

*Addis Ababa
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COLLEGE OF DEVELOPMENT STUDIES
CENTER FOR FOOD SECURITY STUDIES

URBAN PRODUCTIVE SAFETY NET PROGRAM IN ETHIOPIA: BENEFICIARIES' FOOD
SECURITY STATUS, PARTICIPATION DETERMINANTS AND ITS CONTRIBUTIONS IN
GULELE SUB-CITY, ADDIS ABABA

BY

KASSAYE AMOSHA HULLUKA

JULY, 2020

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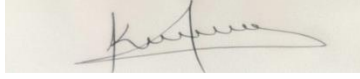
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Kassaye Amosha Hulluka

July, 2020

Declaration

I declare that this thesis is my original work and has not been presented for a degree or certification in any other Universities, institutions and that all sources of material used for the thesis have been duly acknowledged.



Kassaye Amosha Hulluka

July, 2020

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Approval Sheet

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As supervisor of the thesis, I certify that I have read and evaluated the thesis prepared by **Kassaye Amosha Hulluka** entitled “*Urban Productive Safety Net Program in Ethiopia: Beneficiaries’ Food Security Status, Participation Determinants and Its Contributions in Gulele Sub-City, Addis Ababa*” and recommend for open defense as fulfilling the requirement for the degree of **Master of Science in Food Security and Development**.

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Abbreviations

CSG:	Child Support Grant
DS:	Direct Support
FGD:	Focus Group Discussion
GDP:	Gross Domestic Product
GoE:	Government of Ethiopia
HFIAP:	Household Food Insecurity Access Prevalence
HFIAS:	Household Food Insecurity Access Scale
KII:	Key Informant Interview
MOA:	Minister of Agriculture
MoARD:	Ministry of Agriculture and Natural Resources
MoLSA:	Ministry of Labor and Social Affairs
MoUDH:	Ministry of Urban Development and Housing
MRA:	Minimum Recommended daily Allowance
NGOs:	Non-Governmental Organizations
PDS:	Permanent Direct Support
PSNP:	Productive Safety Net Program
PW:	Public Work
SDG:	Sustainable Development Goal
SNAP:	Supplemental Nutrition Assistance Programme
SP:	Social Protection
SSN:	Social Safety Net
TDS:	Temporary Direct Support
TVET	Technical and Vocational Education and Training
UFSS:	Urban Food Security Strategy
UJCFSP:	Urban Job Creation and Food Security Program
UPSNP:	Urban Productive Safety Net Program
WB:	World Bank
WFP:	World Food Program
WHO:	World Health Organization

Glossary for Local Terms

Chercharo: Sales of basic commodities conducted by petty traders

Dube: Informal credit in the form of cash or in-kind offered to households by shopkeepers or traders

Iddir: An association established among neighbors or workers to raise funds that will be used during emergencies, such as death within these groups and their families.

Injera: The thin flat bread which is made from *Teff* and/or other Cereals

Iqub: An association established by a small group of people in order to provide substantial rotating funding for members in order to improve their lives and living conditions

Ketena: A sub-division under *woreda*, and is governed by *woreda* council

Oollo: A snack food consisting of roasted cereals and pulses

Shiro: A stew which is made from pea flour cooked with oil and onions

Woreda: A sub-division under sub-city which is the smallest administrative unit in Ethiopia

Abstract

Understanding the root causes and level of food security would help policy makers to design and implement more effective policies and programs for the poor and thereby helps to pave way to improve food security. The central purpose of the study was to examine urban productive safety net program in Ethiopia and its effects on the food security status of beneficiary's households in Gulele sub-city, Addis Ababa. Household surveys were conducted with 271 samples in the study area. Analytical tools used include descriptive statistics, logistic regression model, Household Food Insecurity Access Scale (HFIAS) and ordinary logit model. Problem tree analysis was used to analyze the causes of food insecurity of study areas. The result logit model indicates, age of household head, cash transferred from program, total income expenditure, consumption of durable goods to be more significantly associated with household participation. The results show that the approximately 2.2% of households were categorized as food secure, 26.3% as mildly food insecure and 49% as moderately food insecure and 22.5% as severely food insecure in the study area. The ordered logit model result also indicates age, family size, saving access and consumption of durable goods of participant household heads have both positive and negative effect on food security. The study concludes that even though urban productive safety net program have a positive effects on beneficiaries, but not have statically significant changes in their livelihood. The study recommends that local government at (federal, city, sub-city, and woreda level) give attention on to create job opportunities, family planning and the adjustment of the amount of cash transfer for the participants based on the current living condition to ensure their food security.

