

**HOUSEHOLD FOOD INSECURITY SITUATION AND THEIR COPING  
STRATEGIES IN URBAN SETTING: THE CASE OF GIMBICHU  
TOWN, HADIYA ZONE, SNNPR, ETHIOPIA.**

**M.A. THESIS**

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**Household Food Insecurity Situation and Their Coping Strategies in Urban  
Setting: The Case of Gimbichu Town, Hadiya Zone, SNNPR, Ethiopia.**

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DEVELOPMENT PLANNING)**

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## **DEDICATION**

This part of work is dedicated to the memories of my father **TEREFE CHONCHORE**, whom my beloved mother **AMARECH DASTA**, for nursing me with affection and love and for their dedicated partnership in the achievements of my life. But all of my family has pitched in to help and support me.

## STATEMENT OF THE AUTHOR

By my signature below, I declare and affirm that this Thesis is my own work. I have followed all ethical and technical principle of scholarship in the preparation, data collection, data analysis and compilation of this Thesis. Any scholarly matter that is included in the Thesis has been given recognition through citation.

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## ACRONYMS AND ABBREVIATIONS

<b>CFSM</b>	Core Food Secure Module
<b>CSA</b>	Central Statistical Agency
<b>ETB</b>	Ethiopian Birr
<b>FAD</b>	Food Availability Decline
<b>FAO</b>	Food and Agricultural Organization
<b>FDRE</b>	Federal Democratic Republic of Ethiopia
<b>FED</b>	Food Entitlement Decline
<b>FID</b>	Food Intervention Decline
<b>HFIAS</b>	Household Food Insecurity Access Scale
<b>HFS</b>	Household Food Security
<b>HHHs</b>	Household Heads
<b>HoA</b>	Horn of Africa
<b>Kcal</b>	Kilo Calorie
<b>MARDFSCB</b>	Ministry of Agriculture and Rural Development Food Security Coordination Bureau
<b>MoFED</b>	Ministry of Finance and Economic Development
<b>PA</b>	peasant associations
<b>NGOs</b>	Non-Governmental Organization
<b>SNNPR</b>	South Nation Nationalities and People's Region
<b>SPSS</b>	Statistical Package for Social Sciences
<b>UA</b>	Urban Agriculture
<b>UN</b>	United Nations
<b>UNEP</b>	United Nations Environmental Programme
<b>UNFPA</b>	United Nations Population Fund
<b>WB</b>	World Bank
<b>WFP</b>	World Food Program
<b>WVE</b>	World Vision Ethiopia

## **BIOGRAPHICAL SKETCH**

The author was born in Hadiya zone at Gimbichu Town from his father Ato Terefe Chonchore and his mother W/ro Amarech Dasta on September 10, 1988. He attended his elementary and junior secondary education from grade 1-8 in Gimbichu Town and senior secondary school education at Gimbichu high school grade 9-12 respectively. He joined Haramaya university department of geography and environmental studies student for the first degree in year 2009. After that he has been assigned and has been working in Gimbichu high school as teacher of geography from 2010 to 2012.E.C. Then after, he joined Haramaya University in 2013 to pursue graduate studies for the degree (M.A) in department of geography and environmental studies and Specialization in Urban and Regional Development Panning.

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**ABSTRACT**

*Now a day food insecurity issues become one of the serious concern and top priority area for developing countries. Urban areas are faced with the problem of increasing population and consequently inadequate supply of food items. With the current progressing urbanization, increasing urban poverty trends, and rapid run-up in prices of food, the question of urban food insecurity could become one of the greatest challenge for many urban households, and the concern of food insecurity are progressively shifting from rural to urban. Hence, this study was conducted to assess household's food insecurity situation, to identify the factors affecting food insecurity on the households as well as their coping strategies. In order to achieve these objectives demographic and as socio-economic data were collected, the researcher has used 125 respondents for questionnaire, and 13 FGD respondents, 12 key informant interview respondents. Households were selected using systematic random sampling procedure proportional to size from the selected three kebele of the study area. Totally 150 individuals were involved during data collection in the study area. Both qualitative and quantitative methodologies were applied. The triangulation of structured interview of sample households, in-depth interview with key informants, focus group discussions, observations, published and unpublished materials were employed as sources of data. The data were analyzed using descriptive statistics such as table, figure, percentage, and frequency distribution. HH size, HHHs income, HHHs age, HHHs education, owning bank account, marital status, and income from remittance and gift were found to influence the HHs food insecurity in the study area. The finding of the study on the types of coping strategies used by households in the study area has shown that HHs implement various coping strategies at the food shortages. On the other hand, reduction of the size of meals; reduction in number of meals per day, barrowing cash, received food aid and become daily labor were found to be more frequently practiced coping strategies. From the coping strategies of households 69(55.2%) respondents told cheaper foods, 43(34.4%) respondents used reduced meal frequencies and 13(10.4%) respondents used smaller quantities to eat. The major coping strategies against food shortags were the purchase of less preferred food and reduction in the quantity of meals. Moreover, the study recommended the capacity building for elderly and female headed household, provision of better family planning to reduce HH size ; getting better urban infrastructure and social services, promoting urban agriculture and strengthen HH asset building programs to strengthen the link between urban development and food security programs and rural development as strategies to enhance the accessibility of food for urban HHs. The study recommends that efforts at reducing food insecurity among urban HHs should focus on increasing urban HH income and food supply.*

**Key words:** *Urban; Household; Food Security; Food Insecurity; impact; Coping Strategies*

# 1. INTRODUCTION

This chapter is intended to provide the background of the study, statement of the problem, research objectives and questions. Moreover, it presents other sections such as significance, Scope, limitations of the study; operational definitions of terms and organization of the thesis are included also here.

## 1.1. Background of the Study

The majority of the global human population is now residing in cities with all the additional effects and consequences, particularly on food consumption pattern (Martinez *et al.* 2008). At the beginning of the twentieth century, there were less than 20 cities in the world with a population of one million or more. Most of these cities were in advanced industrial economies. By the turn of the twenty first century, this figure had crossed 400. Since 2007, cities became the living areas of more than 50% of the world's population (Girma, 2014).

The number of undernourished people in the world is 925 million in 2010. Developing countries account for 98 percent of the world's undernourished people (FAO and WFP, 2010). According to FAO's reports (2010), approximately 33 percent of the population in Sub-Saharan Africa is undernourished. The reports also indicate that there are 307 million hungry people in Africa, with most of these living in Sub-Saharan Africa (265 million). More than 40 percent of the population in the Horn of Africa (HoA) is undernourished and millions are food insecure (WFP, 2010). Food is essential in human being's life. Enough food in terms of quantity and quality for all people is an important factor for a nation to continue its development.

Urban food security problems in Africa receive little attention partly because it tends not to be linked to seasonal or community wide process and partly because of a long held belief that urban populations are better off but urban food insecurity is directly linked to urban poverty and inequality and for this reason research on urban food security must focus on the question of access to food (Maxwell, 2005).

This urban population growth will be most significant in low income countries, particularly in Africa and Asia. According to FAO (2011), African countries fell under the category of Low-Income-Food-Deficit-Countries in 2011, and out of 29 countries worldwide requiring external food assistance, 21 of them, including Ethiopia, are in Africa. They are confronted with different causes of food insecurity. For example, Sub-Saharan African cities face a discouraging set of problems including rapid growth of urban population, increasing poverty, deteriorating infrastructure, and inadequate capacity for service provision (Maxwell, D. 2009). According to the FAO (2010) the number of undernourished people in sub-Saharan Africa represents one third of the population. This constitutes a significant indicator of food insecurity.

Ethiopia's current urban population is about 13 million (16.5% of the country's total population). Compared to other African countries, Ethiopia's level of urbanization is low. However, the urban population is increasing rapidly with an average growth rate of 4% per year (CSA, 2006). This population growth rate will probably result in Ethiopia's urban population exceeding 50 million by 2050. (WFP, 2009).

Poverty remains widespread in Ethiopia. Using a consumption-based measure of poverty, 38.7 percent of Ethiopians were poor in 2004/05, implying that 27.5 million people were living below the poverty line. Poverty is slightly higher in rural areas (39.3 percent) than it is in urban areas (35.1 percent) (MOFED, 2008). Nevertheless, the global increase of cereal and pulses price and the global financial crisis has put challenges on and increases food insecurity in urban areas of the country (Ejigayhu, 2011). This further driven by unemployment, underemployment, lack of sanitation, rising cost of living, reduced inter-dependency among urban households, household composition, low benefit ownership, low level of education, high dependency on the informal sector, HIV/AIDS (estimated at 7.7 % occurrence in urban areas) and increased population pressure due to natural growth and rural-urban migration (WFP, 2009).

While explaining the food security situation, Messay (2010) said that in Ethiopia, it is not only the individuals' or households' inability to obtain adequate food that matters but the inadequate food production at the national level is also a source of great concern for the existing severe food insecurity in the country. According to (Degefa, 2008), this food insecurity is aggravated by the



rural-urban emigration. This in turn has placed pressure on physical, economic and social infrastructure and services. This also became a threshold to urban poverty, unemployment, inadequate shelter, poor sanitation, contaminated or depleted water supply, air pollution and other forms of environmental degradation.

This study focuses on household food insecurity situations and their coping strategies among urban poor in Gimbichu town. One of the reasons for the selection of the area is the unmatched growth of population in the town with limited urban social services. There is also a wide gap between households food purchasing power (access to food) compared with rising food prices. This directly has impact on the food security of the households in the study area.

## **1.2. Statement of the Problem**

Ethiopian towns of different size are not well developed to receive the ever-increasing rural-urban migrants. Economic activities in urban centers could not absorb illiterate migrants or those with low educational background. Among the well noticed net results of unprecedented increase of urban population has been the expansion of urban poverty and food insecurity (MOFED, 2006). The problem of food insecurity has wide diversity and multiple dimensions, which ranges from the global, regional, country, local, household to individual level.

A quarter of the world's urban population is currently estimated to live in absolute poverty, with many more living under substandard conditions. At the same time, the gap between the rich and the poor is widening. Local governments in many of the world's poorest cities are unable to provide even the most basic needs of their citizens. At least 20 million urban dwellers are currently estimated to lack access to clean drinking water, and more than 420 million do not have access to the simplest latrines. The poor in urban areas are always at risk (World Bank, 2006). One of the most significant challenges facing humanity during 21<sup>st</sup> century will be how to follow three key goals simultaneously: global food security, environmental sustainability and poverty reduction (Vosti and Reardon, 1997).

Even though there are various determining factors, migration of rural agrarian people to the town is one of the major contributing factors for the rising food insecurity among urban poor (Degefa, 2008). The phenomenon is very common in the developing countries where the migration happens for better wages and prosperous life. The situation for the migrants is alarming as they end up becoming economically poorer daily workers who earn and pay for the food daily with no scope for savings. In relation to rural-urban migrants and urban poor, Mustafa (1999) stated that poverty is increasingly an urban phenomenon: more of the rural poor are migrating to the cities, more of those born in cities are poor families, and more urban middle class residents fall under the poverty line. Obviously, this situation aggravates the FI problem of the urban poor.

Some features of urban food insecurity, and the strategies followed to manage it, are similar to those of rural food insecurity, but there are also key differences. Since urban people spend such a high proportion of their income on food, urban poverty immediately translates into food insecurity. The main feature of urban food insecurity is vulnerability to changes in food prices and wages Swift and Hamilton (2000). Poor urban dwellers adopt various coping strategies to cope with such food insecurity. Thus, this study attempt to explore the main causes/determining factors of food insecurity, situations of food insecure poor people, and their coping strategies against food insecurity, in urban setting.

Several studies that have been conducted so far in the field of food insecurity gave more emphasis to the rural area of the country (Abebaw 2003, Tesfaye 2005, Alem and Shumiye, 2007). Other researchers conducted their studies in City like Addis Ababa but focused on urban food insecurity and poverty (Ejigayhu, 2011). However, this study focused on household food insecurity in town. The extent of food insecurity problem differs from place to place and in accordance to the social position and actual life conditions of a particular place. So that research undertaking in area of food insecurity at the Gimbichu Town is essential since the results may give spot light to development planners in order to combat its problem at the urban level. More precisely the main target of this study is to fill the gaps identified in the previous researches.

### **1.3. Objectives of the Study**

The general objective of the study is to analyse household food insecurity situations and their coping strategies among urban poor in Gimbichu town.

The specific objectives of the study include:

1. To examine the urban household food insecurity situation of the study area.
2. To investigate the factors affecting urban household food security in the study area.
3. To assess the coping strategies employed by households against food insecurity in the study area.

### **1.4. Research Questions**

Based on the above specific objectives, the research attempted to answer the following questions:

1. What is the urban household food insecurity situation of the study area?
2. What are the factors affecting urban household food security in the study area?
3. What are the coping strategies employed by households against food insecurity in the study area?

### **1.5. Significance of the Study**

This study can help the development practitioners, policy makers, local government, and household members to have better knowledge so as to create awareness about the food insecurity situation and their coping strategies in the study town. When all these stakeholders intervene, they can minimize the severity of food insecurity in Gimbichu town.

The study findings of this study can have social and empirical significance. It can generate evidences that are essential for the understanding of the food insecurity situation. Specifically, the study can give some information for further investigation and adds knowledge for the researchers who are interested to study this issue in other areas.

## **1.6. Scope of the Study**

This study encompasses the demographic characteristics, food insecurity situation, the factors affecting urban households and their coping strategies for food insecurity was employed as depth of this study. The study specifically focused on identifying major determinants of food insecurity at household level and its copying strategies in Gimbichu town. Thus, the study encompasses urban kebeles of the town. These are kebeles 01, 02, and 03 which total existing smallest administrative units in the town.

## **1.7. Limitation of the Study**

The investigator has encountered a number of shortcomings during the course of the study. The first major limitations faced by the investigator were financial and time constraints. Specially, financial limitation became a serious problem on how to enhance the research work due to the absence of sponsorship.

Secondly, as some of the questions were retrospective, some respondents had difficulties of recalling events such as their age at the time of leaving their place of birth or area of previous residence, the year of migration to Gimbichu town. In addition, due to cultural and other social influences some respondents were unwilling to provide correct information about their current monthly income, marital status and about the generally over all information of household food insecurity situation and their coping strategies in urban setting.

The third major challenge was related to the issue of generalization. The small sample used for this study cannot be generalized for all households dwelling in the three kebeles of the town. The survey sample did not include urban residents who are classified as street children and homeless population. The last challenge was that a researcher encountered unavailability of written materials during data collection especially in the three kebeles and Gimbichu town administration, to further strengthen the findings of the research about household food insecurity situation and their coping strategies in urban setting.

## 1.8. Definitions of Terms

<b>Asset ownership</b>	These are basically any kind and worth of assets owned by a household during the time of survey (Ellis and Eedward, 2004).
<b>Coping strategies</b>	Ways of reducing impacts of a negative event once it has occurred such as household food insecurity (Ellis, 2000).
<b>Food stability</b>	To be food secure, a population, household or individual must have access to adequate food at all times (Degefa, 2005).
<b>Food security</b>	is a condition that "exists when all people, at all times, have physical economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life"(World Bank, 1986).
<b>Food insecurity</b>	is the lack of access to produce food and to provide access to all people at all times to enough food for an active and healthy life (World Bank, 1986; Reutlinger, 1987).
<b>Household:</b>	a group of people who lives together in one house and makes common provision for essentials of living (Hailom, 2011).
<b>Livelihood</b>	a means that provides income to live on especially paid work. It is source of revenue or income, means of support, maintenance (Lautze <i>et al</i> , 2003).
<b>Kebele</b>	a smaller administrative unit in a town (Dessalegn, 2011).
<b>Urban area</b>	is characterized by higher population density and vast human features in comparison to the areas surrounding it (Tsfaye, 2006).

