping strategy might lead to an increase of the supply of food.

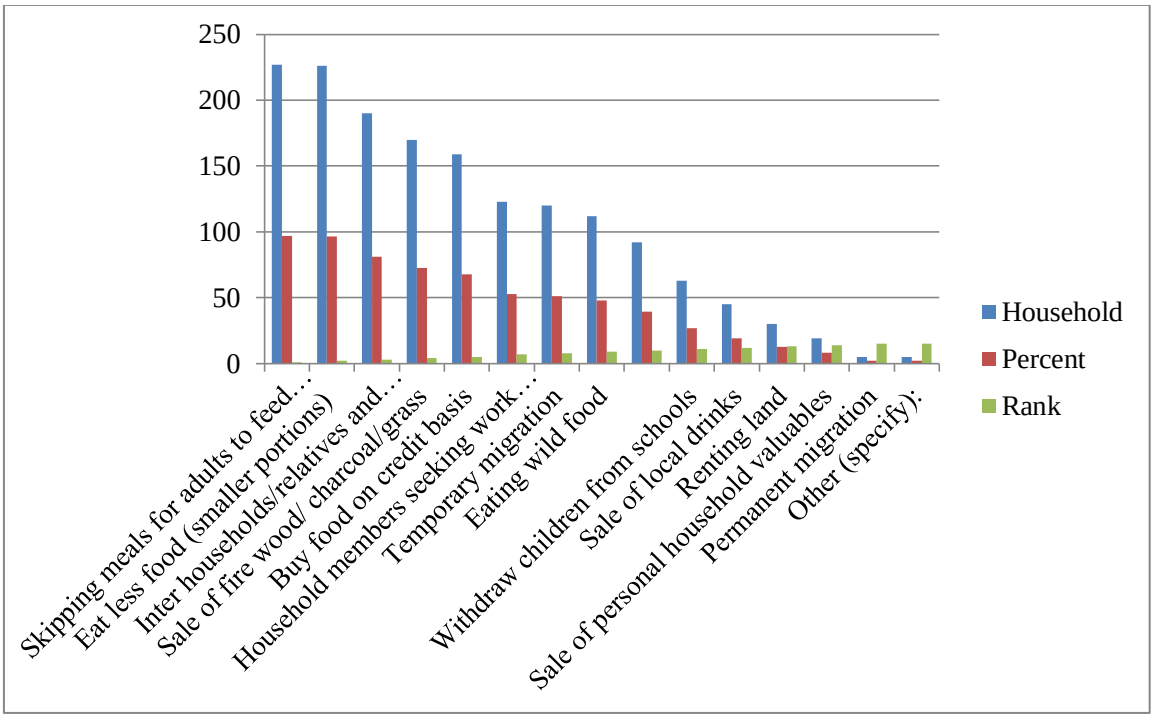
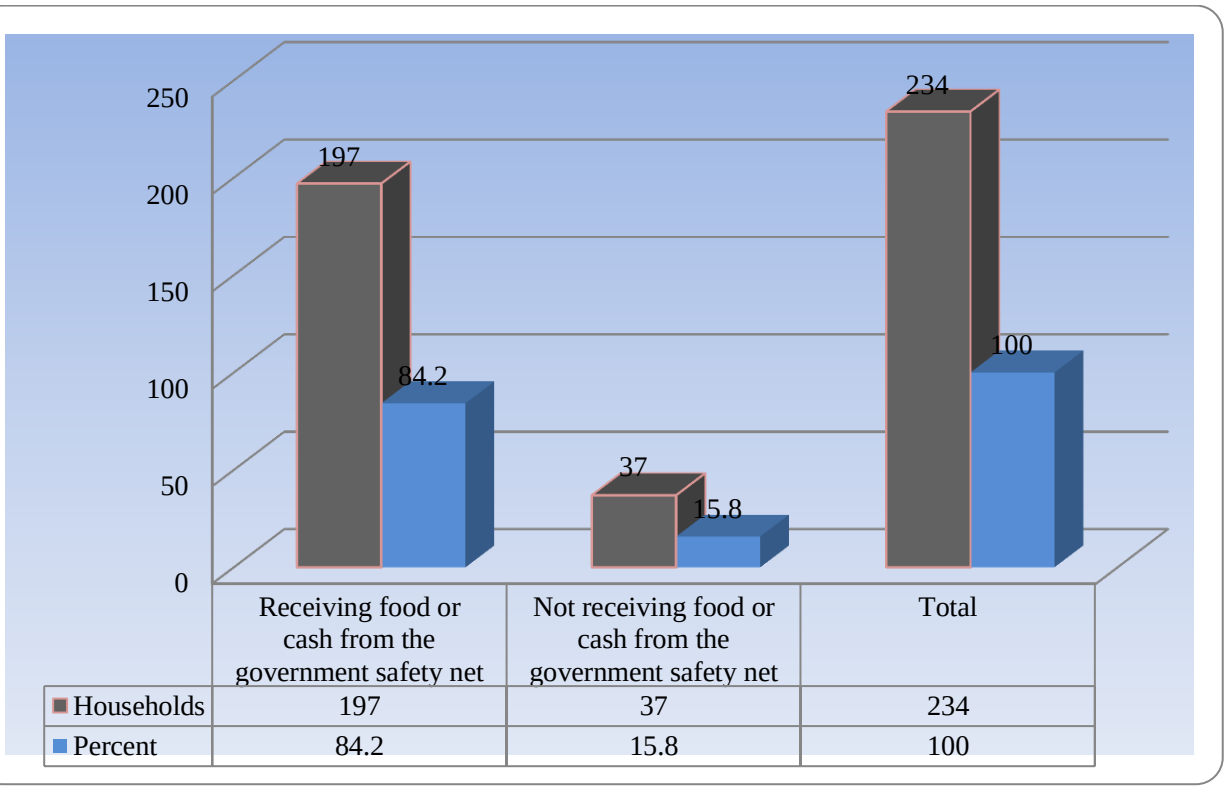