Keywords: *Social Protection, Urban productive safety-net programme, Beneficiary households, Household Food Insecurity Access Scale, Gulele Sub-city, Addis Ababa*

CHAPTER ONE: INTRODUCTION

1.1. Background

Food insecurity is inability and difficulty to access to nutritious and adequate food at all times for all peoples. If it is not alleviated and withstand over a period of time it creates a vicious circle of destitution and being a problem of sustainable development (IFAD, 2014). Even if there is a success story in reduction of hunger and poverty in some countries of South Asia and sub-Saharan Africa, the overall prevalence of hunger and poverty progress has fallen slowly. Most of the people in these countries live in rural areas and rely on agriculture as the source of their income. Due to the prevalence of hunger and poverty, they become chronically food insecure (FAO, 2015). In Southern Asia and sub-Saharan Africa, where 34% of children under 5 years are stunted which means, impaired growth and development of children experience from poor nutrition, repeated infection, and inadequate psychosocial stimulation or if their height-for-age is more than two standard deviations below the World Health Organization (WHO) Child Growth Standards median. In addition to the challenges of stunting and wasting, Asia and Africa are also home to nearly three-quarters of all overweight children worldwide, largely driven by consumption of unhealthy diets. This situation is most alarming in Africa, as the region has the highest rates of hunger in the world and which are continuing slowly but steadily rising in almost all sub regions. In Eastern Africa in particular, close to a third of the population (30.8 percent) is undernourished (UNICEF, 2019). In addition to climate and conflict, economic slowdowns and downturns are driving the rise.

Like other African countries, Ethiopia faces food insecurity. According to the world food program report in Ethiopia more than 10 million peoples require emergency food assistance in 2016, following El Niño drought in 2015 affect many parts of Ethiopia (WFP, 2017). On the other hand, literature indicates that about 10% of Ethiopians are chronically food insecure and this figure rises to more than 15% during drought years and 2238,761 children require treatment for severe acute malnutrition (Endalew, Gashaw & Solomon, 2016). In addition, these literatures put the rank of Ethiopia number one in terms of chronic undernourished and food insecure households. It accounts that 33 million of people face this challenge and more than 35% of the total households' face food insecurity at the national level (Endalew, Gashaw & Solomon, 2016).

To reduce and/or prevent poverty and hunger, many countries in the developing world increasingly recognized that social protection measures have paramount role. The role of social protection in preventing people entering into poverty, and in reducing the duration of poverty is well known (FAO, 2015). Protecting households against shocks through social protection not only decreases poverty temporarily but also enables growth by allowing poor households to create and protect their assets, and allocate resources to risky but highly rewarding production activities (Robert *et al.* 2003). Social Protection (SP) program has positive impacts on local communities and economies to increase and diversify their food consumption, child and maternal welfare as well as fosters more investment in the education and health of children, and reduces child labor (FAO, 2015). For the chronically food insecure people, SP programs appear as innovative and radical solutions, even though they vary from place to place (Food Sovereignty Brief, 2013).

Productive Safety Net Program (PSNP) is part of the national SP policy in Ethiopia. PSNP is explained in the policy as one of the food security programs designed to protect food insecure households through transfer of cash and food items during times of shocks such as drought and other natural hazards (MoLSA, 2012). Ethiopia has launched PSNP as SP program in 2005. Hence, the PSNP became a principal food security strategy of Ethiopia. It was originally designed to benefit 5 million chronically food insecure people in targeted chronically food insecure people. The implementation of PSNP in Ethiopia, therefore, witnessed an enhanced food security strategy through saving life and asset protection through the predictable transfers though gaps in achievement between the regions and beneficiaries have been realized. Furthermore, the program has had some positive impacts in terms of improving the life of affected people and help asset building. In addition, the severity food insecurity Ethiopia is very high in urban area (Lavers, 2016; Messay, 2018).