## **1.9. Organization of the Thesis**

This research paper is arranged as follows. The first chapter begins with introduction and followed by statement of the problem, objective of the study, research questions, significance of the study, scope of the study and it includes the limitations/ constraints/ that had encountered in the process of conducting this research. The second chapter contained the definitions, concepts, and theories of food security which were reviewed from the previous works of others in relation to the study objective.

Chapter three deals with area of the study, design and methodology of the study, sources of data, tools of data collection, and method of data analysis. Chapter four represents the presentation, analysis, discussion and interpretation of obtained data. The fifth chapter contained summary, conclusion and recommendations of the study.

## 2. REVIEW OF RELATED LITERATURE

In this chapter different literatures were reviewed in order to develop the information required for the study. Accordingly, it is reviewed about food security, coping strategies followed in cases when food insecurity occurs in the urban areas. The following sub titles discusses the concept of food security, major components of food security, theoretical approaches to food security, the food security indicators and measurements, household coping strategies, causes of food insecurity, about urban and poor urban livelihoods in relation to food security and finally it is concluded by having conceptual framework of food security determinants.

### 2.1. Concept and Definitions of Food Insecurity

Like as food security, food insecurity definition is forwarded by different researchers and international organizations. According to World Bank (1986) food insecurity can be defined as the lack of capability to produce food and to provide access to all people at all times to enough food for an active and healthy life". Hamilton (2000) defined food insecurity as limited or uncertain availability of nutritionally adequate and safe foods or limited or uncertain ability to acquire acceptable foods in socially acceptable ways.

### 2.2. Major Components of Food Security

The concept of food security can be seen in terms of four major components, as outlined by the world food programme (WFP). These components are: Availability of food, Access to food by individuals and households utilization, which has to do with a person's ability to select the food that they prefer, as well as absorb the nutrients in the food vulnerability of the individual to future shock (WFP, 2002).

**Food Availability:** is refers to when sufficient quantities of food are consistently available to all individuals with in a country or a region. Such food can be supplied through production, other domestic output, or commercial imports or food aid.

**Food Access:** depends largely on household purchasing power, which varies in relation to market integration, price policies and temporal market conditions.

**Food utilization:** is refers to person's ability to select the food that they prefer, as well as absorb the nutrients in the food. Effective food utilization depends, largely, on knowledge within the household of food storage and processing techniques, basic principles of nutrition, and proper childcare and illness management (WFP, 2002).

**Food vulnerability:** of the individual to future shocks, individuals should not be at risk of losing access of food as a consequence of a shock (WFP, 2002).

### **2.3. Theoretical Approaches to Food Security**

The general approach has pointed out a number of environmental and socio-economic attributes assumed to explain famine and food security. The principal ones include: rapid population growth, war and civil conflict, drought, ecological degradation, government mismanagement, unequal access to resources and unequal exchange, socio-economic and political dislocation (Getachew, 1995). The argument of this approach is that one or a combination of these can disturb food production. However, production failure may or may not result in famine or food insecurity. Due to this fact, the attributes (factors) are not precise explanations of the causation of the process of famine. It is in response to this major problem weakness that the specific approaches (models) of famine emerged (Degafa, 2002).

#### **2.3.1. The Food Availability Decline (FAD) Approach**

The Food Availability Decline Approach had been a dominant theoretical explanatory framework for food crises since the eighteenth century until, the year 1980. As quoted in Sen (1981) defined FAD as "The availability decline per capita of food for consuming unit". This approach conceived famine as shortages of food supplies per capita, motivated by natural factors; e.g., drought, floods and other calamities that undermine crops; or demographic factors, i.e., vegetative growth that goes beyond supply (Diana, 2007).



The central argument of this model is that “anything which disrupts food production such as drought, flood or war can cause famine, the logic being that a drought, flood or war causes crop failure and cattle death, reducing the availability of food in the affected region, and that such a food availability decline for an extended period by definition constitutes famine” (Degafa, 2002).

Hence, this argument claimed that hunger and famine do not necessarily evolve from lack of food supplies in the market, but lack of resources in sectors to produce or purchase them. This criticism over FAD ended up in the alternative model of ‘Entitlement’ proposed by the economist (Sen, 1981).

### **2.3.2. The Food Entitlement Decline (FED) Approach**

The entitlement approach emphasizes access to food or people’s relationship to the food, rather than the availability of food (Devereux and Maxwell, 2003). The main disagreement of this model is the simple presence of food in the economy or in the market does not entitle a person to consume it and thus starvation can set in without any obvious aggregate available fall (Getachew, 1995). Some of the catastrophic famines have occurred without FAD. For example, the Bengal famine of 1943, the Ethiopian famine of 1973 and 1984, and the Bangladesh famine of 1974 occurred due to lack of entitlement rather than due to lack of availability short fall (Fasil, 2005). Among many positive features of the FED approach over FAD, the following are very important: First it has emphasized upon demand rather than supply. Second, it allows vulnerable groups to be identified. Finally, it suggests more appropriate policy intervention. Although this approach has the above mentioned strength upon FAD, it has also its own limitations. Generally, food security signifies the combination of the above two approaches and food utilization because enough food must be available, and households must have the capabilities to acquire it (Degafa, 2002).

### **2.3.3. Food Intervention Decline (FID) Approach**

This approach originates from the recent and growing awareness that governments, and more generally political institutions and humanitarian agencies have the responsibility to protect all citizens by promoting direct public interventions (Sassi, 2010). According to this author's explanation, Food Intervention Decline approach argues that people become food insecure because food policies fail to guarantee food security. In particular, when these policies lack or decline people start suffering and severe food shortage may result in famines.

This approach, being focused on policies, identifies as major actors or all those institutions deputed to produce and implement actions to secure food. Governments, national and international organizations and agencies (such as FAO, WFP, etc.), are some of them. In the course of implementing this theory in to action, the involvement of communities is very important in problem analysis and identifying local practices that has to be encouraged. According to this approach, injection of public food stocks into key markets at free or subsidized prices; mixture of food supply and price control policies; cereal banks; direct transfer based intervention; credit support schemes; etc. are some of the proposals aimed at tackling an on-going crisis, experience coming from different countries.

It is clarified that too directly focus on policies and institutions failures in securing a safe and healthy food supply as the main merit of this approach, and some critical points arise considering intervention of foreign institutions or associations which are external to interested countries. In this case, agents have to pay great attention to make interested people participating in the planning and developing interventions. For example, when planning food aid interventions, international actors should pay particular attention to religious and cultural habits of interested populations in order to not deliver food that they "cannot eat" Sassi (2010). Moreover, local institutions and governments preparedness to crisis is fundamental to propose an efficient policy.

## 2.4. Measurement and Indicators of Food Security

To determine the incidence of poverty (number of poor), one has to establish a poverty line, a threshold level of per capital income or consumption below which an individual is considered to be poor. Establishing the poverty line starts with defining and selecting a “basket” of food items typically consumed by the poor. The quantity of the basket is determined in such a way that the given food basket meets a predetermined level of minimum calorie requirement. This basket is valued at nationally representative average prices to reach at a consistent poverty line across regions and groups. Once this is done, an allowance is made for the non-food component consistent with the spending patterns of the poor.

Food security is influenced by different socio-economic, environmental, and political factors. However, it is difficult to find a single indicator which is used to measure food security. Many different indicators are needed to capture the various dimensions at country, household, and individual levels (Hoddinott, 1999). As a result, assessment of food security has become difficult and necessitated an approach ranging from a mere quantitative to a combination of quantitative and qualitative measurements (Debebe, 1995, Ayalew, 2003).

According to Hoddinott (1999), there are four ways of measuring household and individual food security: individual intakes (either directly measured or 24-hour recall), household caloric acquisition, dietary diversity, and indices of household coping strategies. This ordering of methods is deliberate, moving from methods that are very time- and skill-intensive, but are regarded as being more accurate, to those that can be implemented quickly, are relatively undemanding in terms of the skills required by the implementers, but are more impressionistic. The Core food security Module has been designed, not only for use in national surveys, but also for local groups wanting to determine the extent and severity of food insecurity and hunger within their own communities, using a technically well-grounded and tested method (Bickel *et al.*, 2000).

## 2.5. Household Livelihood (Income) Assets

Households or individuals depend on a set of capitals as a base for their livelihood. The framework contains five assets categories of natural capital, human capital, physical capital, financial capital and social capital (Ellis and Eedward, 2004). These are an important resource base on which the rural and urban livelihood system built on.

**Human capital:** the labor resources available to households, which have both quantitative and qualitative dimensions. Former refers to the number of household members and time available to engage in income-earning activities. Qualitative aspects refer the level of education and skills and the health status of household members.

**Social capital:** the social resources (networks, membership of groups, relationships of trust and Reciprocity, access to wider institutions of society) on which people draw in pursuits of livelihoods.

**Natural capital:** the natural resource stocks from which resource flows useful for livelihoods are derived, including land water, and other environmental resources, especially common lake resources.

**Physical capital:** physical or produced capital refers to basic infrastructure (transport, housing, water, energy, communication) and production equipment and means which enable people to pursue their livelihoods.

**Financial capital:** the financial resources available to people (saving, credit, remittances, and pensions) which provide them with different livelihood outcomes (Rakodi and Lloyd-Jones, 2002).

Firstly, the commercialization or commoditization of urban livings has important implications for the urban poor. Urban households has to pay for food, shelter, and urban services rather than depend on their own production which is common in rural areas implying the importance of generating income either directly through wage employment or through self-employment in the informal sector (World Bank, 2005). Therefore, labor is the most important asset for making a living in urban areas.

Secondly, environmental pollution and health hazards are serious manifestations of urban areas. Thus, while the poor may benefit from urban public services and the dynamics of the urban economy, poor sanitation and waste disposal, industrial and vehicular air and water pollution, poor quality housing and inadequate water supplies may endanger urban poor's health and often have serious impact upon human capital (Rakodi and Llyod-Jones 2002). But it is also important to note that some urban dwellers may depend on urban agriculture practiced in and around their house (de Haan L, 2000).

Finally, urban areas are symbol of vertical and horizontal household and individual heterogeneity in incomes and access to services and infrastructure and to economic and political opportunities, an important spot of social fragmentation. Inter- and intra-household and community networks and support may be weakened due to greater socio-economic heterogeneity and wider distributional ranges, thus poor in particular may be vulnerable to social fragmentation and lack of kin-based support and nonmarket transfers (Moser, 2005).

## **2.6. Food Security in Urban Context**

Specific aspects of food security in the urban context are, on the one hand, the necessity to obtain most of the food required by the household and, on the other, a greater dependence on the market system and on commercially processed food. Employment and income are, therefore, the main prerequisites for attaining food security in urban setting (Baumgartner & Belevi, 2001). Sustainable production, processing and production of food in and around cities and towns contribute to the goal of safe, affordable, and reliable food supply for the urban poor, and provide income and employment to a large number of poor specially women (World Bank, 2005).

There are two major forces driving people from all walks of life, particularly those on low incomes and the poor, to cultivate the city: food security and income generation. There is evidence to suggest that UA's contribution to urban food supply and household urban food security is significant and in many instances is growing (Mougeot, 2005). Growth in urban food

production depends on poverty level, household size, city lay out, access to land and water, official attitudes, and climate (Koc *et al*, 1999). Growing and processing food in cities creates a lot of employment, many thousands of part-time and full-time jobs, and has a potential to create many more. For many families it helps to reduce the economic uncertainty that comes with unemployment and employment instability, meaning there will always be food on the table (Mougeot, 2006).

## **2.7. Concept and Definitions of Food Insecurity**

Food insecurity is directly related to poverty at the global, regional, national, and local levels. Globally, about 840 million people are food insecure and/or are chronically undernourished (FAO, 1996). Food insecurity is a result of lack of income and access to food, which is driven by poverty. Global food insecurity can be addressed through a more equitable distribution and access to food. For example, if available food is evenly distributed, it is estimated that each person in the world can be assured of 2700 calories per day, which is more than 220 minimum calorie requirements for an average person. A major development challenge for Ethiopia is to reduce absolute poverty and food insecurity at acceptable environmental and economic costs. In order to tackle this problem and devise appropriate policies and institutions to meet the challenge, it is necessary to understand the relationships among natural resource management, technology, agricultural productivity and food insecurity. Ethiopia faces a rapid population growth that contributes to the environmental problem, which manifests itself in land and water degradation and loss of biodiversity caused by low agricultural productivity and high dependence on fuel wood. Soil degradation is this verse environmental problem (Paulos, 2001).

### **2.7.1. Type and Forms of Food Insecurity**

Food insecurity has both a long term and a short term aspect when viewed in time dimensions, chronic and transitory food insecurity. When a household is persistently unable to meet the food requirements of its members over a long period of time marked by a continuous and constant failure to food acquisition, it is known as chronic food insecurity. While the later, transitory food

insecurity indicates a temporary decline in food security (Debebe Habtewold, 1995). Food insecurity concerns with two elements, ability to produce enough and access to it of the people in need. It is also strongly associated with shocks that briefly push the level of food consumption below the requirements.

A household can be said to be food secured only if it has protection against both kinds of insecurity. The average access to food over the long term should be nutritionally adequate, and a household should be able to cope with short term changes without sacrificing the nutritional needs of any of its members. Recent findings have also indicated food insecurity to be associated with a third dimension i.e. the utilization aspect of what is produced (Degefa Tolessa.2002:11). Nichola (2006) described it as a situation where on average food availability is below the required level for a long time. It can be results from short-term shocks (temporary illness or unemployment among productive members of households) and fluctuations in food availability and food access, including year-to-year variations in domestic food production, food prices and household incomes, climatic shocks, natural disasters, economic crises or conflict.

### **2.7.2. Causes and Consequences of Household Food Insecurity**

The USAID policy paper (1995) entitled ‘food aid and food security’ identifies a range of factors which leads to the food insecurity of households and individuals in the developing world. These include chronic poverty, rapid population growth, declining per capita food output, poor infrastructure, ecological constraints, limited arable land, inappropriate policies, inadequate nutritional knowledge, civil war and ethnic conflicts. The actual impact of these factors on the food security status of households and individuals may be achieved through a variety of pathways. Rapid population growth, for example, may affect food security status through the impact of overcrowding on reduced per capita land availability and per capita food availability, or through its effects on environmental degradation and reduced agricultural productivity, or through its effects on sanitation and the spread of disease, which influences not only labor productivity and incomes, but also nutritional status (Riely, et.el.1999).

Food insecurity may also result in severe social, psychological, and behavioral consequences. Food-insecure individuals may manifest feelings of alienation, powerlessness, stress, and anxiety, and they may experience reduced productivity, reduced work and school performance, and reduced income earnings. Household dynamics may become disrupted because of a preoccupation with obtaining food, which may lead to anger, pessimism, and irritability. Adverse consequences for children include: higher levels of aggressive or destructive behavior, hyperactivity, anxiety, difficulty with social interactions, increased passivity, poorer overall school performance, increased school absences, and a greater need for mental health care services (e.g., for depression or suicidal behaviors). (<http://www.faqs.org/nutrition/Erg-Foo/Food-Insecurity.html>).

### **2.7.3. Causes of Food Insecurity in Other Developing Countries**

Achieving food security in its totality continues to be a challenge not only for the developing nations, but also for the developed world. The difference lies in the magnitude of the problem in terms of its severity and proportion of the population affected. Mwanki (2005) mentioned the main causes of food insecurity in developing countries. Some of them include: unstable social and political environments that prevent sustainable economic growth, war and civil struggle, macro-economic imbalances in trade, natural resource constraints, poor human resource base, gender inequality, inadequate education, poor health, and natural disasters, such as floods and locust infestation, and the absence of good governance. All these factors contribute to either insufficient national food availability or insufficient access to food by households and individuals.