Figure 4.16: Coping Strategy Index (Source: Field survey, 2018)

4.5.1. Productive Safety Net Program (PSNP) as Coping Strategy

Respondents were asked if they are included in the PSNP and receiving any support from the Government. As indicated on figure 4.17, 197 (84.2%) of the respondents are part of the Governments' Productive Safety Net Program (PSNP) and are receiving assistance. Whereas, only 37 (15.8%) are not part of the PSNP and not receiving any aid. This confirms that the area is food insecure. The result confirmed that majority of the households are embraced by the PSNP which the programs are designed to help beneficiary households become self-sufficient. One of the KII explained that "due to availability of food aid for many years, farmers become reluctant to improve their lives.



	Receiving food or cash from the government safety net	Not receiving food or cash from the government safety net	Total
Households	197	37	234
Percent	84.2	15.8	100

Figure 4.17: Households inclusion in Governments' PSNP (Source: Field survey, 2018)

Chapter Five

5. Conclusion and Policy Implications

With the aim of addressing the research objectives of assessing the extent of food insecurity, factors affecting food insecurity, and coping strategies adopted, the proceeding conclusions and policy options have been forwarded.

5.1. Conclusion

This study was conducted in order to determine the causes of food insecurity and coping strategies of farm households in Kimbibit *Wereda* primarily using questionnaire survey method. The variables under study included how environment, economic, socio-cultural, institution and policy influence food security of the households. It is tried to specifically identify the major factors that affects food insecurity at household level, and the long and short term coping strategies adopted by farming households. The research confirmed the claim that Kimbibit *wereda* is struggling against food insecurity challenges with 84.2% of the sampled households included in the Governments' Productive Safety Net Program (PSNP). It also further revealed that almost all produce is for household consumption.

The research concluded that family size of the household, education attainment of the household head, practice and experience of fertilizer and technology usage, less preferred food, cost of food items, purchasing food on credit and reducing number of meals were related to households, food security or insecurity. Rain shortages and environmental degradations are causes of drought and a decline in water availability which consequently causes crop failure as subsistent farmers' livelihood in the area is based on rain-fed agriculture.

Some level of education for the household is necessary in making decisions related to crop farming and animal rearing. However, about 55 percent of the samples involved in this study do not even read and write. This obviously undermines the concerted effort to survive the existing

food shortages adopted by most households. The standard scale "households food insecurity access scale (HFIAS)" applied to measure the food security condition in Kimbibit wereda also suggests that the area is food insecure with the prevalence of 56.8%.

Literature claims that greater proportion of productive workforce ensures better status of food security by increasing productivity of the household. But in the study context it was found that food insecurity is not associated with the availability of larger proportion of productive workforce.

Although prior studies claim that marital status has strong implication on food security by supplying more family labor (Amaza et al., 2009), this study found the prevalence of food insecurity despite the fact that 84.2% of the household heads stay in marriage.

The most popular coping strategies were rely on less preferred foods, borrowing food from vicinity, purchasing food on credit, and selling charcoal/ *kubet* and petty trading and casual works for short and long term respectively. Though animal rearing is one supplementary activity that can help to survive during crop failure periods, households engagement in this activity is limited as per seen from the average number of animals owned by each household.

Available off-farm activities in the area are very limited and are low paying farm-related activities where 47% of the households are engaged in. However, its contribution to help households in the area to be food secure is minimal. This is due to low level or none existent of investments in the area which would bring further skill enhancement and improvement to the income level of households.

Finally, it can be concluded from the study that many factors significantly affected food production and supply of farming households in the study area. The most important factors were total annual income, the amount of crop produced, household size of plot owned.

Low income is the strongest indicator of food insecurity and emergency food assistance usage. So, addressing food supply alone is insufficient, rather it is essential to also advocate for policy

change. Raising public and political awareness of food security can help advocate for social assistance reform.

Land size is one of the determining factors in crop production, and 72% of the sampled households feel that their land size is adequate. Nonetheless, they are not able to produce enough ensuring their food security. This sounds a revelation that in some areas other factors like soil fertility, availability of water and the like is much more significant in increasing food production and makes the households food secure.