Recently, the Government of Ethiopia (GoE) has shown a strong commitment to SP to sustain economic growth while protecting the social and economic rights of citizens and preventing social disintegration and instability. In order to reach the poorest part of urban population, the Ethiopian government developed a five-year phase (2016/2017-2020/21) Urban Productive Safety Net Programme (UPSNP) in urban areas to address poverty and vulnerability of urban poor living below the poverty line. According to the 2016 report of Ministry of Urban

Development and Housing (MoUDH), though there is low level of urbanization, there is high rate of urban growth in the big and small cities of Ethiopia. It is considered as an essential element to make Ethiopia a middle income status by 2025. Following rapid urbanization, poverty has become intensified in urban centers. The total national poverty head count in 2011 was 29.6 percent (30.4 percent in rural Ethiopia and 25.7 percent in urban areas). Poverty rates in Addis Ababa and Dire Dawa were as high as 28.1 percent and 28.3 percent, respectively. The poverty gap index is estimated to be 8 percent in rural Ethiopia and 6.9 percent in urban Ethiopia, (CSA, 2011). In large cities, poverty has been falling, but not as fast as in rural areas and smaller urban centers. From 2005 to 2011, consumption growth was negative for the poorest 15 percent of the urban population and for the majority of households in Addis Ababa as wages did not increase to compensate households for the rising food prices that they faced. One-fifth of Ethiopians' urban population lives in Addis Ababa and reducing poverty rates in this area and other large urban centers is a key priority toward addressing poverty reduction in Ethiopia.

UPSNP was launched in September 2016 starting its implementation in the major cities/towns of the regional states, as well as in Addis Ababa and Dire Dawa. About 604,000 urban poor households in these cities were targeted to obtain support. Out of this, three-fourth of the beneficiaries were planned to be targeted from Addis Ababa taking into account the large size and the relatively high poverty rate records of the city. The long-term program framework has an objective of reaching 4.7 million poor in 972 urban areas (MoUDH PIM, 2016). The first round of targeting was completed in 2016. Households living in Gulele sub-city were also the first intervention beneficiary from 10 sub-city of Addis Ababa. From the sub-city four highly populated *woredas* and most of those are oldies household and slum areas of among Addis Ababa city *woredas*. This area includes the *Addisu Gebya*, *Kechene* and *Shiro-meda* (WB, 2015). Following the recent implementation of the UPSNP and there is no sufficient related study in this area. Observation of several challenges was made in terms of improper implementation of the program in study area. This study aims at clear identification of the urban community root causes of household food insecurity, determinant related to participation in UPSNP. Moreover, it will try to identify what the effects of PSNP in urban poor are.

1.2.Statement of the problem

In the face of shocks, such as natural disasters, rising food and fuel prices, loss of employment, and many other problems, SP plays an important role in limiting the need for negative coping strategies (IEG, 2011).SP constitutes policies and programs that are designed to protect people against risk and vulnerabilities. In Ethiopia PSNP implementation faces many challenges besides to improve the food security status of households these challenges include the poor process of targeting the poor is froth with favoritism, corruption as demonstrated by the high inclusion ratio of non-poor households in the program (Fekadu and Ignatius, 2009). Other challenges that negatively affect the program include weak institutional linkages, lack of active community participation in the decision-making process and the community also preferred change financial transfers from cash payments to in kind (Muluken, 2019).

A number of studies conducted in different parts of Ethiopia show that PSNP has a positive impact in terms of improving the livelihood of rural community (e.g. Andersson *et al.*, 2011; Debela and Holden, 2014; Gebresilassie, 2014; Mohamed, 2017; Diriba *et al.*, 2017; Zoellick, 2014). Specifically, Debela and Holden (2014) indicated the positive effect of PSNP on children through providing short-term nutritional benefits. Similarly, Zoellick (2014) found out the positive effect of PSNP through preventing households from selling productive assets; facilitating new investment, income increase, reductions in stunting and an increase in household food provisions, infrastructure as well as food security for households. Furthermore, PSNP helps beneficiaries for consumption smoothing and asset accumulation (Diriba *et al.*, 2017).According to Misgana (2018), the amount of income and inflation has significant impact on beneficiaries' food access stability, because most of them access their food by purchasing from market. Additionally, the program's involvement in the environment aspect has importance in bringing a healthy environment for dwellers by reducing pollution, minimizing runoff, mitigating heating, improving land productivity, enhancing soil fertility restoration and contributing for the health of communities (Misgana, 2018).