A study by (Boussard and Benoit, 2005) found that 99% of the food in Sub-Saharan Africa is grown under rain fed agriculture. Hence, food production is vulnerable to adverse weather conditions. The reason behind is that there was an over decline in farm input investment including fertilizers, seeds, and technology adoptions. Other causes include rapid population growth, limited access to agriculture-related technical assistance, underdeveloped agricultural sector and lack of knowledge about profitable soil fertility management practices leading to



expansion in to less favourable lands. Barriers to market are also causes of food insecurity in Africa (Mwanki, 2005; FAO, 2005). As he mentioned some barriers of market access were poor infrastructure, market standards, limited information, and requirements for large initial capital investments, limited product differentiation, and handicapping policies (Alex, 2003).

## **2.8. Urban Agriculture and Food Security**

Empirical evidence from a sample of 15 developing countries, by use of the nationally representative household survey data, analyses in a comparative international perspective of the importance of urban agriculture for the urban poor and food insecure (Zezza & Tasciotti, 2010). Urban agriculture can be seen as a survival strategy for the urban poor during crisis periods, and contributes to household food security especially for women and elderly. Investigations carried out in the city of Hanoi, capital of Vietnam showed that urban agriculture supplies about one half of the food demand, and engages 10 percent of the urban labor force in processing and marketing, retailing, input supply, seed and seedling production (World Bank, 2005).

Many of the urban development studies in developing countries concentrate on housing, urban services, and nonagricultural informal activities (Mougeot, 2006). However, they mainly exclude or give little attention to UA; even those studies that were conducted in the area of UA, they paid attention to the environmental concerns and a little concern to all food security dimensions so that the researcher built a heartfelt aspiration to show the significance of UA in addressing the two basic dimensions of food security, *availability and access* and its converging role to the achievement of the food security goal at household and community level.

## **2.9. Global Food Security Situation**

The number of undernourished people in the world remains unacceptably high at near one billion marks despite an expected decline in 2010 for the first time since 1995. This decline is largely 17 attributable to increased economic growth foreseen in 2010 particularly in developing countries and the fall in international food prices since 2008. However, a total of 925 million people are

still estimated to be undernourished in 2010. Developing countries account for 98 percent of the world's undernourished people (FAO and WFP, 2010).

According to the World Bank, between 45 to 50 percent of the population in Sub-Saharan Africa live below the poverty line, making it the poorest region in the world. Food and Agricultural Organization (2010) reports show that approximately 33 per cent of the population in Sub-Saharan Africa is undernourished. There are 307 million hungry people in Africa, with most of these living in Sub-Saharan Africa (265 million). More than 40 percent of the population in the Horn of Africa (HoA) is undernourished and millions are food insecure (FAO, 2010).

## **2.10. Food Insecurity in the Horn of Africa**

The Horn of Africa is one of the most food-insecure regions of the world. Out of a total population of almost 160 million, some 70 million people (around 45 percent) live in areas that have been subject to extreme food shortages and the risk of famine at least once every decade over the past 30 years (FAO, 2010) . In East Africa as a whole, 42 percent of the population is undernourished, and the figures for Somalia, Eritrea and Ethiopia are among the highest in the world. Chronic undernourishment is reflected in a very high incidence of inhibiting among children in low life expectancies. Child under nutrition, especially among those aged between six and 24 months is particularly damaging in that it results in a life-long reduction in physical and cognitive abilities.

## **2.11. Food Security Situation in Case of Ethiopia**

The situation in Ethiopia is not much different from the conditions in other developing regions. For example, World Food Programme(2009) stated that the common factors that cause household food insecurity in urban areas of the country are: household size, age of household, sex of household head, marital status of household, education level of household, dependency ratio, access to credit, ownership of saving account, total income per adult equivalent expenditure level (food and non-food), asset possession, access to social services, owner of home

garden, access to subsidized food, sources of food, availability of food commodities, and supply of food commodities (MoFED, 2002).

A combination of factors has resulted in serious and growing problem of food insecurity in Ethiopia. Food insecurity is a chronic problem for about five million population of Ethiopia. The remaining constitutes a transitory food insecure, which includes temporary and cyclical food insecurity. Most of the chronically food insecure households live in 155 woredas found in Amhara, Southern people, Tigray and Oromia regions. Some 2.5 percent of the chronically vulnerable households live in Somalia National Region State (EDRI and IFPRI, 2004).

Ethiopia is the second most populous country in Sub-Saharan Africa with approximately 81 million inhabitants (World Bank, 2011). It is also one of the least developed countries in the world, listed number 174 out of 187 on the Human Development Index (UNDP, 2011). The Hunger Index lists Ethiopian food security situation as alarming, which means that the level of undernourishment, the prevalence of underweight, and the under-five mortality rate are very high (IFPRI, 2011). For basic public services such as clean water, electricity, education and healthcare, access is generally poor and quality low (Oertel, 2004), due to lack of adequate resources and facilities and the lack of administration capacity on the local level. Ethiopia also has one of 20 the lowest road densities in Africa (World Bank, 2011), further limiting accessibility, and requiring investments in infrastructure.

In Ethiopia food security is divided in two categories of the chronic food insecurity (Perceived as a result of devastating poverty indicated by a lack of assets) and acute food insecurity (more of transitory phenomenon related to man-made and unusual shocks such as drought (FDRE, 2002). According to Ethiopia Food Security Strategy of (2002) both chronic and transitory problem of food insecurity are widespread and severe in Ethiopia.

WFP (2009) in the summary of food security in selected urban centres of Ethiopia, explained that the urban areas of Ethiopia have experienced rising food prices since mid-2005, and FAO lists Ethiopia among countries 'most at risk of deteriorating food prices' and in Ethiopia Food

Security Outlook, the overall food security situation in most parts of the country is deteriorating as depleting stocks from the 2010 main ‘meher’ harvest are compounded by price increases leading to increased needs for humanitarian assistance.

## **2.12. Household Coping Strategy**

### **2.12.1. Definition of Coping Strategy**

Households adopt and develop diversified coping strategies and sequential responses through which people used at times of decline in food availability. Dagneu (1993) defined coping strategies as “mechanisms by which households or community members meet their relief and recovery needs, and adjust to future disaster-related risks by themselves without outside support”. Ellis (2000) also defined coping strategy as ‘the sequence of survival response to crisis or disasters’. According to Davies (1993), coping strategies are the package of poor people’s responses to declining food availability and entitlement in abnormal seasons or years. Likewise, Folkman and Lazarus (1980), defined coping strategies as specific efforts, both behavioral and psychological, that people employ to master, tolerate, reduce, or minimize stressful events.

### **2.12.2. Concept of Household Coping Strategies**

Different studies present a variety of different coping strategies that the households are likely to adopt when faced with food shortage. Households are not passive victims of food insecurity or drought. But, based on their capacity, every household undertakes different activities to cope with crisis and to minimize it. Thus, coping mechanisms used by farm households in rural Ethiopia include livestock sales, agricultural employment, certain types of off farm employment and migration to other areas, requesting grain loans, sale of wood or charcoal, small scale trading, selling cow dung and crop residues, reduction of food consumption, consumption of wild plants, reliance on relief assistance, relying on remittances from relatives, selling of clothes, and dismantling of parts of their houses for sale. However, this depends on and varies with the level of households’ entitlement and vulnerability to crisis. Households adopt and develop

diversified coping strategies and sequential responses through which people used at times of decline in food availability (Mulugeta, 2002).

Typically, food insecure households employ any of the four types of consumption coping strategy. First, households may change their diet (switching from preferred foods to cheaper, less preferred substitutes). Second, a household can attempt to increase its food supplies using short-term strategies that are not sustainable over a long period (borrowing, or purchasing on credit; more extreme examples are begging or consuming wild foods, or even seed stocks). Third, households can try to reduce the number of people that they have to feed by sending some of them elsewhere (anything from simply sending the kids to the neighbour's house when they are eating, to more complex medium-term migration strategies). Fourth, and most common, households can attempt to manage the shortfall by rationing the food available to the household i.e. cutting portion size or the number of meals, favouring certain household members over other members and skipping whole days without eating (Maxwell *et al.*, 2003).

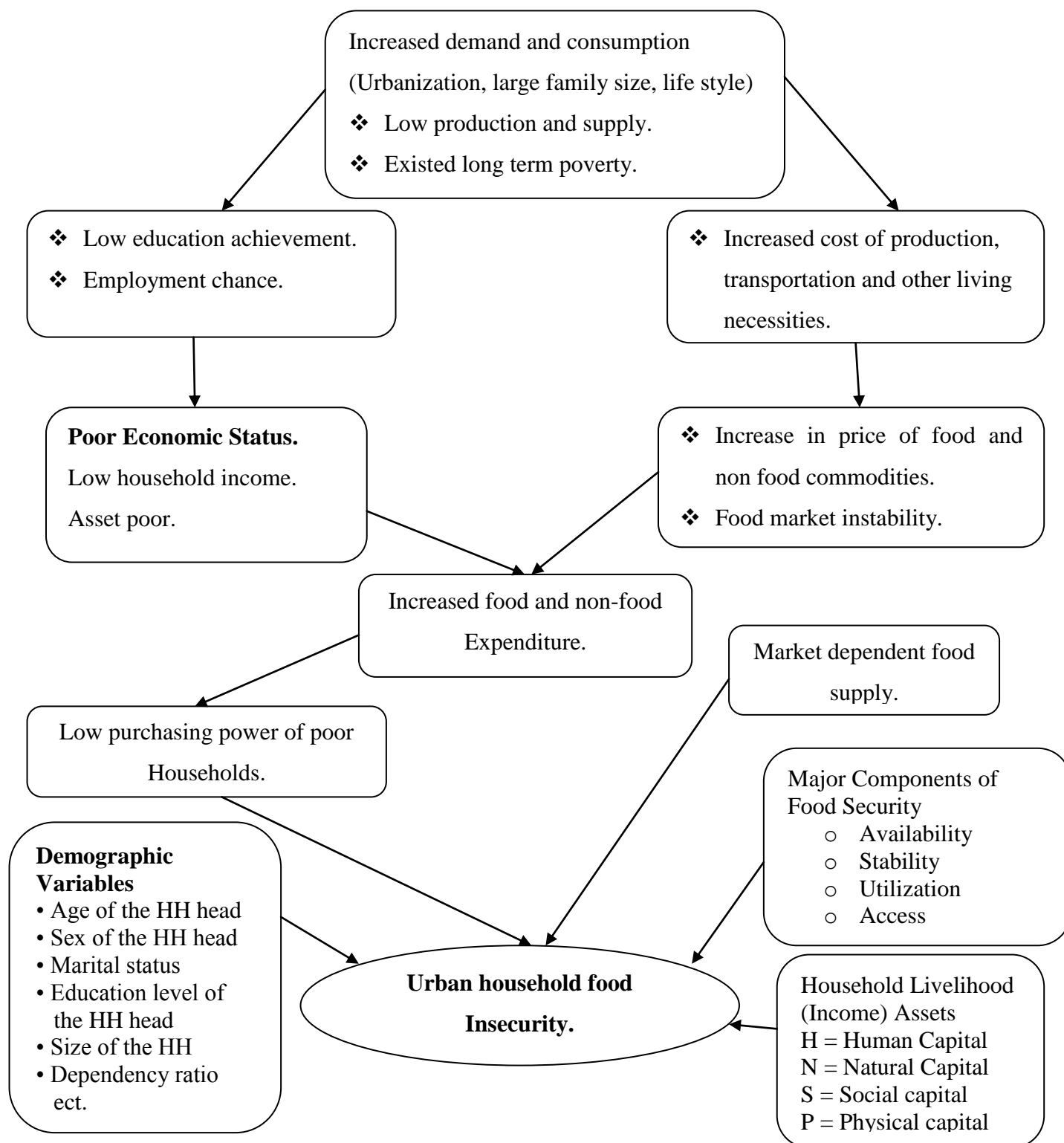
A study made in northern part of Ethiopia identified the most common coping practice that is sequentially used during food crisis. It includes reducing number and size of meals, sell of small ruminants and draft oxen, consuming wild food, borrowing of cash and/ or food from better off neighbours and/or relatives. Another less frequently used strategies were also indicated; such as postponing wedding, sell of firewood, withdrawing children from school and eating toxic or taboo food (Eshetu ,2000).

### **2.13. Conceptual Framework of Households Food Insecurity**

As presented in figure 1 and discussed earlier on, household food security is explained based on the indicated four dimensions that are generally essential for food security. The below analytical framework shows that though it is not sufficient to guarantee urban household food security, one of the most important determinant dimensions is the availability of food. In turn, the main determinants of food availability at the urban household level are access to home production (urban agriculture), access to formal and informal transfers, and food aid. Physical access to food is considered as the other dimension that can influence food security.

Household food security refers to the ability of the household to secure, either from its own production or through purchases, adequate food for meeting the dietary needs of all members of the household (USAID, 2004). Economic access to food is the third dimension of food security. This refers to the ability of the households to purchase food that they require. It is the most important dimension for urban residents. Purchasing power of households, income and food prices are the key determinants of this dimension. Therefore, households purchasing power in general and status of employment & amount of income, food market-price, nature of labour market, human capital, macroeconomic- policies (e.g. market policy) and saving potentials of households in particular are the main determinant factors of households economic access to food.

Figure 1: Analytical framework to understand urban household food insecurity



Source: Adapted from Teng and Escaler (2010) with major modifications of the investigator.

Food utilization is also the other dimension of food security. It refers to the appropriate use of the available food. A household may have the capacity to purchase all the food it requires but it may not always have the ability to utilise that capacity at fullest. The utilisation dimension is largely influenced by a range of urban infrastructure and social services. Households access to safe drinking water, adequate sanitation, knowledge of food preparation, quality of dietary intake, general child care and feeding practices, and the conditions of health of household members are among the main determinants of the utilization dimension of food security. So, poor urban infrastructure and services are identified as one of the basic issues in influencing the utilisation dimension of food insecurity.

Stability or sustainability refers to the temporal dimension of nutrition security (i.e. the timeframe over which food security is being considered). In much of the food security literature, a distinction is drawn between chronic food insecurity the inability to meet food needs on an ongoing basis and momentary food insecurity when the inability to meet food needs is of a temporary nature (Maxwell and Frankenber, 1992).



### **3. RESEARCH METHODOLOGY**

This chapter starts by presenting and illustrating the different aspect of the research methodologies. It also analyze the detailed methodologies that were followed to conduct the survey such as description of the study area, demographic features, research design, data source, sampling techniques, methods of data collection and analysis.