5.2 Policy Implications

A number of researches have been conducted in the area of food security and recommended several approaches in dealing with food insecurity at national and local levels. However, the situation remains still challenging. What is worrisome here is determining whether this is due to research gap or policy dilemma. With this particular research area, the following policy implications are suggested to consider for review:

1. In order to survive difficult times, farming households need to further diversify their livelihood strategies especially into off-farm income generating activities. Certain skill enhancement trainings that can help transform households into other value generation activities consistent with any government and other stakeholders' investment would eventually help households generate more resources and gradually address food insecurity issues. These calls for reshaping some policy instruments and empowering the existing agriculture extension workers to address more issues than what they are doing right now.

2. The Government PSNP is wonderful in saving life and sustaining households during difficult times. However, this study identified that there are households participating in the program for many years without showing any significant improvement. This surely creating dependency syndrome and requires a proper monitoring and follow up system to ensure positive impact. Although looking into the PSNP program detail is out of the scope of this study, review of the program elements could either help include assessment and follow up mechanisms or ensure proper implementation of it if it exist.

3. The use of modern agricultural technology and input like improved seeds, insecticides, and fertilizers is key for increasing productivity and thereof curving food insecurity. However, the households do not have enough means to afford those resources. Thus, crafting a system that would help facilitate households to access some funding opportunities on a performance basis would enhance their capacity and create healthy competition among themselves which eventually helps fight food insecurity.

4. Further research is required in order to make comprehensive conclusions on all the 20 *kebeles* of Kimbibit *Wereda* regarding food security status of farm households. It is also suggested that Government interventions in the form of PSNP or others should be studied to see if the interventions match the need on the ground.

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Annex 1

Interview Questionnaire

Causes and Coping Strategies of Food Insecurity among
Rural Households in Kimbibit Woreda, Oromia National Regional State

General information

This questionnaire is designed to collect data for academic research of Master's Degree in Public Administration and Development Management, entitled: Causes and Coping Strategies of Food Insecurity among Rural Households in Kimbibit Woreda, Ethiopia. The data generated through this questionnaire will be treated confidentially used for academic purposes only.

Name of household head (optional)				
Household Identification Number (optional)				
Interviewer's Name:				
Name of the Kebele :				
Date of Interview:				
Time of Interview:	Starting time: ___	Finishing time: ___		
Agro-ecology:	Dega	Woinadega	Kolla	
Sex of the respondent:	Female	Male		
Age of the respondent: (in complete year)				
Current marital status:	Never Married	Married	Divorced	Widowed

1. Family size and number of children at school of the household head (please put figures):

   Male: ☐ Female: ☐

   Number of children < age 15: _____ Number of family members aged 16-64: _____

   Number of family members 65+: _____

2. Educational level of household head (Please mark as appropriate):
   Degree and above: ☐ Diploma holder: ☐ Grade 7- 12: ☐ Grade 1-6: ☐
   Only able to read and write: ☐ Not able to read and write: ☐

3. Do you have access to land? (Yes or No): _____, If Yes, what is the total land size (in hectare or in Timad): _____. Indicate the proportion of your land for Grazing: _____, for Crop production: _____, and Tree planting: _____

4. If your answer to question number 3 above is "yes", please indicate how you got access to the land:
   Allotment: _____Rent/lease: _____ Inheritance: _____ Gift: _____
   other (please Specify): _____

5. How do you rate the adequacy of your land size to support your household's living? (Please indicate)
   Extremely inadequate: ☐ Inadequate: ☐ Adequate: ☐ Very adequate: ☐

6. If you're your response to question number 3 is "yes", please answer the following:
   Amount of irrigated land (if any) in Timad: _____

7. Do you rent out your plot? (Yes or No): _____. If is yes, please indicate the reason below:
   Lack of Oxen: ☐ Unable because of age: ☐ Inability to buy farm inputs: ☐
   I am doing nonfarm activities: ☐ Due to health issue ☐

8. Which one of the following farming techniques do you use to improve land fertility and increase production?(mark as appropriate)

No.	Management Practice	No	Yes
1.	Use of chemical fertilizer		
2.	Using modern farming tools		
3.	Fallowing (field rotation)		
4.	Cropping rotation		
5.	Animal dung		
6.	Inter-cropping		
1.	Improved seeds		

3.	Herbicides		
4.	Insecticides		
7.	Other (specify)		

9. Pease indicate the average fertility rate of your farmland?

Very fertile: ☐ Moderately fertile: ☐ Poor: ☐ Very poor: ☐

10. The following statements are about the food eaten in your household in the past 12 months, and whether you were able to have or afford the food you needed. Please mark yes or no in the second column, and indicate the frequency of occurrence in the last column as 1 = Rarely, 2 = Sometimes, 3 = Often.

Statement	Indicate Yes or No	How often this happen? Put 1 for Rarely, 2 for sometimes, and 3 for Often
1. In the past four weeks, did you worry that your household would not have enough food?		
2. In the past four weeks, were you or any household member not able to eat the kinds of foods you preferred because of a lack of resources?		
3. In the past four weeks, did you or any household member have to eat a limited variety of foods due to a lack of resources?		
4. In the past four weeks, did you or any household member have to eat some foods that you really did not want to eat because of a lack of resources to obtain other types of food?		
5. In the past four weeks, did you or any household member have to eat a smaller meal than you felt you needed because there was not enough food?		
6. In the past four weeks, did you or any household member have to eat fewer meals in a day because there		

was not enough food?		
7. In the past four weeks, was there ever no food to eat of any kind in your household because of lack of resources to get food?		
8. In the past four weeks, did you or any household member go to sleep at night hungry because there was not enough food?		
9. In the past four weeks, did you or any household member go a whole day and night without eating anything because there was not enough food?		