On the other hand, some scholars have found out that PSNP has negative impact on the rural community (e.g. Mamo, 2011; Hayalu, 2014; Beshir, 2011; Gilligan *et al.*, 2009; Sabates and Devereux, 2010; Adimassu and Kessler, 2013). Some of the negative consequences of the PSNP program were developing sense of dependency syndrome (Hayalu, 2014). In addition,

households participated in this program are often failed to enhance asset accumulation. The negative effects of PSNP on welfare/asset building and consumption were also found by other researchers (Beshir, 2011; Mamo, 2011; Gilligan *et al.*, 2009; Sabates and Devereux, 2010), PSNP has negative effect. Furthermore, Adimassu and Kessler (2013) reported that PSNP has also negative effect on soil erosion control measures.

According to Ephrem (2015), about 70% to 80% of population living in Addis Ababa city was living under poverty line. Though Addis Ababa is attaining fast economic growth, the number of poor residents is increasing simultaneously, which indicates the necessity of poverty reduction intervention in the city. The city administration of Addis Ababa considers urban PSNP as one of the best strategies to achieve its goal of sustainable poverty reduction and to overcome the food insecurity problems of the city. Addis Ababa poverty status report at the sub-cities and *woredas* show that, among 117 *woredas* with in 10 sub cities in Addis Ababa, 22, 69 and 26 *woredas* have high, moderate and low poverty, respectively. Gulele sub-city has 10 *woredas*, and has 4 high and 6 moderate poverty *woredas*, and has greater number of PSNP beneficiaries (21,599) than the other sub cities (World Bank, 2015). Hence, the program targeted Gulele sub-city, as this sub-city is known with high population pressure and poverty (Menen, 2019). According to information obtained during my internship period, the outcome or effect of the UPSNP in this sub-city has been weakened by several factors. Some of these factors included poor targeting practice of the eligible households, extreme poverty, inadequacy of payment, exclusion errors, nepotism and different societal problem and related cases.

Moreover, much of the research conducted in Ethiopia has emphasized on the roles, contributions and impacts of PSNP and status of food security (Ganta, 2011; Bethelhem 2014; Hermel, 2015; Knippenberg and Hoddinott, 2016; Diriba *et al.*, 2017; Abduselam, 2017; Misgana, 2018; Wondim, 2018). The purpose of this study is therefore to generate information that would help fill the gap on the importance of PSNP among reducing poverty rate in urban areas and determinants of participation in UPSNP. Hence, this study aimed to examine the effects of the UPSNP to enhancing the food security status of households in Gulele sub-cities.

1.3.Objectives of the study

1.3.1.General objective

The general objective of the study was to examine urban productive safety net program in Ethiopia, the beneficiaries' food security status, participation determinants and its contributions in Gulele sub-city, Addis Ababa.

1.3.2.Specific objectives

The specific objective of the study was to:

1. identify the root causes of food insecurity in urban areas of Gulele sub-city.
2. analyze factors affecting household's participation in the urban productive safety net program of study district.
3. examine the effect of productive safety net program in enhancing the food security status of the urban poor.

1.4.Research questions

This research intended to answer the following basic questions which are derivatives of the above-mentioned research objectives:

1. What are the major root causes of food insecurity in the study areas?
2. What are the factors influencing urban households' participation in the productive safety net program?
3. Does participation in the productive safety net program improves urban household's food security status in the study area?

1.5. Scope and limitation of the study

Even though the concern of the study is PSNP the largest SP program operating in sub-Saharan Africa, this study has limited spatial scope i.e. only ten *Ketenas* in four *Woredas* of Gulele sub-city, Addis Ababa. The study considers UPSNP beneficiary and non-beneficiary households from each *Ketenas*. This study was limited to identify factors that determine household's participation in the urban productive safety net program of four *Woredas* of Gulele sub-city. The participation of productive safety net program in the district was studied in ten representative *Ketenas* by surveying a sample of 271 households. I believed that the results of the study would contribute the efforts to improve the implementation of the ongoing UPSNP in Ethiopia. The

study, therefore, fills the gap in the existing knowledge in relation to UPSNP thereby provides new information in the study of food security in relation to PSNP in Ethiopia. Nevertheless, the result of this study was used as a reference for other similar areas.