#### **3.1. Description of the Study Area**

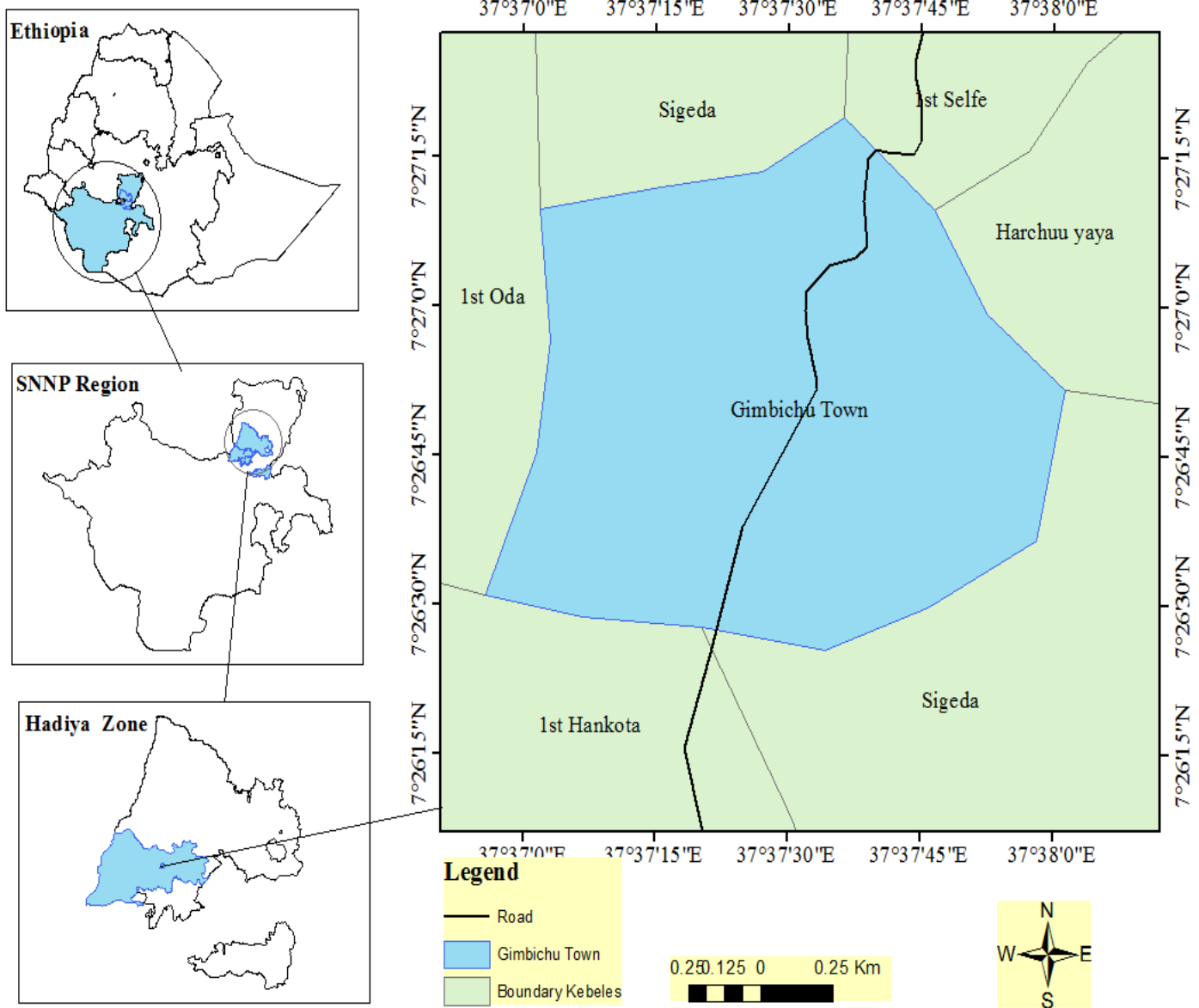
##### **3.1.1. Location, Area and Altitude**

Gimbichu town is located west of Hossana Town that is the Zonal capital town for Hadiya Zone and it is the administrative town for Soro Woreda. It is located at a distance of 32 km from Hossana town. Gimbichu town was established in 1932 and covers 1160 hectares of land. It is one of the newly growing towns in Ethiopia even if it was established a long time ago. The name Gimbichu or Gimichu came from a cave or building, which refers the place admit defeat or built or favourable area to live (Gimbichu Town municipality, 2013). The name of the town was changed from Harigossa to the north and Fatte to the south part of current location of the town during the HaileSELLASE regime and at this time after establishment of the town as an administration town elementary education centre was opened in 1937 by the name known as Gimbichu secondary school and this strengthened the growth of the town.

The town is one of the few favoured towns of its time as it had municipal administration and master plan in 1980. Owing to its strategic location, it has been serving as administration, transportation and commercial centre of Soro Woreda. Gimbichu Town has three clusters and now the town is expanding outwardly and included certain farmers' kebeles such as Siggeda in the east and west and 1<sup>st</sup> Hanikota in the south direction (Gimbichu Town Municipality, 2013). Even though, there are a lot of infrastructures that should be fulfilled by the municipality the dwellers suffer from shortage of a lot of infrastructure since its origin. The average elevation of the town is 2060 meters above sea level

Geographical location of Gimbichu Town is  $7^{\circ}26'15''$  N- $7^{\circ}27'30''$ N latitude and  $37^{\circ}36'0''$  E- $37^{\circ}38'0''$  E longitude. (Gimbichu Town Municipality, 2013).

Figure 2: Study area map



Source: Ethio-GIS, 2014.

### **3.1.2. Climate**

Gimbichu has a Sub tropical highland climate (Woina dega) with 25<sup>0</sup>c annual temperature and 1062 mm annual rainfall. It is highland elevation moderates temperatures year round as a result the town's position being found within the tropics does not cause extremely high temperatures and the regularity of rainfall and relative location that means the town is located between two rivers and the foot of the hill lands that regulates the temperatures to some extents. The town has supposed annual precipitation of 1062 millimetre (Gimbichu Town Municipality, 2013). The landscape of the town area and its surrounding is relatively gently sloped and slightly rising and falling plain.

### **3.1.3. Demographic Features, Religion and Ethnic Composition**

The total population of the Gimbichu town is 25000 (50.53% male, 49.47% female) in which 1998 are headed by male and 273 are headed by female households. The family members in both households are 12633 males and 12367 females. The average family size was 7. According to 2007 census conducted by Gimbichu town municipality, the town is generally characterized by rapid population growth with a growth rate of 4.4% (CSA, 2014).

Religious activities practiced in the study area include Christianity with different denominations like Protestant, Orthodox, Adventist, and Catholic. Islam and indigenous beliefs are also being practiced in the woreda. The major ethnic group of the town is the Hadiyya (74.4%), followed by kambata (11.2%), Amhara (8.8%), Siltie (3.2%) and Guraghe (2.4%) (CSA, 2009).

### **3.1.4. Social Services in the Town**

Regarding the social service, the education coverage while compared to other town of the woreda, Gimbichu is relatively good. There is one high school from grade 9-10 and one preparatory school and four primary schools. The all-weather road is from Hosaina to Gimbichu Town which is 32 Kms. Hydroelectric power supply is available in Gimbichu town. The main

source of water for human and livestock consumption are piped, communal tap (Bono) and wells (Soro woreda finance economic & development bureau, 2006).

### **3.2. Research Design**

In order to assess the attitude of the respondents on situations of household food insecurity and coping strategy in the study area. Survey research design and a cross-sectional research design were specifically used due to the necessity to take the data for one time.

The survey research design was best suited for this study because its objective is to see a general picture of the population under investigation, describe the nature of existing conditions, or determine the relationships that exist between specific variables or events. According to (Mugenda and Mugenda, 2003), a survey research determines and reports the way things are, and attempt to describe possible behavior, attitude, values and characteristics of such things. This made it possible for the researcher to produce statistical information on the factors affecting the food insecurity situation and their coping strategies in the study area.

### **3.3. Sources of Data**

In this study both primary and secondary sources were used to collected data. Primary data were collected through household survey (questionnaire), interviews, focus group discussion and personal observation. Secondary data were collected from the published and unpublished documents such as reports, articles and assessments from Gimbichu town administrative office, rural and agricultural development office, municipality and non-governmental offices. Secondary data are useful because they help to supplement primary data in a research.

### **3.4. Sample Size and Sampling Technique**

Sample size was determined and sampling technique was used to select the representative sample from the total population under study. This is because without using proper sampling technique,

it may be difficult to include the whole sampling population as a sampling frame. If sample size is too small, the objectives of our analysis may not be addressed exactly. So that appropriate sample size has to be applied in order to get good representative data. Kothari, (2004) defined a sample design as a definite plan for obtaining a sample from the sampling frame.

Gimbichu town has only three kebeles which are all included in this study. The investigator used data in which names of the poor households were recorded in the three kebeles by the Gimbichu town municipality. There were households who were not registered and the researcher included them in the list in cooperation with administrative workers. Then, the total number of the poor households of the three kebeles was known, and categorised in groups based on their respective kebeles.

According to CSA (2007), the study area has three kebeles comprises 2271 households heads. The total poor household heads registered by the municipality were 250. Hence, to calculate the sample size of the households, the study applied Slovin's formula, simplified by Yamane (1967).

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

Where; n is the sample size,

N is the population size (total poor household size), and

e is the level of precision.      N=250 e=0.06

Poor household heads were selected using systematic random sampling from the list registered by municipality.

Thus,  $k = N / (50\%N - 10)$ ; Where N is total poor households head and k is random number.

$N = 250 / 125 = 2$ . Moreover, samples were taken at regular interval based on the list. Starting from the random start number, every 2<sup>nd</sup> in the list of numbers of poor households was the number of the sample.

Table 1: Sample size distribution.

No	Gimbichu	Total HHs	Group target pop	Number Poor HHs	Sample size	Sampling Techniques	Sample %
1	01-kebele	985	Poor HHs	94	47	Systematic random sampling	50%
2	02-kebele	688	Poor HHs	82	41	Systematic random Sampling	50%
3	03-kebele	598	Poor HHs	74	37	Systematic random Sampling	50%
Total		2271		250	125		

Source: Hadiya Zone, Soro Woreda, Gimbichu town kebeles Administrative Offices, 2014

Finally, the sample size is 125 respondents and same were used for questionnaires.

### 3.5. Instruments of Data Collection

Different researchers have been using diverse instruments for qualitative or quantitative methods. They can also employ mixed instruments when using those methods at the same time based on their research or study at hand. Therefore, for this study both qualitative and quantitative research methods were used to collect the data. The study was designed to carefully and adequately gather primary data making use of questionnaire, key informant interview, focus group discussion and field observation. As well, the secondary data were collected through content or document analysis.

The instruments used for this study were the main approach employed for seeking knowledge of poor households and other responsible governmental officials and key informants regarding the study objectives. They were employed because the research needs soliciting opinions, perceptions and views of households, governmental officials or administrators, and other key informants. Data collection instruments were used with the aim of assessing the general situations of food insecure households, and coping strategies. The researcher also provided a

great understanding of realities regarding the research problem through interesting dialogue between the researcher and respondents. Moreover, data collection instruments that were used in this study are; questionnaire, key informant interviews, focus group discussion, and field observation.

### **3.5.1. Questionnaire**

Questionnaire was used as a primary instrument to collect primary data from the selected sample households from three kebeles. In this research, the investigator prepared open and close ended questionnaire for the sampled respondents. Therefore, all information about food insecurity was obtained from the head of household at origin. Data regarding demographic characteristics, socio-economic status, house and other household assets were collected using questionnaire. In addition, the households' food insecurity coping strategies like: meal, saving and credit services were also gathered using this instrument.

### **3.5.2. Key informants interview**

The researcher has conducted in-depth interview with the selected key informants to get deeper information on the situations of food insecurity in Gimbichu town. Semi-structured interview was used. This is because semi-structures interview questions are flexible and can clarify the issue when ambiguity has occurred. Key informant interview was administered by the researcher to generate information on food insecurity, characteristics of the food insecure urban households, coping strategies, and measures to be taken to ensure food security in the study area. The key informants for interview were selected from; kebele administrative council, NGO, woreda agriculture and rural development head and Gimbichu town administrative officers. The investigator interviewed 12 individuals that have been purposively selected because of their knowledge and experience about the food insecurity and copying strategies in the study area.

### 3.5.3. Focus group discussion (FGD)

The focus group discussion was used as one of the critical sources of primary data in addition to the questionnaire and key informant interview. Focus group discussion is useful for group interactions, which enables the participants get a chance to discuss the idea and share their information in relation with the intended objectives. Focus group discussion helped the researcher to get data on views and opinions of participants concerning causes and consequences of food insecurity, coping strategies, measures to be taken to improve the problem of food. Researcher attempted to interview issues concerning food insecurity, households demography and life history, number of meal per day, and coping strategies. This was helped to cross check the information collected through other methods. The researcher has selected purposively and interviewed 13 respondents from the three kebeles. These respondents were grouped into two clusters. The first group consisted of 2 kebele elders, 2 Edir leaders and 2 religious leaders. The second group comprised 3 kebele elders, 2 Edir leaders and 2 religious leaders. The 13 respondents were selected on the basis of their knowledge about the people living the study area.

Table 2: Sample respondents of key informant interview and focus group discussion.

No	Profession	Key informant interview	Focus group Discussion	Sampling Techniques
1	Kebele administration officials	3		Purposively
2	NGO	4		Purposively
3	Woreda Agriculture and Rural Development head	2		Purposively
4	Gimbichu town administrative office	3		Purposively
5	Kebele elders		5	Purposively
6	Edir leaders		4	Purposively
7	Religious leaders		4	Purposively
	Total	12	13	

Source: Field Survey, 2014.



#### **3.5.4. Field observation**

Observation plays a vital role in providing first-hand information and it enables to get an in-depth data concerning the issue under investigation when it is critically observed and recorded. Therefore, the researcher employed observation to identify the living, housing, type of work, and other conditions of food insecurity situations and their coping strategies among urban poor in Gimbichu town. Observation entails the systematic noting and recording of events, behaviours and the like in the social surroundings by using written checklists. It gives more detailed and context-related information and permits collection of information on facts not mentioned in an interview. It also permits the reliability of responses to the questionnaires filled by the respondents.

### **3.6. Method of Data Analysis**

Depending on the nature of the problem and the data collected, different statistical methods were employed in this study for data analysis and interpretation. This study used both qualitative and quantitative data analysis techniques. The responses from key informants, FGD, and non-participant observation were analyzed and presented through description, narration and interpretation in order to supplement the quantitative data. The quantitative data were processed and organized into simple statistics by using basic Statistical Package for Social Sciences (SPSS) Software and Microsoft office Excel. The quantitative data were analyzed using descriptive statistics such as table, frequency, percentage, and figure. The analysis and results were interpreted and presented based on the objectives of the study.

The researcher has followed different steps when processing the data. First, before making the analysis, the data was edited. Editing was done to detect errors and omissions and to correct them. Secondly, coding was employed by assigning numerals or other symbols to the data so that responses can be put into limited number of categories. Thirdly, data were classified using a common characteristics to one class and the entire data were divided into a number of categories. Finally, the arranged data were processed in the form of statistical table for analytical purposes or interpretation.

## **4. RESULTS AND DISCUSSION**

In this chapter, the writer attempted to interpret the data gathered from sample household heads, key informants and focus group discussion by employing questionnaire and semi-structured interview respectively. Additionally, some relevant data gathered through field observation have been incorporated. Efforts were made to display the data by using tables, bar graphs and pie charts. Finally, the researcher has tried to support the results with relevant local studies.

The chapter is divided into four main sections. The first section presents descriptive statistics on variables relevant to the analysis such as demographic and socio-economic characteristics of the sample households. In the second section, the results showing urban household food insecurity situation are presented and discussed. This is followed by the results on the factors affecting urban household food insecurity in the third section. The fourth section includes the results on the coping strategies employed by the households against food insecurity in the study area.

### **4.1. Demographic and Socio-economic Characteristics of the Respondents**

#### **4.1.1. Family Size of the Sample Respondents**

The family size was classified into four levels based on the number of the family members in the household: small size (1-3), medium size (4-6), large size (7-10) and very large size (above 10). As shown in Table 4, large family size is with highest frequency of 62 (49.6%) where as the very large family size constitutes the least frequency of 9 (7.2%). Most households in the study area have large family size. Households with larger family size were more likely to be food insecure situation. This statistics show that more than half of the households have large family sizes. And the family size adversely affects food security position, as family size increases. This increase incidence of food insecurity with increase in family size confirms the result of the table above data.