11. Did you experience crop failure due to drastic environmental disasters in the past five years? (Please indicate Yes or No): _____. If your response is 'yes', please mention the main rainfall shortage years? _____

12. What are the visible signs of environmental degradation in your area? Eroded land: ☐ Low vegetation cover: ☐

    Deep valley: ☐ Very small grazing land: ☐ Crop failure: ☐
    Other (specify): _____

13. If your answer to question num ☐ is "yes" what was ☐ nsequences/s? Multiple responses are possible .
    Temporary food shortage: ☐ Aid dependent: ☐ Relocation of your family:
    Other (specify):

14. Please indicate your main source of livelihood? Crop farming: ☐ Livestock raising: ☐
    Both crop farming and livestock raising: ☐

15. Please identify the crop type your household produced in 2009/2010 E.C by indicating the amount produced, consumed and sold.

Types of crop	Production in KGS	Amount consumed in KGS	Amount sold in KGS	Income obtained from sale
Barely				
Maize				
Wild oats				
Wheat				
Horse bean				
Linseed				
Lentils				
Other (specify)				

16. If you practice Livestock raising, please indicate the number of animals you currently own:
    Cattles: _____ Sheep and Goats: _____ Mules, Horses and Donkeys: _____
    Chicken: _____ Bee Hives: _____

17. Did your livestock number decreased in the past due to diseases? (Yes or No): _____. If yes, did you get animal health services? (Yes or No):_____. Please specify:
    _____

18. Are you or your family member engaged in other income generating activity? (Please indicate below):

Non-farm Livelihood Activities	Response		Monthly income
a. Trading activities	Yes	No	
b. Unskilled wage employment (laborer in construction, guards)			
c. Skilled labor (handicraft, weaving, carpentry, flourmill operator)			
d. Professional employment (teacher, kebele worker)			
e. Renting properties (pack animals, house in urban areas)			

f. Remittance from household members/relatives			
g. Working for other farmers			
h. Food for work			
i. Other (specify)			

19. Has there been a decrease to your total land size/plots owned over the past five years? (Yes or No): ☐

_____. If Yes, mark the reasons: Leased out or rented: ☐ Kebele took it: ☐

Degraded by flood: ☐ Redistributed for family member: ☐

other (specify): _____

20. Has your household received any food or cash from the government Safety Net Programme during the past five years? (Yes or No): _____. If yes, would you tell us the change Interms of what cash, asset, and adequate food availability since the Safety Net programme started? (e.g. did it help for transition to a better productive season, do you have more cash/property?

_____

21. During the last hungry season, what did your household do to survive? Please indicate as appropriate:

Measures Taken	Yes	No
a. Eat less food (smaller portions)		
b. Skipping meals for adults to feed children		
c. Not eating the whole day sometimes		
d. Eating wild food		
e. Buy food on credit basis		
f. Household members seeking work in the vicinity		
g. Sale of fire wood/ charcoal/grass		
h. Sale of local drinks		
i. Participate in food for work or cash for work programs		
j. Inter households/relatives and borrowing of food and cash		
k. Temporary migration		
l. Permanent migration		
m. Sale of personal household valuables		
n. Withdraw children from schools		

o. Renting land		
p. Withdrawing children from school		
q. Other (specify):		

22. Any additional comment concerning food security:

_____

_____

Annex 2

Causes and Coping Strategies of Food Insecurity among
Rural Households in Kimbibit Woreda, Oromia National Regional State

Key Informant Interview

1. Would you please describe rural livelihood activities in the woreda.
2. What does the woreda land use pattern, productivity practices looks like?
3. Has there been any drastic draught happened in the woreda? What were the cause and how it was managed?
4. How do you evaluate the farm input delivery for the rural population?
5. Any other comments?

Checklists for Focus Group Discussion

1. What other alternative income generating activity you practice?
2. What are your livelihood activities undertaken in your area?
3. What do you think is the contribution of each livelihood activities in your effort to secure food for your household?
4. What is the main source of your food at present? Is that reliable? How you supplement your living in order to secure your food needs?
5. What do you think are the challenges for small holder farmers in this area?

Annex 3

አዲስ አበባ ዩኒቨርስቲ

በቢዝነስና ኤኮኖሚክስ ትምህርት ክፍል

ቃለ መጠይቅ

በኦሮሚያ ብሔራዊ ክልላዊ መስተዳደር፣ በቅምብቢት ወረዳ
በገጠሩ ክፍል የምግብ ዋስትና ማጣትና ችግሩን ለመቋቋም የተወሰዱ የመፍትሔ አቅጫዎች ጥናት

ውድ የዚህ ቃለ መጠይቅ ተሳታፊ!