Methodologically, this study used cross-sectional data gathered from sample households as well as the variables included were focused on socioeconomic, institutional and demographic related factors. Additionally, the study was limited to apply econometric model to examine the effects of PSNP in urban poor household food security and to analyze factor affecting household participation on the UPSNP. The model uses data from non-program participants in order to compare some outcome variables with the result of program participants. However, it can be difficult to find a comparison group (and often an observable) determination and ability that lead the households to join the program. Therefore, the study was undertaken to meet its objectives within the limitations mentioned.

1.6. Data validity and reliability

Reliability and validity measurements are important for the interpretation and generalization of research findings. To enhance the validity and reliability of the finding the researcher used both quantitative and qualitative methods of research. In order to make a triangulation and increase the validity of the data, the collected data were compared with other sources of information, particularly by interviewing the representatives of the food security and urban productive safety net office in each *Woredas* and Gulele sub-city. First, the number of members for Public Work (PW) and Direct Support (DS) on the household and individual level and secondary data of UPNSP implementation unit reports, working papers and articles was obtained. The second part of the information includes was a semi structured questionnaire data were collected from PSNP *ketena* households head and non-PSNP households head. The last part was a semi-structured interview about the specific details of the UPSNP in the specific *ketenas*.

Reliability addresses the ability of a measuring tool to provide the same result on repeated occasions (DeVaus, 2002; Schneider, *et al.*, 2003). To address the issue of questionnaire reliability and accuracy in this study, the pre-test method of reliability testing was used. Randomly selected household from Gulele sub-city *Woreda* 1 UPSNP participant and non-participant households were asked to complete the questionnaire and the results also indicate that there is strong relationship between dependent and explanatory variable. Similarly, in order to

improve the reliability of the data collected, all the interviews were recorded and field observation transcribed.

1.7. Ethical consideration

Ethical issues are crucial to social researchers who by the very nature of the research request individuals to share their thoughts, attitudes and experiences. Sensitive information might be obtained that other non-research efforts might be interested to know. To begin with, participant's consent was asked if they were willing to engage in the study process or not (Please see Appendix 12A). As cited in Creswell (2008), not only the researcher tried to get consent but should also inform the respondents that participation is voluntary. In addition, participants were notified of the confidentiality aspect in which information will be used for academic purposes. This study was started after an official letter from the Center for Food Security Studies, Addis Ababa University was obtained. The letter was provided to concerned bodies to get permissions and access all information and documents required for this study and the researcher considered all ethical issues.

1.8. Significance of the study

The information obtained from this study offers important insights regarding the root causes of food insecurity in urban areas by using problem tree analysis. In addition to identification of factor affecting the household participation on the program and the effect of UPSN program in enhancing the food security status of the urban poor was obtained through quantified assessment. Moreover, the results from this study can give valuable insights into the prospects of extending the program to other non-beneficiary *woredas* in Addis Ababa and other urban areas. The results of this study reveal some realities at the ground level, and this will benefit the community, policy makers and implementers on how to successfully increase food security and improve livelihood in urban areas. It is also essential for community-based organizations working in the study area and other areas with similar socioeconomic settings. Finally, the results of this study can be useful for academic researchers who would like to do a more in-depth analysis of the urban food security and on PSNP.

1.9.Organization of the thesis

This thesis consists of five chapters. Chapter one presents the general introduction of the thesis that includes: background of the study, statement of the problem, objectives and research questions, significance of the study, scope and limitation of the study. Chapter Two is devoted to review of related literatures. Relevant theories, concepts and empirical literature are reviewed and discussed. The third chapter deals with methodological issues, under which the general descriptions of the study area, research design, sampling technique and determination, the data sources and acquisition techniques as well as method of data analysis are discussed. The fourth chapter is also devoted to discussion and analysis of the findings. Finally, the fifth chapter is dedicated to conclusion and recommendation based on the findings/results of the study.

CHAPTER TWO: REVIEW OF RELATED LITERATURE

2.1. Theories related to poverty, and social protection/social safety net

There has been different thinking in understanding poverty and SP by various theorists. Various approaches have been introduced and applied to alleviate poverty and enhance development. For instance, Social Cognitive Theory, Malthusian Theory, Bessarabia Theory, Basic Needs Theory, The Right-Based Theory and the Social Capital Theory. This study considered the Basic Needs Theory and Right-Based Theory because, both are theories relevant to SP, being one means of addressing extreme poverty especially by state, are discussed.