Table 3: Status of the household's size

Family size of households heads	Frequency	Percent
Small Size(1-3)	11	8.8
Medium Size(4-6)	43	34.4
Large Size(7-10)	62	49.6
Very Large Size(Above 10)	9	7.2
Total	125	100.0

Source: Field Survey, 2014.

Household size has an impact on the food insecurity situation at household level in the study area. This variable has significant relationships with food security. Household size, that is, the number of individual members of a household, is a variable used by many practical studies to see how it affects food insecurity at the households. It has been hypothesized that as the family size increases; there is the probability of the household to be food insecure. Therefore, household size is an important demographic factor which determines the household food insecurity situation in the study area.

Table 4: Household size distribution

The household size	Frequency	Percent
1	6	4.0
3	5	3.2
4	7	5.6
5	18	14.4
6	18	14.4
7	24	19.2
8	15	12.0
9	18	14.4
10	5	4.0
11	5	4.8
12	2	2.4
13	2	1.6
Total	125	100.0

Source: Field Survey, 2014.

As shown in Table 4, the minimum and maximum household sizes were found to be one and thirteen respectively. The average number of persons in the household was 7 as the mean value shows. The total numbers of persons in the 125 households were 852. Majority of the households (24(19.2%)) had 7 family members. Following this statement, the majority of the households would be considered to be less food insecure as they had 7 or less than the mean members and the lowest frequency was 13 which were repeated 2 times (1.6%) respectively.

#### 4.1.2. Age and Sex Structure of the Sample Respondents

##### 4.1.2.1. Age structure of sample respondents

To identify the age of the respondents, the researcher tried to categorize them into different age groups. As shown in Table 5, the highest number of the respondents were found between the ranges of 36-50 (41.6%), followed by 51-64 (33.6%) and 20-35 (12%). Based on this and the finding reached, significant numbers of respondents were in the age ranges of 36-64 years. With regard to the is > 64 (older age) categories that are above 78 years of age, the data showed nearly 2.4% households.

Table 5: Age distribution of household heads

The age of HHs heads	Frequency	Percent
20-35	15	12.0
36-50	52	41.6
51-64	42	33.6
65-77	13	10.4
>78	3	2.4
Total	125	100.0

Source: Field Survey, 2014.

Age is a descriptive variable that may vary among the household heads. In most urban households, more responsibilities are given to the head of the household. So, the head age is important with regard to availability of the required food for survival of the family. The case is

severe when the head of the family is aged. Since the old urban household heads are unable to work hard for the survival of his family members, the family leads life without adequate food supply.

Examining the age distribution of respondents was helpful to understand the different coping and survival strategies pursued by the poor. That is, choice of livelihood strategy was affected by the age of an individual because age can be a factor which determines one's participation in the labor work. This is, because elders may not be able to take part in multiple and different jobs in times of harsh economic times. Hence, researchers such as Ejigayehu (2011) and Abebaw (2006) had showed this finding in their studies. These results tell that there is a directly relationship between food insecurity and age of household heads.

#### **4.1.2.2. Sex structure of the household heads**

As depicted in Table 6, the survey result indicated that the total sample households for this study were 125 household heads. Of these, 93(74.4%) of the respondents were male-headed and the remaining 32(25.6%) were female-headed. As the study indicates the number of male-headed households is relatively higher than that of the female-headed households. In view of this, an attempt was made to assess the different status of food insecurity situation that existed between men and women headed households. And as compared to women headed households, men headed households are more likely to be in food security especially in developing countries like Ethiopia. With regard to gender of household head, male-headed households have lower incidence of food insecurity than female-headed ones, i.e., 74.4%, and 25.6% respectively.

Table 6: Distribution of sample households by the sex of the household heads

The respondents of sex	Frequency	Percent
Male headed households	93	74.4
Female headed households	32	25.6
Total	125	100.0

Source: Fieldwork, 2014.

This is an important variable for the study of household food insecurity. The economic and social roles of women in the study area were different from that of men. Women did not actively participate in daily labor and trade activities which were seen as the backbone for survival of the poor urban households in the study area.

In addition to this, according to the key informants, the major causes of food insecurity in Gimbichu Town are the gender differences between male and female households due to the imbalance of work values or salaries with values of commodities also cultural values or dominant by male households. Based on the result of group discussion, male-headed households were in a better position to pull labor force than the female headed households. Therefore, male headed households were more likely to be food secured than female headed households. This finding is supported by Abebaw, (2003), Tesfaye, (2005) and Yilma, (2005) who stated that, the household head sex is directly related to food security position.

#### 4.1.3. Marital Status of the Household Heads

Table 7: Marital status of household heads

Marital status of household heads	Frequency	Percent
Single	5	4.0
Married	94	75.2
Divorced	10	8.0
Widowed	16	12.8
Total	125	100.0

Source: Fieldwork, 2014

As the statistics in Table 7 shows, the married (with highest percentage), widowed, divorced and single comprised 75.2%, 12.8%, 8% and 4% of the total sample population respectively. The result obtained regarding marital status of the household heads shows that the majority of the sample households were married. The other socio-demographic variable considered in this study was the marital status of the household heads. The reason behind this as the key informant interview showed that , there are a numbers of women's without husband died or missing

because of the migration of the male from Gimbichu town to inside and outside of Ethiopia especially to South Africa and Middle East. And, FGD responses indicated that, the marital status of the household has social implication, like various social problems resulted from divorce and having its effect on the status of the household food insecurity.

#### 4.1.4. Educational Status of Household Heads

As depicted in Table 8, the educational qualifications of the respondents are categorized into illiterate or cannot read and write, primary education or grades (1-8), secondary education or grades (9-12), and above grade 12. Most household heads in the survey were found to be in below secondary cycle education 71.2%. It was exposed that households headed by illiterate persons were more vulnerable to food insecurity followed by primary and secondary school. The category that consists of the highest number of individuals is primary education (29.6%) followed by secondary education (16%). Financial constraints also contributed greatly to the lack of education. But the major reasons for low and poor educational background here are financial problem and lack of awareness about education. The prevalence of food insecurity decreases as households education status improved i.e. Literate household heads has lower prevalence of food insecurity and is higher for illiterates.

Table 8: Educational status of household heads

Education status of HHs	Frequency	Percent
Cannot read and write	52	41.6
Grades 1-4	19	15.2
Grades 5-8	18	14.4
Grades 9-10	13	10.4
Grades 11-12	7	5.6
Above grade 12	16	12.8
Total	125	100.0

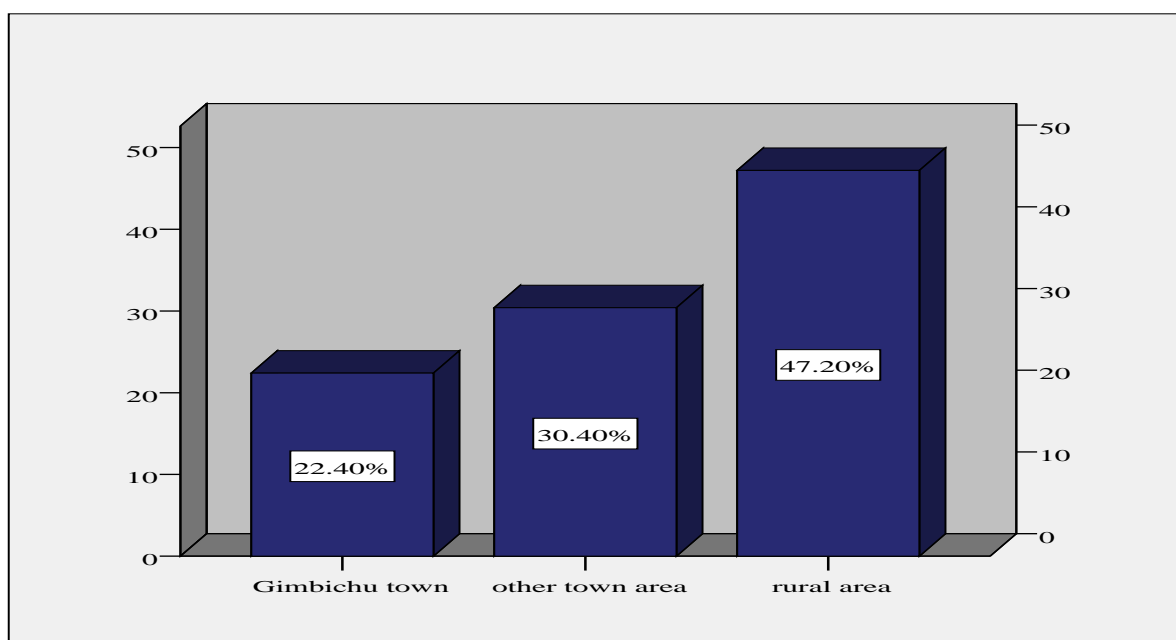
Source: Fieldwork, 2014

Education equips individuals with the necessary knowledge of how to make living. Literate individuals are very motivated to get information and use it. According to kidane *et al.* (2005), education is found to have a significant and positive relationship with household food security. The position of the families for instance diverting to other income generating activities besides poor urban household in the study area can indicate the households with relatively better education. These households are more likely to be food secured than those headed by uneducated households.

#### 4.1.5. Birth Place of Household Heads

The following bar graph shows the relationship between the respondent households birth place and food insecurity. The birth backgrounds of the respondents and their corresponding food insecurity have been indicated.

Figure 3: Birth Place of the respondents



Source: Fieldwork, 2014



Most of the respondents 59 (47.2%) were born in rural areas, 28 (22.4%) of them in Gimbichu Town whereas 38 (30.4%) were born in other urban areas (Figure 3). It shows the rate of migration from other areas of Ethiopia to Gimbichu Town. Currently in Ethiopia, there is high inflow of people from rural areas to the urban centers because of roads and transportation facilities, better infrastructures, living conditions, more employment opportunities and availability of social and public institutions in urban areas. The population of the town showed a significant increment from time to time caused by high population growth and rapid rural-urban migration.

#### 4.1.6. Employment Status of Household Heads

As Table 9 shows, about 32.8% of the respondents were employed at the time of the survey while approximately 57.6% were unemployed, and 9.6% are pensioners. Households with larger unemployed were more likely to be at risk of becoming food insecure. Urban households' livelihoods are generally greatly dependent on employment outside the home, and much more so than rural households. Source of income and employment are more diverse in urban areas. Household members tend to have education and training and are, therefore, able to collectively undertake a wider range of unskilled, semi-skilled and skilled jobs.

Table 9: Employment status of respondents

Employment status of respondents	Frequency	Percent
Employed	41	32.8
Unemployed	72	57.6
Pensioner	12	9.6
Total	125	100.0

Source: Fieldwork, 2014.

Those who are referred as the employed in this study are those who are engaged in income generating activities including self-employment. On the other hand, the unemployed are those who are without any kind of job or not engaged in any income generating activity.

As depicted in Table 9, most respondents were unemployed. This in turn results in food insecurity. Key informants respondents indicated that, the employment is one of the major sources of cash income, and the ability to earn cash income is an especially important determinant of urban household food security. Similarly, FGD responded that, unemployment leads to food insecurity. Contrary to this, the access to employment help to diversify and increase amount of income received by households and to keep food security.

#### 4.1.6.1. Sector of employment of the household heads

The following table indicates the employment of worker in different organizations. The form of employment may be governmental, nongovernmental or private.

Table 10: Distribution of households by sector of employment.

Sector of employment of household heads	Frequency	Percent
Public sector	10	24.39
NGO	10	24.39
Self employment	21	51.21
Total	41	32.8

Source: Fieldwork, 2014.

As Table 10 indicates, self-employment takes the largest share in providing employment for respondents in the study area. About 51.21% of the respondents are self-employed, 24.39% serve in public sectors and 24.39% work in non-governmental organizations. This can be an indicator for the unavailability of jobs and employment opportunities. As a result, the people run their own business to generate income. For instance (Guled, 2006), indicates that self-employment for the poor may be a route out of unemployment. The majority of the self-employed are likely to come from the least educated segment of the labor force and are unlikely to get wage offers that would make employment feasible (MoFED,2010).

Majority of the respondents indicated that they relied on casual employment. They have to wake up every morning and walk to town in search of these casual jobs. As result has indicated, most of the respondent's food insecure are self-employed household heads in the town.

#### 4.1.6.2. Distribution of household heads sector of self-employment

Different literatures indicated that the limited employment opportunities in urban areas have compelled the labor force to be engaged in low income generating activities. In this study, those who have been claimed to be self-employed are engaged in these small businesses.

Table 11: Distribution of households heads by sector of self-employment

Self-employment of activities	Frequency	Percent
Petty trade	8	38.09
Trade	5	23.80
Selling local food and drinks	4	19.04
Hand craft	2	9.52
Casual worker	2	9.52
Total	21	100

Source: Fieldwork, 2014.

The data in Table 11 show, out of the total self-employed respondents, 23.8% were engaged in trade and cooperatives and operating cafés, beauty salon and barber services. Based on the data, 38.09% has been engaged in petty trade in their miniature or small retailers. In addition, 19.04% of the respondents were engaged in selling local food and drinks such as enjera, tella, teji and areki. The table has also indicates that 9.52% of the respondents are workings in small enterprises specifically the handicraft technology. The people in this group produce pottery, handmade clothes like 'Netela', 'Gabi'. Moreover, two individuals 9.52% are casual workers.

The large difference between the engagements of the food insecure households in this subdivision may be due to the attitude of the society towards such jobs; the food insecure

households are not running such business. This study finding is supported by World Bank, (2005). Urban households have to pay for food, shelter, and urban services rather than depend on their own production which is common in rural areas implying the importance of generating income either directly or through self-employment in the informal sector. Therefore, labor is the most important asset for making a living in urban areas.

#### 4.1.7. Income Status of Household Heads

In this survey, an attempt was made to collect household income level for the last 30 days prior to the survey period to see whether there is a relationship between income level and food insecurity situation. The sampled household heads were asked on the amount of income earned during the last month from all sources. As in Table 12, the distribution of income among household heads shows that the majority of the respondents (33.6%) earn 501-1000 birr followed by 31.2% that earn less than 500 birr per month. On the contrary, more than 64.8% of sample households earned an average monthly income less than Birr 1000 while 35.2% of the sample households earned an average monthly income greater than birr 1000.

Table 12: Distribution of households by income group (Income category per month)

Income of household heads	Frequency	Percent
<500	39	31.2
501-1000	42	33.6
1001-1500	21	16.8
1501-2000	15	12
2001-2500	4	3.2
2501-3000	2	1.6
>3000	2	1.6
<b>Total</b>	<b>125</b>	<b>100</b>

Source: Fieldwork, 2014

Income plays a significant role in the economic and social well beings of people and the income earning potential of a person is highly influenced by the knowledge and skills available. It is very difficult to create association between different socio-economic variables and income of the

households. However, in this study, an attempt has been made to make poverty analysis based on income and expenditure of the households. Living in a city means living in a monetized economy, where cash must be generated to survive. Income is a determinant of household expenditure since it serves as the budget constraints to the amount that can be spent within a period. There is also bound to be correlation between income and food security status of a household, all other things being equal. Logically, income security is also crucial to food security for urban dwellers. Yet with little human or financial capital, the poor are forced to take casual, insecure jobs. These jobs often experience seasonal ups and downs, just as in rural areas.