ይሄ መጠይቅ የተዘጋጀው በሕዝብ አስተዳደርና ልማት ማኔጅመንት መስክ በድህረምረቃ /ማስተርስ/ ዲግሪ ማሟያ የሚሆን ጥናት ለማድረግ ነው፡፡ የጥናቱም ርዕስ በኦሮሚያ ብሔራዊ ክልላዊ መስተዳደር፣ በቅምብቢት ወረዳ በገጠሩ ክፍል የምግብ ዋስትና ማጣትና ችግሩን ለመቋቋም የተወሰዱ የመፍትሔ አቅጫዎች ሲሆን፣ ከዚህ መጠይቅ የሚገኘው መረጃ ለትምህርትና ምርምር ጉዳይ ብቻ የሚውል መሆኑን እንገልጻለን፡፡

የአባ/ እማወራ ሙሉ ስም /አማራጭ/				
የመታወቂያ/ የቤት ቁጥር /አማራጭ/				
ቃለ መጠይቅ የጠየቀው ሰው ስም				
የቀበሌው ስም				
ቃለ መጠይቅ የተደረገበት ቀን				
ቃለ መጠይቅ የተደረገበት ሰዓት	የተጀመረበት ሰዓት___		የሚያልቅበት ሰዓት___	
የቦታው የአየር ሁኔታ /ምልክት ያድርጉ/	ደጋ		ወይና ደጋ	ቆላ
የተጠየቀው ሰው ጾታ /ምልክት ያድርጉ/	ሴት		ወንድ	
እድሜ				
የጋብቻ ሁኔታ /ምልክት ያድርጉ/	ያላገባ/ች	ያገባ/ች	የፈታ/ች	የሞተባት/ችበት

1. የአባ/ እማወራ ቤተሰብ አባላት ብዛትና በትምህርት ላይ የሚገኙ ልጆች ቁጥር ብዛት / እባክዎን በቁጥር ይግለጹ፡፡

ወንድ _____ ሴት _____

ዕድሚያቸው ከ5 ዓመት በታች የሆኑ ልጆች ቁጥር ብዛት: _____

ዕድሚያቸው ከ16-64 ዓመት የሆኑ የቤተሰብ አባላት ብዛት: _____

ዕድሚያቸው ከ65+ ዓመት የሆኑት የቤተሰብ አባላት ብዛት: _____

2. የአባወራ /ሃላፊ/ የትምህርት ደረጃ / እባክዎን ምልክት በማድረግ ይግለጹ፡፡

ዲግሪና ከዛ በላይ _____ ዲኘሎማ _____ ከ 7- 12 ክፍል _____ ከ 1-6 ክፍ_____

ማንበብና መጻፍ የሚችል _____ ማንበብና መጻፍ የማይችል_____

3. መሬት አልዎት? (አዎ ወይንም አይደለም) _____ አዎ ካሉ የመሬቱን ስፋት በሄክታር ወይንም በጥማድ ይግለጹ፡ _____

ለምን መሬቱን እንደሚጠቀሙበት ከዚህ በታች ይጥቀሱ፣ ለግጦሽ: _____ ለእርሻ: _____ ለዛፍ ተከላ: _____

4. ለጥያቄ 3 መልሶ አዎ ከሆነ / እባክዎን መሬቱን ያገኙበትን ሁኔታ ምልክት በማድረግ ይግለጹ፡፡

በክፍፍል: _____ በኪራይ: _____ በውርስ፡ _____ በስጦታ የተገኘ: _____ በሌላ በኩል ከሆነ ይግለጹ:_____

5. በእርስዎ አስተያየት ያለዎት የመሬቱ ስፋት እርሶንን ለቤተሰብዎን ለመመገብ በቂ ነውን? እባክዎን ምልክት በማድረግ ይግለጹ፡፡

እጅግ በጣም በቂ _____ በጣም በቂ _____በቂ _____ በቂ ያልሆነ_____

6. ለጥያቄ 3 መልሶ አዎ ከሆነ በመስኖ የተገደበ የመሬት ስፋት ካለ በጥማድ ይግለጹ: _____

7. ካልዎት የመሬት ስፋት ላይ ያከራዩት አልዎት ? (አዎ ወይንም አይደለም) _____ መልሶዎ አዎ ከሆነ እባክዎን ምክንያቱን ይግለጹ፡፡

ለማረሻ የበሬ እጥረት_____ ከእድሜ _____ ብዛት _____ ለእርሻ የሚሆን ግብአት መግዣ አቅም ማጣት_____

ከእርሻ ውጭ ሌላ ሥራ ስለምሠራ _____ በጤንነት ችግር ምክንያት _____

8. ከዚህ በታች ከተዘረዘሩት የአፈር ለምነትንና ምርታማነትን የጠበቀ የአስተራረስ ዘዴ የትኛውን ይጠቀማሉ?