The Basic-Need Approach: The basic needs theory formulated by International Labor Organization (ILO) and World Bank (WB) emerged in 1976 emphasizing on the importance of satisfying people's basic need rather than focusing on economic growth of a country. It directed focus on the need or deficiency of poor people. Thus, aids in the form of donation are recommended to bring the poor above poverty line. As the poor gets out of poverty, aggregate demand level increases, supply of basic goods and services increases, and improve individuals' participation in the process (Degefa, 2008).

The Right-Based Approach: In the late 1990s, the United Nations Development Program (UNDP) began to raise awareness about rights-based approach viewpoint to development. As stated in Sepulveda and Nyst (2012), poverty and discrimination are inherently linked, each being a cause and consequence of the other which makes poverty a major human rights issue. People living in poverty experience discrimination because they are poor. According to this approach, the focus of poverty alleviation efforts is fundamentally shifted from a charity or needs-based approach, towards a concentration on rights and entitlements, which in turn give rise to obligations on the part of the State to ensure that all individuals are able to enjoy access to a minimum essential level of economic, social and cultural rights, including an adequate standard of living, equally and without discrimination.

Rights-based approach emphasize the legally-mandated human right that every person has to social security and protection, while justice-based approaches appeal to an ethical view that all people, particularly the poorest and most vulnerable, should have access to SP. Based on the right-based approach, there is a symbiotic relationship between human rights and SP. As per the office of the United Nations High Commissioner for Human Right stated, SP can play a

fundamental role in addressing the needs of people living in extreme poverty, tackling inequality and realizing human rights. It can enable transferring resources to those living in extreme poverty and allowing beneficiaries to generate income, protect their assets and accumulate human capital. SP programs have the potential to contribute to the realization of a number of economic, social and cultural rights, such as the right to an adequate standard of living including the right to adequate food, clothing, and housing as well as the rights to education and health (Sepúlveda and Nyst, 2012).

2.2. Concepts and definitions

2.2.1. Food security

Food security has been a development and equity concern for many decades. As Sen pointed out over three decades ago, ‘starvation is the characteristic of people not having enough food to eat. It is not the characteristic of there being enough food to eat’ (Sen, 1981). The definition that is still most widely used was coined at the 1996 World Food Summit. It states that ‘food security exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life’ (FAO, 2006). The most notable difference between this definition and pre-1996 ones is the shift from a narrow focus on food production to a broader conceptualization that encompasses four key dimensions: availability, access, utilization and stability.

Food insecurity is a situation in which the individuals of the society have neither the physical nor the economic access to the nourishment they need (Reutlinger, 1987). It also is a situation that exists when people lack secure access to sufficient amount of safe and nutritious food required for normal growth and development and active and health life (WFP, 2014). A household is said to be food insecure when its consumption falls to less than 80% of the Minimum Recommended daily Allowance (MRA) of caloric intake for an individual person to be active and healthy. It is dynamic phenomenon: its impact varies depending on its duration, its severity and the local socioeconomic and environmental condition (EC, 2009). On the basis of temporal dimension, two types of household food insecurity can be distinguished: chronic and transitory food insecurity.

Chronic (permanent) food insecurity: refers to a continuously inadequate diet resulting from lack of resources to produce or acquire food (Reutlinger, 1987). It is argued that chronic

food insecurity at the household level is mainly a problem of poor households in most parts of the world.

Transitory food insecurity: refers to a temporary decline in the households' access to enough food. It results from instability of food prices, production or incomes. The worst form of transitory food insecurity is famine. Hence, transitory food insecurity faced by farm households should be understood in the study as a seasonal food shortage of any magnitude ranging from mild to severe. We should also note here the concepts of transitory food insecurity and seasonal food shortage are synonymous and will be used interchangeably.

2.2.2. Social protection (SP)

SP is a program that focuses on provision of cash or in-kind transfer to the poor as means of reducing poverty and economic and social vulnerability (FAO, 2015). It also a program that concerned with protecting and helping those who are poor and vulnerable, such as children, women, older people, people living with disabilities, the displaced, the unemployed, and the sick. WFP's definition of SP is "a broad set of arrangements and instruments designed to protect members of society from shocks and stresses over the lifecycle. It includes social assistance for the poor, social insurance for the vulnerable, labor market regulations and social justice for the marginalized" (WFP, 2014a).