Table 13: Distribution of households by main source of income

Main source of income	Frequency	Percent
Salary	37	29.6
Own business	52	41.6
Pension	23	18.4
Help from relatives	3	2.4
Renting a house	5	4
Remittance	5	4
Total	125	100

Source: Fieldwork, 2014

As indicated in Table 13, the majority of the respondents rely on income generated from their own business, 41.6 % of the respondents stated that own business is their source of income, followed by salary as a main source of income, 29.6% and 18.4% of the respondents get their earning from pension. It is pointed out that own business is the major source of income in the study area. This is because a large number of food insecure households are engaged in small business. The major source of income is different among the food insecure and other households. Majority of the food insecure households state that they obtain their income from their own business.

The above Table indicates that the share of the food insecure households engaged in the informal sector is higher. This may indicate that the food insecure households have limited access to formal employment opportunities. It has already been indicated that the informal sector is seen as a way out of poverty for those who otherwise would become unemployed. As it has

already been shown, the majority of those who are running their own business are involved in the informal sector. More food insecure households, hence, are engaged in low paying informal jobs and are generating their income from their own business.

#### 4.1.8. Households Size for the Last Five Years

According to Table 14, household family size, 93 (74.4%) increased, 5 (4%) decreased and 27 (21.6%) no change. Out of the total 125 the food insecure households, 93 (74.4%) increased, this indicates the growth rate of population has shown increment in the study area. In a similar way, the key informant interview responses implied that the number of population in Gimbichu Town is increasing highly from time to time. There are many factors for the increasing population size in Gimbichu Town. These are: searching for work opportunities, shortage of farm land in rural area due to large family size, to get social services in the town such as health centres, schools and having high ambition to life quality for better to rural areas.

Table 14: The status of sample household heads family size for the last five years

For the last five years household size	Frequency	Percent (%)
Increased	93	74.4
Decreased	5	4
No change	27	21.6
Total	125	100

Source: Field Survey, 2014.

Household size has reciprocal links with food insecurity at household level. Table 14, indicates for the last five years that the household size has exceedingly increased in the three kebeles of Gimbichu Town. The main contributing factors are lack of family planning strategies and high rate of rural-urban migration.

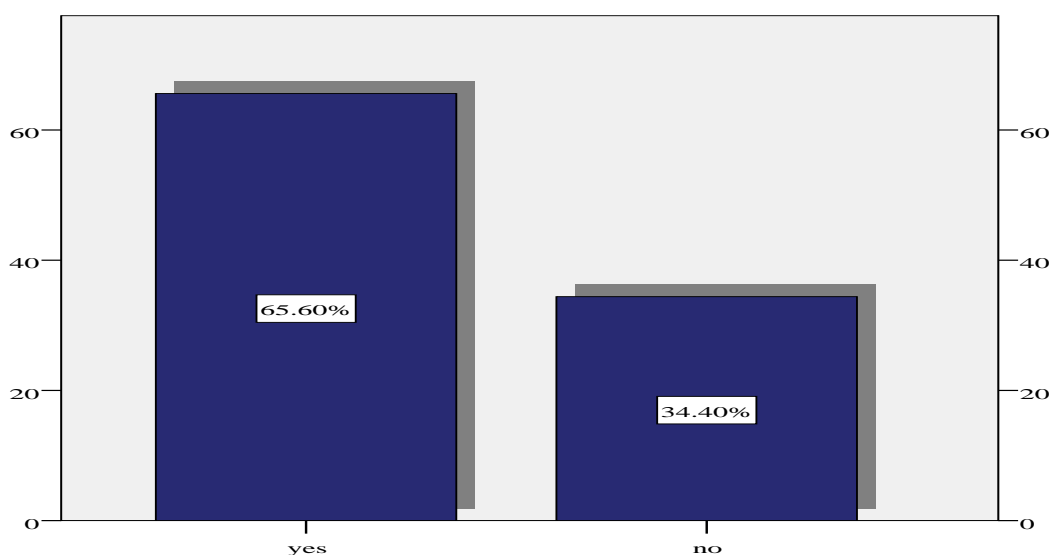
Likewise, FGD responded that the increase in the household size can bring about food insecurity and adversely affect their coping strategies in urban setting. According to, World Food Programme (2009), household size is one of the common factors that cause household food

insecurity in urban areas of the country. Therefore, for the last five years, the increasing household size is assumed to have had opposite relationship with food security.

#### 4.1.9. Health Status of the Household Heads

As Figure 4 depicts, 65.6% of the respondents faced health problem while the rest 34.4% did not experience this problem. Among those food insecure household heads, 65.6% have faced health problem at least once in a specified time. The number of respondents who faced health problem is higher among the food insecure households. Because of food insecurity people were exposed to different diseases.

Figure 4: Occurrence of illness household heads.



Source: Field Survey, 2014

However, as the key informant a response indicates that the people were able to using the health services when they suffered from diseases which could happen because of food insecurity. So, a number of individuals at Gimbichu Town were faced by different diseases. Thus, health factor was one of the main challenges to access food at household level in the study area. And FGD's responses also indicate that, food accessibility can affect household member's health. Using

traditional medicines and un-affordability of health extension program as planned by the responsible bodies and low level of awareness can lead the households to food insecurity.

Human capital refers to the skills and knowledge set, good health and the labor capacity important for the household to pursue different livelihood strategies. Regarding human capital, data was collected on educational status of household head and health status of household members. Health problem is the other pressing factor which determines household food availability. Poor health status, poor sanitation and poor nutrition have a major impact on household food availability. Respondents were asked whether any family member has faced any health problem in the past 12 months (prior to the time of conducting the survey).

#### **4.1.10. Housing and Access to Basic Services of Household Heads**

Asset ownership is one of the indicators for household well-being. Based on Table 15, the data collected from households about house ownership assured that insecure household head has little or no capacity to own a house. As table 15 shows, only 15.2% of the total surveyed respondents owned house and 84.8% of the total surveyed population did not. It is worth mentioning that house ownership is lower for food insecure household heads. This goes in line with the concept that food insecure households have limited access to ownership of assets.

Table 15: Distribution of households by house or resident home ownership

Home ownership	Frequency	Percent
Yes	19	15.2
No	106	84.8
Total	125	100

Source: Field Survey, 2014.

Housing shortage was a major problem in Gimbichu Town as more than 84.8% of the surveyed population does not own a house. They live in either a house rented from kebeles, or private owners.



In urban context, housing can be considered as the most essential physical capital. In this study, it was found important to assess whether there were differences in house ownership food insecurity and its implication for the living condition of the households. For the urban poor, housing is more than just shelter; it is also source of income by renting rooms or running domestic businesses (Rakodi and Lloyd-Jones 2002, Moser, 2005).

Table 16: Distribution of households by owner of rented house

Owner of rented house	Frequency	Percent
Kebele	87	69.6
Rented from private owners	25	20
Public rental house	13	10.4
Total	125	100

Source: Field Survey, 2014.

Table 16 depicted, that the majority of the population (69.6%) in the study area live in houses rented from kebeles, 20% live in houses rented from private owners and 10.4% live in public rental house. This study finding is supported by World Food Programme (2009), identified not owning house in Towns and cities aggravates food insecurity.

Figure 5: Housing Conditions of food insecure house owners in Gimbi Town



Source: Field Survey, 2014.

The respondents said their house walls were made of mud because it was naturally available and less expensive compared with stones and bricks. As the key informant interview respondents indicated, the Gimbichu poor urban households were either homeless or live in sub-standard dwellings which lack basic amenities such as water, energy, and proper latrine settlement sites with dominantly poor inhabitants that are geographically located in unsafe parts of the town. As also FGD's response indicated, the house ownership status of the sample household head is expected to have positive relationship with food security status of the households. And this study finding is related with finding of MoFED (2002) that claimed among contributing common factors for household food insecurity in urban areas of the country are: ownership of house and saving account, total income per adult equivalent expenditure level (food and non-food).

Water is also one of the natural elements which is basic to all organisms. It serves as a food directly and used for washing, cleaning, cooking, dinking and growing crops. Access to sufficient amount of water for human being is considered as one of the determinant factor for household food insecurity.

Table 17: Distribution of households by source of drinking water

Source of drinking water	Frequency	Percent
Piped water	30	24
Communal tap(bono)	68	54.4
Well	27	21.6
Total	125	100

Source: Field Survey, 2014.

Access to basic services like water supply is a major indicator for the living situation of a society. According to Table 17, all surveyed households have not access to safe drinking water. However, access to piped water is limited to 24% of the respondents, those who use communal tap (bono) constituted for 54.4% and those who use well are only 23.15%. In addition, respondents have indicated frequent interruption and poor servicing to be a major problem with regards to water supply.

This shows the inadequate access of private tap water for food insecure households. As already stated above, access of the food insecure households to private tap is lower when compared to the other household heads; which is an indicator for limited access of basic services among the food insecure households. So, this study result is with similar finding, among physical capital refers to basic infrastructure (transport, housing, water, energy, communication) and production equipment and means which enable people to pursue their livelihoods (Ellis and Eedward, 2004).

The following Table shows that the respondent households source electric power in relation to food insecurity. In which the respondent different background and their corresponding food insecurity is indicated.

Table 18: Distribution of households by source of light.

Source of light	Frequency	Percent
Private meter electricity	37	29.6
Share meter electricity	81	64.8
No electricity	7	5.6
Total	125	100

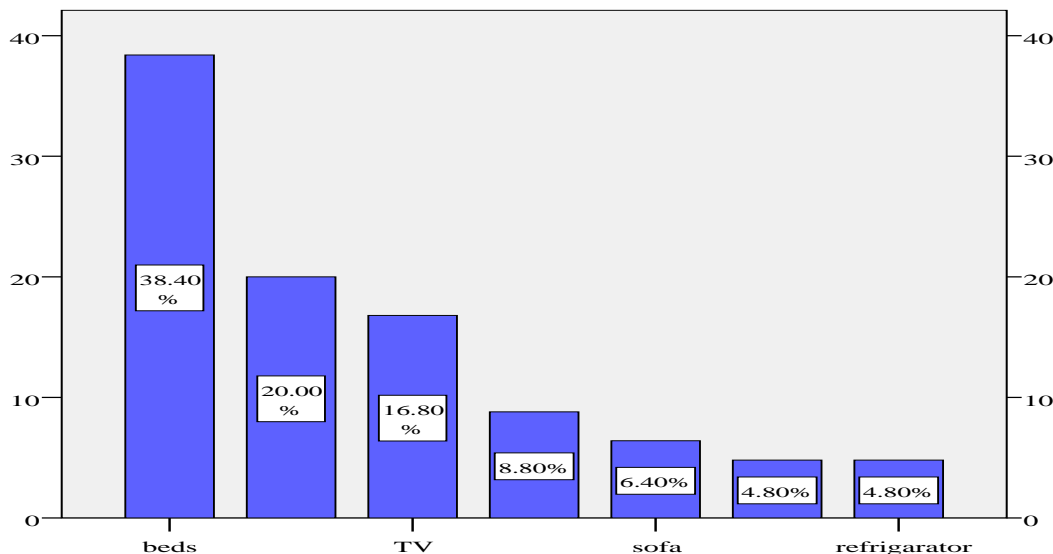
Source: Field Survey, 2014.

As indicated in the above Table 18, the majority of the surveyed households can use electricity as their source of light. About 29.6% of the households have private meters or electricity, 64.8% uses shared electric meters and 5.6% do not have any electricity. This study result indicates that the access to private electricity is lower among food insecure household heads.

#### **4.1.11. Status of Household Asset Ownership**

The consequence of current livelihoods of food insecure household heads can also be investigated by the quality and quantity of the tangible assets and stocks.

Figure 6: The status of the sample household asset ownership



Source: Field Survey, 2014

Sample households were asked to provide information about household asset ownership by listing the asset that they have (own) at the time of data collection, and purchased and sold in the last 12 months, as well as whether there is a relationship between asset ownership and food insecurity. As can be observed from Figure 6, the most commonly listed and owned assets during the data collection/fieldwork/were basic household properties with varying quality: beds (38.4%), Cell phone (20%), Televisions (16.8%), radio (8.8%) and sofa (6.4%) were reported assets in descending order from most commonly owned to least commonly owned assets by the sample households. Respondents were also asked whether the assets that they have owned were satisfactory or not.

As the key informant's response, all the current prices of food and other commodities are very high in the market but the purchasing power of the households is low with the income sources and the amount of income is constant or the same. When the researcher relate it with purchasing power, it is very difficult to live because the purchasing power of the people becomes very low in the Town because of economic inflation of commodities and lower power of the people to purchase commodities, the income of households remain constant. And also FGD's responses

indicate that, household's income is very low however the price of the commodities, services and goods is going up. In line of this, the responses of large proportion of FGD showed that they were not satisfied, and they lack purchasing ability because of increasing living costs. The unaffordable prices of assets are mentioned as the common reason for the failure to meet their needs related to assets. This study finding is similar to that of, Baumgartner and Belevi (2001), as claimed as employment and incomes are much related with asset ownership purchasing ability of households that can be main prerequisites for attaining food security in urban setting.

#### 4.1.12. Saving Status of Household Heads

As shown in the above Table 19, the result of respondents of this study sample survey indicates, about 24.8% save some amount of their income, whereas other (75.2%) do not have any kind of saving. Despite this, income plays a big role in the saving status. It has already been discussed that the food insecure respondents were concentrated among low income group when compared with their other household heads counterparts.

Table 19 : Response to saving status of households

Do you have saving	Frequency	Percent
Yes	31	24.8
No	94	75.2
Total	125	100

Source: Field Survey, 2014.

Saving is a function of income. Those who earn better are likely to save more than those who earn smaller amount of money. For instance, as explained in the same source, saving allows households to efficiently manage liquidity and provides a self-insurance mechanism i.e. saving provides against shortages of income and food. This is because individuals save part of their income only if their earning can cover their daily expenditure. This does not necessarily mean that those who earn more will definitely have savings because other variables like household size play a role in the saving status of a household.

The key informant responses indicated that, the main causes for the households to be insecure in their food supply are the economic problem, dependence, lack of organizing the households in micro finance, no saving habit. In a similar way, the FGD respondents of this study indicated that food insecurity can be caused by lack of credit organization, extravagant nature of households, low level of awareness of saving and its benefits, and low level of income for the households.

Table 20: Saving mechanisms of household heads.

Saving mechanisms	Frequency	Percent
Saving account	7	22.58
Credit association	5	16.13
Ikub	19	61.29
Total	31	100

Source: Field Survey, 2014.

Among the total respondents, as Table 20 indicates, seven of them (22.58%) save by using saving account, 16.13% use credit association, and 61.29% use 'Ikub'. This indicates higher participation of the food insecure households or respondents in Ikub followed by the saving account and credit association. This may be an indicator of the relationship between the type of job one is engaged in and the mechanisms used to save money. The availability of credit is expected to have impact on household food insecurity condition. Credit is a source of cash for purchasing. This study finding is supported by MoFED (2002), surveyed among common factors that cause for household food insecurity in urban areas of the country are: dependency ratio, access to credit, ownership of saving account, and total income per adult equivalent expenditure level.

#### **4.1.13. Involvement in Urban Agriculture**

There is growing evidence that shows the role of urban agriculture in helping to reduce urban food insecurity problem. United Nations Food and Agricultural Organization (2009) recognized the importance of urban agriculture as the source of income and food for urban dwellers. Urban households who are involved in urban agriculture are generally more food secured and benefited

from a more varied diet. This also agrees with what Armar-Klemesu (2000), expressed as with 15-20% of the world's food being produced in the Urban areas, urban agriculture can significantly benefit poor households food security.