የእርሻ የአሠራር ዘዴ	አይደለም	አዎ
ኬሚካል ማዳበሪያ መጠቀም		
ዘመናዊ የእርሻ መሣሪያ መጠቀም		
እርሻ መሬቱን በተራ በተራ ማረስ		
ዘሩን ተራ በተራ እያለዋወጡ መዝራት		
የኩበት ፍግ በመጠቀም		
በመስመር የተለያየ አዝዕርትን መዝራት		
ምርጥ ዘር በመዝራት		
አረም ማጥፊያ በመጠቀም		
የተባይ ማጥፊያ በመጠቀም		
ሌላ ዘዴ በመጠቀም /ይግለጹ/		

9. የእርሻ መሬቶ ምን ያህል የዳበረ መሆኑን ከዚህ በታች ይግለጹ፡፡

በጣም የዳበረ _____ መካከለኛ የዳበረ _____ ያልዳበረ _____ በጣም ያልዳበረ_____

10. በቤት ውስጥ ባላለፉት 12 ወራት ውስጥ ቤተሰብዎ በቂ ምግብ ማግኘቱንና አለማግኘቱን፣ በተመለከተ ከዚህ በታች በተሰጠው ቁጥር መሠረት በተደጋጋሚ የተከሰተውን ይግለጹ 1 = አልፎ አልፎ 2 = አንዳንድ ጊዜ 3 = ሁልጊዜ

11.

ሁኔታ	አዎ ወይንም አይደለም በማለት ይግለጹ	በምን ያህል ጊዜ ይከሰታል? 1 = አልፎ አልፎ 2 = አንዳንድ ጊዜ 3 = ሁልጊዜ
1. ላለፉት 4 ሳምንታት ውስጥ በቤት ውስጥ በቂ ምግብ ባለመኖሩ ምክንያት ቤተሰብዎ ሃሳብ ገብቶት ያውቃል ወይ?		
2. ላለፉት 4 ሳምንታት በቤት ውስጥ እርስዎም ሆነ ቤተሰብዎ የሚፈልጉትን የምግብ ዓይነት መመገብ ያልቻሉበት ምክንያት በቂ ምግብ ባለመኖሩ ነው?		
3. ላለፉት 4 ሳምንታት ውስጥ በቤት ውስጥ እርስዎም ሆነ ቤተሰብዎ ውስን የምግብ ዓይነት የሚመገቡበት ምክንያት በቂ ምግብ ባለመኖሩ ነው?		
4. የምግብ እጥረት ስላለ ላለፉት 4 ሳምንታት በቤት ውስጥ እርስዎም ሆነ ቤተሰብዎ የማይፈልጉትን እየተመገቡ ነበር፡፡		
5. በቂ ምግብ ባለመኖሩ ላለፉት 4 ሳምንታት ውስጥ በቤት ውስጥ እርስዎም ሆነ ቤተሰብዎ ሳይጠግቡ አነስተኛ ምግብ ብቻ ይበሉ ነበር ወይ?		
6. በቂ ምግብ ባለመኖሩ ላለፉት 4 ሳምንታት በቤት ውስጥ እርስዎም ሆነ ቤተሰብዎ በቀን ትንሽ ምግብ ብቻ ይመገቡ ነበር?		
7. በቂ ምግብ ባለመኖሩ ላለፉት 4 ሳምንታት በቤት ውስጥ እርስዎም ሆነ ቤተሰብዎ ምንም ምግብ ሳይመገቡ ቆይተዋል?		
8. በቂ ምግብ ባለመኖሩ ላለፉት 4 ሳምንታት በቤት ውስጥ እርስዎም ሆነ ቤተሰብዎ ምንም ምግብ ሳይመገቡ ያደሩበት ቀን አለ?		
9. በቂ ምግብ ባለመኖሩ ላለፉት 4 ሳምንታት በቤት ውስጥ እርስዎም ሆነ ቤተሰብዎ ቀንና ሌሊት ምንም ምግብ ሳይመገቡ ቆይተዋል?		

12. ላለፉት 5 ዓመታት በአየር መዛባት ምክንያት የሰብል መበላሸት ደርሶበታል ወይ? (አዎ ወይንም አይደለም) _____
መልሶዎ አዎ ከሆነ እባክዎን ከፍተኛ የዝናብ እጥረት የደረሰበትን ዓመታት ይግለጹ፡_____

13. በዕርሶዎ አካባቢ የመሬት መራቆት የሚያሳዩ ምልክቶች የትኞቹ ናቸው? የአፈር መሸርሸር_____ የደን መሳሳት_____
ሽለቆ መሆን _____ በጣም አነስተኛ የግጦሽ መሬት_____ የሰብል መበላሸት_____ሌላ ምክንያት ይግለጹ፡፡_____

14. ለጥያቄ 11 መልሶዎ አዎ ከሆነ የደረሰውን ጉዳት ከዚህ በታች ያመልክቱ፡፡
ጊዜያዊ የምግብ እጥረት _____የምግብ ተረጂነት_____ ቤተሰብዎን በተለያየ ሥራ ማሠራት_____ሌላ ይግለጹ፡፡_____

15. እባክዎን ዋና የገቢ ምንጭዎን ወይንም መተዳደሪያዎን ያመልክቱ፡ የእርሻ ሰብል ሥራ_____የከብት እርባታ ሥራ_____

የእርሻና የከብት እርባታ ሥራዎች _____

16. እባክዎን ከዚህ በታች በተዘረዘረው መሠረት በ2009 እና 2010 ዓ.ም. የምርት ዘመን ያመረቱትን፣ ለቤት ፍጆታና ለገበያ የዋለውን የምርት ዓይነትና መጠን በኪሎ ግራም ያመልክቱ፡፡