There are ongoing debates about which interventions constitute social protection, and which category they fit under, as SP overlaps with a number of livelihoods, human capital and food security interventions (Harvey *et al.*, 2007). SP is commonly understood as all public and private initiatives that provide income or consumption transfers to the poor, protect the vulnerable against livelihood risks and enhance the social status and rights of the marginalized; with the overall objective of reducing the economic and social vulnerability of poor, vulnerable and marginalized groups (Devereux & Sabates, 2004: i). This definition is in line with usage in international development, and may be different from social policy definitions in high-income countries. SP is usually provided by the state; it is theoretically conceived as part of the 'state-citizen' contract, in which states and citizens have rights and responsibilities to each other (Harvey *et al.*, 2009).

2.2.3. Social safety nets program around the globe

Historically, transitions and crises have often opened new space for Social Safety Net (SSN) building. Safety net program is designed to provide people who are vulnerable to poverty, living in poverty or who are facing food insecurity and other forms of deprivation with predictable and reliable support (WFP, 2017). Around the world, 70 percent of SSN programs were introduced after a major transition. For example, vouchers and cash transfers are implemented as social safety nets in both developing and high-income countries. In high-income countries, SP is an institutionalized feature of a social contract between the State and citizens. In the United States, about 25 million people, or one-twelfth of the population benefit from the national food voucher programme, called the Supplemental Nutrition Assistance Programme (SNAP). SNAP is the largest voucher programme in the world, with a budget of about US\$37.5 billion/year (USDA, 2007).

Middle-East countries have extensive experience with safety nets in the form of consumer price subsidy programmes, particularly food-based ones (Alderman, 2002). In Europe, countries such as Italy protected the poor from the financial crunch by distributing targeted vouchers for use in supermarkets and other outlets. However, there are marked differences between these programmes and those in developing countries. SP in developing countries is not really an institutionalized system. As a result, informal arrangements often bear the burden of SP (Morduch and Sharma, 2002). More recently, the global financial crisis prompted dozens of countries to create new SSN programs, expand old ones, and improve overall administrative systems to enhance governance and make programs more efficient (IEG, 2011).

According to IEG (2011) indicates that without a safety net, poor families who are unable to afford their basic needs are likely to lose hope of escaping poverty; malnourished children are likely to grow up as poor adults; and, as a consequence of crises, vulnerable families are likely to face difficult choices between immediate survival and avoiding irreversible damage to their future welfare. Connection

A new World Bank review of the use of safety nets in twenty-two African countries shows that safety nets are critical instruments for reducing extreme poverty and increasing shared wealth (WB, 2014). The review noted that safety net programs in Africa are working to reduce poverty provide evidence that safety nets help households to meet their basic consumption needs, protect

assets such as livestock and invest in their children's health and education. Safety nets have evolved differently across Africa but are now taking hold as core poverty reduction instruments (Victoria, 2014).

Similar to other African countries, there are different SP programs to address the most vulnerable groups of people living both in urban and rural areas of Ethiopia. The SP policy of Ethiopia was developed by the Ministry of Labor and Social Affairs (MoLSA) in March 26, 2012. The policy gave much emphasis to vulnerable groups such as disabled and the aged. It also focuses on households and individuals who should receive social assistance in order to function properly, and achieve quality of living within the society (MoLSA, 2012). According to Ministry of Labor and Social Affairs (2012), SP in Ethiopia consists of a set of formal and informal intervention that aim to reduce social and economic risks, vulnerabilities and deprivations for all people and facilitates equitable growth. It consists of safety nets, social insurance, health insurance, livelihood and employment schemes, and improving basic services. Setting up a sustainable SP system in Ethiopia is part of the progressive realization of the social and economic rights of citizens outlined in Articles 41 and 90 of the Constitution and an important step towards establishing the system required by a future middle income country (MoLSA, 2012).

Ethiopia has been implementing strategies, programs and projects through a variety of SP interventions; such as social insurance programme (pension), food security programme, health insurance, provision of basic social service, support to vulnerable children, disaster risk management, national nutrition programme, community based social support, urban household and grain export, support to older pension, support to persons with disability. These programs comprise public and private employees' or both the government and non-government organizations provide these services. However, these efforts lacked a comprehensive set of SP policy framework, strategy and clear action plans that take into consideration the context of the different regional states and city administrations. The multidimensional SP initiatives were found to be lacking standards and systems for tracking coverage, had issues related to accessibility and complementarities of programs, grappled with inadequate data management and exchange of information at all levels both vertically and horizontally among the different implementing bodies (UNDP, 2016).