Figure 7: The sample households of vegetable production activities in the study area



Source: Field Survey, 2014

Urban farming is generally practiced for income earning or food-producing activities though in some communities the main stimulus is recreation and relaxation. Urban agriculture contributes to food security in two ways: first, it increases the amount of food available to people living in cities, and, second, it allows fresh vegetables and fruits and meat products to be made available to urban consumers.

Table 21: Distribution of sample households by participation on UA

Urban agriculture	Frequency	Percent
Yes	32	25.6
No	93	74.4
Total	125	100

Source: Field Survey, 2014.

Table 21 above depicts that, about 25.6% of sample households were engaged in urban agriculture. The result of the survey explained that 74.4% of food insecure households did not engage themselves in urban agriculture. On the other hand, those households involved in urban agriculture and found to be the food insecure households accounted for 25.6%.

With regards to the key informant responses, the involvement of the urban agriculture helped the members of the association for better food access. In a similar way, the researcher of this study observed that, the respondents of this study improved their income because of their engagement in vegetable production. Furthermore, FGD's responded that, through urban agriculture, the lives of poor households have been changed and it contributed much for the improvement of the lives of many individuals. Hence, this study finding is supported by World Bank (2005) which stated about urban agriculture as a survival strategy for urban poor during crisis periods, and contributes to household food security especially for women and elderly.

#### **4.1.13.1. Reasons to start urban agriculture**

The household questionnaire on the reason for households to engage in urban agriculture reveals that urban dwellers are practicing UA for the reasons of low food supply at the household level, unemployment and low income for the families.

Table 22: The status of reasons to start urban agriculture of respondents.

Reasons to start urban agriculture	Frequency	Percent
Low food supply	24	19.2
Unemployment	46	36.8
Low income	55	44
Total	125	100

Source: Field Survey, 2014

As the above table 22 indicates, household respondents reason for the engagement to urban agriculture to fulfill low supply of food were about 19.2%. Unemployment that pushes the households to practice agriculture is about 36.8%. And also, from those low income households



of 44%. Thus, it is to analyze and possibly to draw the advantages of urban agriculture in that it supports for the better access and availability to food for the urban poor: access through self-production or purchase. So, this study finding is supported by Zezza & Tasciotti, (2010) urban agriculture can be seen as a survival strategy for the urban poor during crisis periods, and contributes to household food security. Most of respondents involved due to unemployment.

## 4.2. The Factors Affecting Food Security of the Households

A number of factors can explain the trend towards the increasing of food insecurity situation in the study areas. Respondents who were interviewed individually and in group have explained diverse factors those can either causes or aggravate food insecurity at urban household level.

Table 23: The factors affecting food security of the households

Factors affecting food security of the households	Responses of sample household heads	Percent (%)
Unemployment	84	67.2
Low level of education	102	81.2
Urban expansion	83	66.4
Population growth and scarcity of resource	79	63.2
Lack of access to credit services and income (opportunities)	67	53.6
Increase in prices of food and other commodities	96	76.8

Source: Field Survey, 2014

As depicted in the above Table 23, about 81.2% of the respondents those faced low level of education which was constrained for urban household's food security. Households who lack access to education, qualifications, skills, training, health and other human capital were emphasized as the most disadvantageous. About 76.8% of the respondents answered that the rise in price of food and other commodities and social services have impact on household food security. The respondents of the study expressed that large proportion of urban dwellers have their food through purchasing almost all of their food as well as other goods and services including education, healthcare, housing, transportation etc can affect households food security.

Therefore, the urban households are highly powerless to price of variations on the markets. Those who have enough income still buy enough to eat with higher prices. The impact of inflation has been one key element that has resulted in increased food insecurity in urban areas of Ethiopia. The rapid increases in food prices during 2007 and early 2008 showed the vulnerability of the urban poor to price rises. The rise in food prices led to a significant increase in food insecurity among poor households. As a result food expenditures can be as much as 60–80% of the total income of low-income households. Therefore, food price inflation leads to poor households having to spend a larger proportion of their incomes on basic food commodities or resorting to poor quality diets (Baiphethi and Jacobs, 2009 and USAID, 2009).

As shown in the above Table 23, unemployment (67.2%) is a serious problem next to low level of education and increase prices. This is partly explained by poor human capital development, and other factors like large number of job seekers and static nature of new job creation. Those who work in low pay jobs, casual work, and wage labour or informal activities cannot generate sufficient income to meet household's basic needs including food consumption.

In Ethiopia, unemployment and underemployment, clear manifestations of poverty, are high. While unemployment in the larger urban centers is estimated to be between 26% and 40%, underemployment due to unplanned of labor is also widespread. For instance, the proportion of urban households engaged in casual work has increased from 15% in 1989/90 to 35% in 1995 which indicates how volatile household incomes can be, increasing susceptibility to poverty (Kedir 2005).

And also, the above Table 23 shows, about 66.4% of respondents of Gimbichu town are rapidly expanding and affecting the immediate urban peripheries and rural PAs kebeles like 'arice uyaya', 'sigeda' and 'haniqota'. This horizontal expansion can greatly impact the agricultural activities and productivity in the peripheries of this study area. According to the agriculture and rural development office of the Wereda (2007), about 59 rural populations were affected negatively in connection with the expansion of Gimbichu town.

Moreover, as shown in the above Table 23, about 63.2% HHs responded as there was no reason about population growth at Gimbichu town. In this town, many contributing factors for rapid population growth were identified. From those identified factors: Early marriage, poor family planning, and economic value of Children were more prominent. So this reason, the existing context of population growth because of the new environment or destination, migration in addition with high population growth may have its influence on food security of the households, because recent arrivals may have impeded access to important economic resources relative to long-time residents of the town if the existing context is not favourable to facilitate job opportunities, access to community resources, and the like which may have a direct impact on the food security of their household. Therefore, the process of urbanisation is leading to the horizontal expansion of urban area, often destroying valuable agricultural land, increasing the cost of living in the town, and may lead the urban poor to food insecurity. Urban population will continue to grow, and problems will also grow with them unless action started now.

Furthermore, as it is shown in the above Table 23, about 53.6% HHs responded as they experienced lack of access to credit service and income that can resist them not to stabilize as well as secure their food access. According to the regional food security unit assessment in 2001/002, the major problem of income generating and credit services are lack of entrepreneurship, lack of managerial skills, shortage of capital and skilled man power. The unit added that the inability of business activities to lead smoothly was also manifested in the region. An increasing trend of the share of the poor population in urban areas, high inequalities in income distribution, high population growth rates, high food prices and low job creation all combine to threaten the food security of the urban poor. This presents a new challenge to policy makers of balancing their efforts to address not only rural poverty but also urban poverty. More importantly the issues of urban poverty such as food and nutrition insecurity need attention (Ssewanyana, 2003).

According to the key informants respondents, the price of food, social and public services and other commodities are highly increasing from day to day and time to time. But, the income sources and the amount of income is constant or the same. When researcher relate it with

purchasing power, it is very difficult to live because the purchasing power of the people becomes very decreasing in the town. In a similar way, FGD participants, responded that, the people's income is very low, in other way the commodities, services and prices are increasing from day to day.

### 4.3. The Situation of Households Food Security

#### 4.3.1. Frequency of Meal by the Respondents

The number of meal per day and the composition of each meal vary for urban households according to the season, the price increase or decrease and the sustainability of income from non-farm activities. This survey was carried out during food shortage periods of the year in the study sites. Therefore, households responded to this kind of food shortage seasons (for instance: from spring, May; from summer, August and from autumn, October are most food insecurity starvation happen on households) in various ways. Among this, the changes occur in type and frequency of consumption in their household. The Table 24 below shows the average frequency of meals of households during one weak prior to the period of data collection.

Table 24: The status of frequency of meals by respondents

Respondents meal per day	Frequency	Percent
Three time	21	16.8
Two time	51	40.8
One time	53	42.4
Total	125	100

Source: Field Survey, 2014.

It is known that the meal frequency per day is different in every household's consumption habit. When we look at the meal per day status of the respondents, as shown in Table 24, about 42.4% are one time, 40.8% are two times and 16.8% are three times. The study result on the average frequency of food intake during the seven days prior to data collection showed high share is one time meal 53 (42.4%). Among the total food insecured households, the highest share is

constituted by one time. However, among households who reported as they have three meals per day, a considerable number of households also told that they reduced the size of their meals.

Generally, the frequency of meals per day indicates the situation of food insecurity in the study areas. Therefore, the result of more than 3/4 or greater than 75% shows below the standard meals per day per persons. According to researcher observation, many people who live in Gimbichu town eat two or less than two times per a day. In addition to this, many people in this area eat unbalanced diet, i.e. they eat whatever they find. Not only this but also, they eat the same type of food regularly such as maize, wheat, enset, teff, etc. In a similar way Debebe Habtewold, (1995) found, if household is constantly unable to meet the food requirements of its members over a long period of time marked by a continuous and constant failure to food acquisition, it is known as chronic food insecurity.

#### **4.4. Coping Strategies Employed by Households against Food Insecurity**

##### **4.4.1. Coping Strategies Status of Household Heads**

As the researcher collected responses from the households through questionnaire, the respondents mentioned about 9 different coping strategies. The household respondents experienced in the past during food insecurity in order to cope up from food problems. Each household were conducted through interviewed questions to get about coping strategies that the HH used in the last four weeks; they borrowed cash, reduced number of meal, reducing the size of meal, participating work for food, receiving food aid, seasonal migration, remittance, participation on begging, and becoming daily labor worker. Specifically, the question was “during the last four weeks, as the family member” have to eat fewer meals in these weeks, as they go a whole day without eating, as they took a credit to buy food etc. The households reported using various copying strategies in the four weeks through questionnaire of the study.

Table 25: Coping mechanism of urban poor households during food shortage (N=125)

Coping mechanism	Frequency	Percent
1. Borrowing cash	19	15.2
2. Reducing number of meal	82	65.6
3. Reducing size of meal	75	60
4. Participate in food for work	10	8
5. Received food aid	7	5.6
6. Seasonal migration	10	8
7. Remittances	31	24.8
8. Go for begging	4	3.2
9. Become daily labor	10	8

Source: Field Survey, 2014.

In the study area, the urban households used different coping mechanisms during food shortage. As Table 25 depicted, among the study respondents about 15.2% engaged in borrowing cash in order to buy their food (relatives or neighbors) as coping strategy, about 65.6% HH respondents reduced the number of meals that they took, and about 60% HH respondents reduced their amount meals that they used consume. About 8% of the respondent answer that participate food for work, 8% respondents their coping strategies during food shortage is seasonal migration, 24% of the respondents responded remittances while the remaining 3.2% and 8% of the respondents that responded they got for begging and became daily labor respectively This finding is supported by Maxwell *et al.*, (2003) who argues that most commonly, households can attempt to manage the deficit by rationing the food available to the household i.e. cutting portion size or the number of meals, favouring certain household members over other members and skipping whole days without eating.

The main survival strategies experienced are: migration, engaging in daily labor, food aid, decreasing daily food intake and changing food stuff, and support from relatives and friends. Give their capacity and available opportunities households try to implement different coping and survival strategies to handle the stress situation. There are some coping strategies adopted to minimize the impact of livelihood shocks which include selling of such as livestock and petty trading, handicrafts. When people become more and more vulnerable all these coping strategies

become exhausted and their strategies are limited to survival or to combat destitution and death (Ejiga, 2006)

#### 4.4.2. Consumption Status of Households

The respondents were selected whether to use this strategy to reduced the quality of foodstuffs, quantity of food consumed or both in order to analyze about households consumption status. This analysis helps to understand the depth of the problem faced by the poor households and how they survive harsh economic times.

Table 26: Distribution of household's consumption of food items

Changes made to consumption of food items	Frequency	Percent
Reduced the quantity of food	43	34.4
Reduced the balancing of food consumption	64	51.2
Both	18	14.4
Total	125	100

Source: Field Survey, 2014.

As shown in the above Table 26, the respondents were asked to specify whether they have reduced the quantity of food, balancing of food consumption (reducing quantity of food) or both. Then the respondents answered that the highest share food is constituted by those who have indicated to reduce both the quantity and balanced diet (food) consumed. This showed that poor households were not able to have enough money for their usual eating habits and forced to adjust to a new eating habit which is characterized by reduced quantity and declined in balance diet (food).

Among the respondents who have indicated to have used this mechanism to cope with the problem of food insecure household heads. This indicated that the food insecure households were faced with sever problem that they have to reduce food consumption in both the balance diet (A diet that contains the proper proportion of carbohydrates, fats, proteins, vitamins and water necessary to main good health) quality and quantity of meal. About 51.2% HH respondents

have indicated that, they have reduced in their balance diet quality of food they consumed. These respondents pointed out that, they shifted to consume food which is less costly; so this, the households tend to reduce their expenditure on food items. Reducing the number of meals eaten in the house is another strategy used by the poor households. About 34.4% HH respondents were on food insecure households were used the above coping mechanism as a survival strategy of quantity of food consumption.

Table 27: The status of sample HHs coping strategies or mechanisms ranks

The coping strategies or mechanisms ranks	Frequency	Percent
12345	7	5.6
12435	1	.8
12534	1	.8
21345	97	77.6
21354	1	.8
23145	7	5.6
23415	2	1.6
23451	2	1.6
24351	1	.8
24531	1	.8
32145	1	.8
32415	1	.8
32451	2	1.6
34521	1	.8
Total	125	100.0

1=reduce number of meals 2=reduce size of meals 3=food aids 4=seasonal migration (some of the family members) 5= go for begging

Source: Field Survey, 2014.

From Table 27, indicates the chronological order of coping mechanisms (strategies). The study shows 97 (77.6%), 7 (5.6%), 7 (5.6%), 2 (1.6%), 2 (1.6%) and 2 (1.6%) the first one was 21345, 12345, 23145, 23415, 23451 and 32451 respectively. During data collection, most respondents



told almost greater than 3/4 or 75% 21345 which means reduce size of meals, reduce number of meals, food aids, seasonal migration (some of the family members) and go for begging.

During the discussion held with FGD respondents, there was noted that women participate in petty trading such as selling of local drinks (Areki), fire wood, and injera baking to sell. As the respondents told that, in most cases, the households borrow money from money lenders; and are seasonal to migrants to the nearest town and other residences. Most of the times, the husbands migrate during the shortage of foods in the household in this study area and it's surrounding. In addition, to the above coping mechanisms: children sell their labor and work on the other town from Gimbichu. The most common coping mechanisms practiced among the women are selling traditional hand craft, selling local drinks and borrowing money from the money lenders.

From the data collected from the household respondents, the respondents employed several coping strategies while they encountered by lack of food access. It is also evident that, as the extent of the food security problem increases, households are more likely to use various strategies to cope with food shortages. Participants of this study claimed that attitude of the communities; cultural practices and beliefs of the households influence the kind of strategy that can be adopted to address food security, and one of the key informants asserted that there is a tendency to consider households who employ more coping strategies as households who are not able to win bread and vulnerable to food shortage.

## **5. SUMMARY, CONCLUSION AND RECOMMENDATIONS**

This chapter contains a summary of the study and its findings. It also comprises of the conclusions drawn from the findings and recommendations that can serve as basis for policy and intervention implications.

### **5.1. Summary**

Food insecurity is one of the critical issues that need to be addressed in Ethiopia. Both government and NGOs had been playing key roles to reduce the food insecurity problem in the country. Food insecurity has become one of the challenges of the urban poor though many of them have tried different mechanisms to free themselves from poverty. The basic objectives of this study are; to examine the urban household food insecurity situation, investigate the factors that affect the urban household food insecurity and recognize the coping strategies employed by households against food insecurity in the study area. This study was conducted in three kebeles (01, 02, and 03) of Gimbichu town, the capital of Soro woreda.