የምርት አይነት	የምርቱ መጠን በኪሎ ግራም	ለቤት ፍጆታ የዋለ በኪሎ ግራም	ለገበያ ያወጡትን በኪሎ ግራም	ከሽያጭ የተገኘ ገቢ በብር
ጉበስ				
በቆሎ				
አጃ				
ስንዴ				
የቅባት እህል				
አተር				
ምስር				
ባቄላ				
ሌሎች ካሉ ይዘርዝሩ				

17. በከብት እርባታ ሥራ ላይ የተሠማሩ ከሆነ ምን ያህል እንሰሶች እንዳልዎት ከዚህ በታች ያመልክቱ፡፡
የቀንድ ከብት _____ በግና ፍየል _____ የጋማ ከብቶች _____ ዶሮ _____ የንብ ቀፎ _____

18. ከዚህ በፊት በበሽታ ምክንያት የከብትዎ ብዛት ቀንሷ ያውቃል ወይ? (አዎ ወይንም አይደለም) _____መልሶዎ አዎን ከሆነ የእንሰሳ ጤና አገልግሎት አግኝተው ያውቃሉን? እባክዎን ይዘርዝሩ፡፡_____

19. እርስዎም ሆነ ቤተሰብዎ ከእርሻ ሥራ በተጨማሪ ከታች በተዘረዘሩት የሥራ ዘርፎች የተሰማሩ ከሆነ ያመልክቱ፡፡

የሥራ ዘርፍ	መልስ		የወር ገቢ
በንግድ ሥራ ዘርፍ	አዎ	አይደለም	
በተለያየ የቀን ሥራ ዘርፎች እንደ ጥበቃ ሥራ፣ ግንበኛ			
የሰለጠነ ባለሙያ /የእጅ ሥራ፣ ቀጥቃጭ፣ ሸማኔ፣ የወፍጮ ቤት ሠራተኛ፣ አናጺ			
ፕሮፌሽናል ተቀጣሪ / መምህር ፣ የቀበሌ ሠራተኛ/			
እቃና እንሰሶች ማከራየት			
ከቤተሰብ/ ከዘመድ አዝማድ ከውጭ አገር የሚላክ የገንዘብ ድጎማ			
ለሌለች ሰዎች በክፍያ የእርሻ ሥራ ማከናወን			
ምግብ ለሥራ			
ሌላ ሥራ ካለ ይግለጹ			

20. ላለፉት 5 ዓመታት የእርስዎ የመሬት ይዞታ ስፋት ቀንሷልን? (አዎ ወይንም አይደለም) _____መልስዎ አዎ ከሆነ ምክንያቶትን እንደሚከተለው ያመልክቱ፡፡ አከራይተውታል _____ ቀበሌ ወስዶታል _____ በጐርፍ ተሸርሽሮ ቀንሷል _____ ለተወላጅ ልጆች ተከፋፍሏል _____ በሌላ ከሆነ ይግለጹ፡፡_____

21. ላለፉት 5 ዓመታት እርስዎ ወይንም ቤተሰብዎ ከመንግስት እርዳታ ተቀብለው ያውቃሉን ወይንም በእርዳታ ታቅፈው ተጠቃሚ ነበሩን? (አዎ ወይንም አይደለም) _____ መልሶ አዎ ከሆነ / እባክዎን እርዳታው ያመጣውን የበጎንዘብ፣ የንብረት ወይንም በምግብ አቅርቦት ለውጥ ይግለጹ፡፡ _____
_____
_____

22. ባላለፉት የድርቅ ወቅቶች በደረሰብዎ የምግብ እጥረት ምክንያት ችግሩን ለመቋቋም እርስዎና ቤተሰብዎ የወሰዱት እርምጃ ምን እንደነበር ከዚህ በታች ባለው ሠንጠረዥ ያመልክቱ፡፡

የተወሰደው እርምጃ	አዎ	አይደለም
አነስተኛ መጠን ያለው ምግብ መመገብ		
ለልጆቻቸው እንዲተርፍ ወላጆች አነስተኛ መጠን ያለው ምግብ መመገብ		
አልፎ አልፎ ቀኑን ሙሉ ምግብ አለመመገብ		
ያልተለመደ ምግብ መመገብ		
በብድር ምግብ መግዛት		
አባወራና ቤተሰብዎ ለሌላ ሰው ተቀጥሮ መሥራት		
እንጨት ፣ ከሰል ወይንም ሣር መሸጥ		
በአካባቢው የሚዘጋጅ መጠጥ መሸጥ		
ምግብ ለሥራ ወይንም ገንዘብ ተከፍሎ ሥራ መሥራት		
ከዘመድ ምግብ ወይንም ገንዘብ ተበድሮ መጠቀም		
ጊዜያዊ ስደት		
ቋሚ ስደት		
ትልቅ ዋጋ ያለውን የቤት ንብረትና ጌጣጌጥ መሸጥ		
ልጆችን ከትምህርት ቤት ማስወጣት		
የእርሻ መሬትን ማከራየት		
ሌላ አማራጭ ካለ ይግለጹ፡፡		

23. የምግብ ዋስትናን አስመልክቶ ሌላ ተጨማሪ አስተያየት ካለዎት ከዚህ በታችይግለጹ፡፡_____

አመሰግናለሁ!

Annex 4

አዲስ አበባ ዩኒቨርስቲ
በቢዝነስና ኤኮኖሚክስ ትምህርት ክፍል

<u>ቃለ መጠይቅ</u>

በኦሮሚያ ብሔራዊ ክልላዊ መስተዳደር፣ በቅምብቢት ወረዳ
በገጠሩ ክፍል የምግብ ዋስትና ማጣትና ችግሩን ለመቋቋም የተወሰዱ የመፍትሔ አቅጫዎች ጥናት

ውድ የዚህ ቃለ መጠይቅ ተሳታፊ!
ይሄ መጠይቅ የተዘጋጀው በሕዝብ አስተዳደርና ልማት ማኔጅመንት መስክ በድህረምረቃ /ማስተርስ/ ዲግሪ ማሟያ የሚሆን ጥናት ለማድረግ ነው፡፡ የጥናቱም ርዕስ በኦሮሚያ ብሔራዊ ክልላዊ መስተዳደር፣ በቅምብቢት ወረዳ በገጠሩ ክፍል የምግብ ዋስትና ማጣትና ችግሩን ለመቋቋም የተወሰዱ የመፍትሔ አቅጫዎች ሲሆን፣ ከዚህ መጠይቅ የሚገኘው መረጃ ለትምህርትና ምርምር ጉዳይ ብቻ የሚውል መሆኑን እንገልጻለን፡፡

ጠቃሚ መረጃ የሚሰጡ ቃለ መጠይቅ ተሳታፊዎች

6. እባክዎ በቅምብቢት ወረዳ ገጠራማ ቦታዎች የነዋሪውን የንሮ ምንጭ ይግለጹልን?
7. እባክዎ በቅምብቢት ወረዳ ገጠራማ ቦታዎች የነዋሪውን የመሬት አጠቃቀም ሥርዓትና ምርታማነቱ ምን እንደሚመስል ይግለጹልን?
8. ከዚህ በፊት በወረዳ ከፍተኛ ድርቅ ተከስቶ ያውቃልን? እባክዎ የድርቁ ምክንያቶቹና እንዴት መቋቋም እንደተቻለ ይግለጹልን?
9. በወረዳችሁ ለግብርና ወይንም ለእርሻ የሚሆኑ ግብዓቶች አቅርቦትን እንዴት ይገመግሙታል ?
10. ሌላ ተጨማሪ አስተያየት ካልዎት ይግለጹ ?

የቡድን ውይይት መድረክ

6. እባክዎ በቅምብቢት ወረዳ ገጠራማ ቦታዎች የነዋሪውን የንሮ ምንጭ ይግለጹልን?
7. ከእርሻ ሌላ ሌሎች የገቢ ማስገኛ ምንጮች ካልዎት ይግለጹልን?
8. ለእርስዎና ለቤተሰብዎ የሚያስፈልጐትን ተገቢ የምግብ አቅርቦት ለማግኘት የሚያደርጓቸው የገቢ ማስገኛ እንቅስቃሴዎች እድምታ ምን እንደሚመስል ይግለጹልን?
9. በአሁኑ ወቅት ዋናው የእርስዎ የገቢ ምንጭ ምንድን ነው? አስተማማኝነቱስ? ንሮውን የሚደጉሙበት ሌላ መንገድ አልዎት?
10. በዚህ ወረዳ ነዋሪ ለሆኑ አነስተኛ የመሬት ይዞታ ላላቸው ገበሬዎች ምን አይነት ተግዳሮት እንዳላቸው ይግለጹ?
11. ሌላ ተጨማሪ አስተያየት ካልዎት ይግለጹ ?

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Abbreviations

ADB:	African Development Bank
ADLI:	Agricultural Development Led Industrialization
CSI:	Coping Strategies Index
DFID:	Department for International Development
EPSNP:	Ethiopia Productive Safety Net Program
FAD:	Food Availability Decline
FAO:	Food and Agricultural Organization
FDRE:	Federal Democratic Republic of Ethiopia
FED:	Food Entitlement Decline
FGD:	Focus Group Discussion
FS:	Food Security
GDP:	Gross Domestic Production
HFIAS:	Household Food Insecurity Access Scale
HFIASD:	Household Food Insecurity Access Domains
HIV/AIDS:	Acquire Immunity Deficiency Syndrome
IFPRI:	International Food Policy Research Institute
KII:	Key Informant Interview
MoARD:	Ministry of Agricultural Rural Development
MS-Excel:	Microsoft Excel
NCFS:	New Coalition for Food Security
NDRMC:	National Disaster Risk Management Commission
NPC:	National Planning Commission
PAI:	Population Action International
PASDEP:	Plan for Accelerated Sustainable Development to End Poverty
PSNP:	Productive Safety Net Program
RED:	Rural Economic Development
SPSS:	Statistical Package for Social Science
SSA:	Sub-Saharan Africa
UN:	United Nations
UNICEF:	United Nations Children Education Fund
WB:	World Bank

WFP:	World Food Program
HH:	Household
CSA:	Central Statistics Agency