This study has employed descriptive research method in order to assess the attitude of the respondents on situations of household food insecurity and copying strategy in the study area. It was carried out using survey method. Thus, under this method, a cross-sectional research design was specifically used. Concerning the sources of data, both primary and secondary sources were generated by employing quantitative and qualitative methods. Primary sources were generated from the information collected from respondents and informants. Secondary sources were obtained from published and unpublished materials. The key instruments used in this study are questionnaire, in-depth interview with key informants, focus group discussions, and non-participant observation. In order to attain the principal aims of the study, demographic and socio-economic data were collected using 125 questionnaires. To supplement the quantitative data, 13 respondents were selected for FGD, and 12 key informants were consulted for in-depth-interview. Moreover, a total of 150 individuals were involved during data collection. The quantitative data were analysed and organized by using statistical package for social sciences

(SPSS) software and Microsoft office Excel. Thus, tables, percentage, frequency distribution, and figures were used.

The main findings of this study are;

- ❖ Household incomes, occupational and educational status of household heads, household size, household head age, ownership of bank account, marital status, and income from remittance and gift were found to have influence on household's food insecurity in the study area.
- ❖ The coping mechanisms (strategies) of most respondents (75%) in the chronological order were reducing size of meals, reducing number of meals, food aids, seasonal migration (some of the family members) and begging. Reduction in meal size and shifting to poor quality/less expensive/food types were (wheat, sorghum and maize) among the common coping strategies to high food price used by households.
- ❖ Lack of productive assets, unemployment, underemployment, high dependency on the informal jobs, rapid urbanization, and increase in prices of food and other commodities were major concerns of the respondents. In addition, poor urban infrastructure and problems of social services like shortage of safe drinking water were serious challenges to most of the households during data collection.

## **5.2. Conclusions**

Household size was found to be directly related with household food insecurity. Larger family households have higher probability to be food insecure. The increasing trends of unemployment attached with high rate of price rises have contributed to the worsening of income generation capacity of food insecure households. When there are more members of the household who could not actively be engaged in different productive businesses adversely affected the household's food security status. This study also indicated that when the old aged and female headed households had negative impact on food security status. This means older household heads and female headed households have lesser probabilities of being food secure than others.

The study reveals the factors that affect the household's food insecurity of poor urban households including HHs size, age of HHs heads, marital status of HHs, educational level of HHs, dependency ration. Low purchasing power, in turn, is associated to low income, unemployment and under-employment, low educational quality that limits access to well-paid jobs. Households not only reduced their purchase and consumption of food but also the rise in food price affected non-food items.

The study shows the respondents employed different coping strategies to escape of food shortage include reducing number and size of meals, remittances, borrowing cash, participate in food for work, become daily labor, received food aid and go for begging. Nearly 65.5%, 60%, 24% and 15.2% of the vulnerable group use reduces number of meals, reducing size of meals, remittances and, borrowing cash as their 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> coping strategies during of food shortage.

## **5.2. Recommendations**

The data indicated that the issue of urban food insecurity has links with various factors existing within the town as well as outside the town. Therefore, the current and future urban food insecurity problem may be mitigated by strategies which can address not only urban areas but also the countryside.

Based on the findings the following ideas are forwarded as recommendations to improve urban household food insecurity in the study area.

- Policy makers, governmental and non-governmental institutions should devise some feasible measures on family planning to reduce large household size that served as one among the leading causes of food insecurity in the study area. This can be carried out using continues education that encompasses all aspects of trainings that may bring attitudinal changes and targeting at reducing fertility level.

- Age and sex of the household head had significant impact on food insecurity. This means old household heads and female headed households are less likely to be food secure. Therefore, capacity building for elderly household heads and female headed households should be given more priority. Social interventions intended to help urban poor households have to give priority to aged and female headed household.
- Household source of income should be diversified mainly by increasing their industries and activities and bringing attitudinal change in terms of improved saving habit of urban households as one of the intervention measures.
- Government should intervene on this area through policy formulation, training support and awareness creation since poor urban households are found to be a nice alternative for employment of urban dwellers.
- Urban agriculture solves the problems of many individuals like those who lack job opportunity. Hence, urban agriculture should be seen as an alternative source of income for the urban community.
- Generally, food insecurity is a multifaceted concept, which cannot be treated in isolation from other causes of poverty. Therefore, efforts geared towards achieving food security should be addressed to the areas of human and infrastructure development. Hence, providing basic infrastructure social network such as, transport, health, education, telecommunication, electricity etc. and access to urban credit services and the promotion of poor urban household heads cooperatives should be enhanced.
- Finally, the task of food insecurity in poor urban household's reduction cannot be handled by the government alone. Different stakeholders like NGOs, micro and small enterprises, and the community need to join hands together in the mission to reduce food insecurity.

Finally, it is the argument of this thesis that, through the combined efforts of the community of the area, government bodies, NGOs and donors, it could be possible to reduce vulnerability and bring about significant reductions in all manifestations of household livelihood insecurity.

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## **7. APPENDICIES**

## 7.1 Appendix-I

This questionnaire was aimed at obtaining information concerning the current food insecurity situation of the households living in Gimbichu town.

### **Part-One: General information of the household head (respondent)**

1. The respondents from which kebele in Gimbichu: 1. 01-kebele 2. 02-kebele 3.03-kebele
2. The respondents of Sex: 1. Male headed households 2. Female headed households
3. Age: \_\_\_\_\_
4. Religion: 1. Protestant 2.Orthodox 3.Muslim 4.Catholic 5.Other \_\_\_\_\_
5. Ethnicity: 1.Hadiya 2. Kembata 3. Siltie 4. Guraghe 5. Amhara 6. Other, specify
6. Marital Status: 1. Single 2. Married 3. Divorced 4. Widowed
7. Is the household head is economically active? 1. Yes 2. No
8. If your answer is No for question number 7, what is the reason? \_\_\_\_\_
9. The household size: Male\_\_\_\_\_ Female\_\_\_\_\_ Total\_\_\_\_\_
10. Family Size: 1. Small Size (1-3) 2. Medium (4-6) 3.Large Size (7-10)  
4. Very Large Size (Above 10)
11. Educational status of the household head: 1. cannot read and write 2.Grade 1-4  
3. Grade 5-8 4. Grade 9-10 5. Grade 11-12 6. Above grade 12
12. Are you employed? A. Yes B. No
13. If your answer to the question No.12 is 'yes', in which type of institution are you employed in? A. Public sector B. NGO C. Self-employed D. An employee of business enterprise
14. If your answer to the question 13 is 'self-employed' specify the type of job you are engaged in? A. Petty trade (Gulit) B. Trade C. Metal/wood work. D. Selling local food and drinks (Enjera,Dabo, Areke, Tela, Tej...) E. Handicraft
15. Place of birth: \_\_\_\_\_
16. For the last five years household size of Gimbichu town.  
A. Increased B. Decreased C. Not changed
17. Employment status of respondents A. Employed B unemployed C. pensioner



**Part-Two: Demographic (Household information)**

01	02	03	04	05	06	07	08
Serial	Name of the Household	Age (years)	Sex	Marital Status	Religion	Education level	Relation to the head of
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							

Codes for 05: 1 = Single 2= Married 3 = Divorced 4 = Widowed

Codes for 06: 1= Protestant 2 = Muslim 3= Christian 4=Catholic 5= others \_\_\_\_\_

Codes for 07: 1. Not read and write 2. Grade 1-4 3. Grade 5-8 4. Grade 9-10

5. Grade 11-12 6. Above grade 12

1. Family Size by Sex and Age

Age Group	Sex		Total
	Male	Female	
Under 15			
Between15-64			
Above 64			
Total			

**Part Four: Housing/ Shelter and health/sanitation**

1. Do you own the house? A. Yes B. No

2. If your answer to question no.1 is 'No', who is the owner of the house?

A. Private individuals B. Kebele C. public rental house D. Rented from private owners

3. Does your house have \_\_\_\_\_? A. Private toilet (pit) B. Shared toilet (pit) C. Shared toilet  
D. No toilet
4. Source of drinking water? A. Private tap inside the house B. Public Tap /Bonno  
C. Well
5. Main source of light? A. Electricity (Meter private) B. Electricity (Meter shared)  
C. No electricity D. Other, (specify)
6. Is there any member of household suffered from major health problem during the last 12  
months? A. yes B. No

### **Part Five: Household income**

1. Do you have saving account or a member of saving credit association? 1. Yes 2.No
2. What are the major sources of your household income? A. Salary B. Own business  
C. Pensions D. Support from relatives E. Support from the government F. Rented house  
G. Support from NGOs
3. What is the total monthly income of the household? Birr \_\_\_\_\_
4. How much is your average monthly income from all sources? A. less than 500 B. 501-1,000  
C. 1001-1,500 D. 1501-2000 E. 2001-2500 F. 2501-3000 G. 3001-3500 H. 3501-4000  
I. More than 4000.
5. Does any member of the household have a bank account? 1. Yes 2.No

### **Part Six: Urban Agriculture**

1. Does the household involved in urban agriculture? 1. Yes 2. No
- 1.1. What is the total size of your farm land? \_\_\_\_\_in hectare or local?
- 1.2. In the last 12 months has the household grown any fruits /vegetables/ and/or/ raised any  
Livestock on this land? 1. Yes 2. No
- 1.3. If your response is “yes” for Q1.2, what proportion of the fruit or vegetable and animal  
or animal production is given away or sold? 1. None 2. Less than half  
3. About half 4. More than half 5. All/almost all
- 1.4. What is the reason for you to start urban agriculture? 1. Low food supply for HH  
2. Unemployment 3. Low income

**Part Seven: Household Expenditure (Food Expenditure)**

1. Could you tell us the amount of spending on all products that cover the last 12 months use food requirements of your household members? If they did not purchase the item, skip to the next. 1quintalteff=1500birr, 1Qwheat=850birr, 1Qmaize=750birr, 1QBarley=725birr

Food items (Food requirements)	Amount in quintal or kg	Equivalence (In Birr)
Teff		
Wheat		
Maize		
Barley		
Sorghum		
Enset(qocho)		
Pulses		
Animal products		
Fruits		

2. What is your average household monthly expenditure (spending) on food? Birr \_\_\_\_\_

**Part Eight: Information about household Savings and credit**

- Do any adult household members currently have any savings? 1. Yes 2. No
- If you are saving in cash, in which of the following ways to save the money?  
A. In a saving account B. In credit association C. Equib
- If you have financial savings, how much is your savings in birr? \_\_\_\_\_
- Have any adult household members borrowed cash or goods from anyone in the last 12 months? 1. Yes 2. No; if your answer is “yes”; explain the reason.
- Is there addition income in the household from remittance or gift? 1. Yes 2. No

**Part Nine: Household property (assets)**

Answer whether the household owns each of the following assets and indicate the number of assets. If the household owns an asset but it is broken, answer a "no" response.

Asset	Number of items	Asset	Number of items
1. Bed		7. Radio/Tape player	
2. Table and Chair		8. Cell phone	
3. Refrigerator		9. Car	
4. Sofa set		10. Motorcycle	
5. Stove (electric)		11. Washing Machine	
6. TV		12. Others: specify	

**Part Ten: Food Consumption and food security information.**

1. Which of the following products are consumed at your home?

	01	02	03	04	05	06	07	08	09
Food stuffs	Wheat	maize	Barely	Sorg-hum	Teff	Enset (qocho)	Pulses	Vege-Tabels	Animal products
How many times was it consumed at your home during the last seven days?									

2. Specify the types of products frequently consumed by the family (in order of importance)
- 

3. Specify the types of products frequently lacking in your family (in order of severity)
4. What is the average number of meals per day in the family: 1. One 2. Two 3. Three  
4. Four
5. According to your own observation, how you explain your household food security Situation? 1. Food secures 2. Food insecure 3. Varies from one year to another  
4. Do not know
6. Are there any institution which is participating in food security? 1. Yes 2. No
7. If yes which institution contributing in providing food security.  
1. Government organization 2. NGO 3. Religious bodies 4. Others
8. Answer the following household food security related questions in the past four weeks; by Using: -

1. In the past four weeks, did you worry that your household would not have enough food?

0 = No (skip to Q2)

1 = Yes if your answer is “yes” continues the next

1. A. How often did this happen?

1 = Rarely (once or twice in the past four weeks)

2 = Sometimes (three to ten times in the past four weeks)

3 = Often (more than ten times in the past four weeks)

**The questions are taken from United States Agency for International Development (USAID, 2007)**

Occurrence Questions	Responses		
1. In the past four weeks, did you worry that your household would not have enough food?	0	1	
	1	2	3
2. In the past four weeks, were you or any household members not able to eat the kinds of foods you preferred because of a lack of resources?	0	1	
	1	2	3
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?	0	1	
	1	2	3
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?	0	1	
	1	2	3
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?	0	1	
	1	2	3
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?	0	1	
	1	2	3
7. In the past four weeks, was there ever no food to eat of any kind in your household because of a lack of resources to get food?	0	1	
	1	2	3
8. In the past four weeks, did you or any household member go to sleep hungry at night because there was not enough food?	0	1	
	1	2	3
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?	0	1	
	1	2	3

### **Part Eleven: Coping strategies**

1. What are the main coping strategies of your household against food insecurity?
  1. Cheaper foods 2. Loan 3. Reduced meal frequencies 4. Smaller quantities eaten
2. If you have reduced food consumption, how did you do it? A. Reduced the quantity of food eaten in the households B. Reduced the quality of food C. Both
3. List out the main coping strategies of your household against food insecurity?
 

Order from the first to the last (chronological orders)

  1. Reduction of food intake (reduced meal frequencies & smaller quantities eaten)
  2. Change in diet (consumption of wild foods, cheaper foods etc.)
  3. Reduction of expenditures on health care (& water purchase)
  4. Reduction of social support to the community, (relatives & neighbors)
4. The coping strategies practiced by poor urban households of Gimbichu towns.

Practiced Strategies	The numbers of respondents	percentage
1. Borrowing cash		
2. Reducing number of meal		
3. Reducing size of meal		
4. Participate in food for		
5. Received food aid		
6. Seasonal migration		
7. Remittances		
8 Go for begging		
9 Become daily labor		

### **Part 12: The** Factors affecting food security of the households of Gimbichu towns.

Factors affecting food security of the households	Responses of sample household heads	Percent (%)
Unemployment		
Low level of education		
Urban expansion		
Population growth and scarcity of resource		
Lack of access to credit services and income (opportunities)		
Increase in prices of food and other commodities		

## 7.2 Appendix-II

### II. Interview guide for government officials (Key Informant Interview)

Name, age, sex, profession, position, work experience

- 1 .What do you think about the trends and rate of population increase Gimbichu town? If it is increasing, what is the major factor(s)?
2. How do you observe the food security situation of the town?
3. What are the major causes lead households to be food insecure in the town?
4. What is the role of institutions in enabling households to achieve food security in the study area?
5. Are there any strategies /programmes/ to address food security problems particularly among the very poor households in the town?

### 7.3 Appendix-III

#### III. Focus group discussion guidelines.

Date of discussion \_\_\_\_\_ Place of discussion \_\_\_\_\_

Time: started \_\_\_\_\_ ended \_\_\_\_\_

1. How you to understand the prices of food, services and other commodities in the market?  
How do you relate it with the purchasing power of the households?
2. What do you think about the food security situation of the urban households? Do you think that it is becoming improving from time to time?
3. How do you relate the income, expenditure, and prices of food and other commodities with household food security?
4. Overall food security situation of households in the town:, number of meals per month, trend of household's food consumption from time to time.