2.2.4. Ethiopian PSNP as SP program

The government of the Ethiopia implements SP program in the form of cash or in-kind transfers or public works programs for chronically food insecure community (Care, 2014). Such type of SP in Ethiopia is known as PSNP. It was initiated by the World Bank together with other development to address food insecurity in the country. The PSNP has been operating in Ethiopia since 2005 in the rural parts of the country to smooth consumption of chronically food insecure households by providing transfers of cash and/or food during (Brown and Teshome, 2007; Care, 2014).The PSNP aims to reduce household vulnerability, protect household assets, improve household resilience and provide labor to create community assets (e.g. check dams and roads). In general, the target of the program is for graduate participants from food insecurity into sustainable food secure (Brown and Teshome, 2007).

PSNP has been serving as a major tool for SP to food insecure households, protecting assets, and creating community assets through direct and indirect/ public work activities. As stated in the MoA (2016), the public work activities involve those who are able-bodied to participating them in development activities such as water and soil management, construction of health posts, roads, schools. Thus, more than smoothening households' consumption, the program tries to enhance communities' livelihood by empowering households, building their resilience to shocks and stresses, and improving communities' physical environment and infrastructure. The Government has adopted a number of innovative and effective mechanisms to increase household, community and national resilience to climate shocks and stress; and to commit to a green, low carbon development path, making use of the country's significant renewable energy resources to power industrialization and urbanization. There are four phases PSNP implementation back ground in Ethiopia (MoUDH, 2015).

Phases 1 and 2: Right after the drought of 2002/2003, the government of Ethiopia formed the New Coalition for Food Security to identify key actions to break the cycle of emergency appeals which saved lives but did little to protect household assets and comprehensively address food insecurity in Ethiopia. This process led to a number of initiatives, including the PSNP. Another, parallel program the other food security program provided productive asset packages on credit and invested in socio-economic infrastructure in order to build household assets and enable graduation from the PSNP.

Phase 3: This phase of the PSNP saw significant expansion and some improvements in program design and implementation. Building on the successes and lessons learned of the previous phase, the PSNP was expanded into two new regions Somali and Afar.

Phase 4:“Resilience to shocks and livelihoods enhanced, and food security and nutrition improved, for rural and urban households vulnerable to food insecurity”. Ethiopian government’s response to the increasingly unpredictable weather patterns in the Horn of Africa. It is a country level program, with a theme of adaptation with spill-over benefits in terms of the contribution to climate change mitigation through carbon sequestration. It will cost £2.216bn, funded by the government of Ethiopia (14%) and nine donors. The new 5 year (July 2015- June 2020) phase of PSNP builds on findings from PSNP 3 regarding the contribution to date of PSNP to climate change mitigation and adaptation, and recommendations (developed through the DFID-funded Climate Smart Initiative, CSI) for how to further amplify these contributions through modifications to the transfer, public work and livelihoods components of the PSNP. PSNP 4 is expected to deliver continued declines in hunger and poverty for the poorest, most climate dependent rural Ethiopia by protecting them from weather induced production shocks and improving their ability to deal with shocks that do occur. The fourth phase of the urban and rural PSNP (2015-2020)is one major component of the Government’s strategy to address climate vulnerability, and contributes to both the adaptation and mitigation goals.

2.2.5. Urban productive safety net program

To implement the UPSNP, the Ministry of Urban Development and Housing (MoUDH) has developed an Urban Food Security and Job Creation Strategy, which was approved by the Ethiopian government on May 8, 2015. The strategy aims to reduce poverty and vulnerability among the urban poor living below the poverty line over a period of 10 years (MoUDH PIM, 2016). Following this, the Federal Urban Job creation and Food security agency was set up to implement the program. Since the UPSNP was the first program of such kind in urban areas, there was an agreement between several stakeholders to incorporate a research aspect that closely tracks the progress of the program.

As part of the initiative to tackle the problem, the government in collaboration with World Bank launched the UPSNP with the objectives to reduce urban poverty and vulnerability of the urban

poor living below the poverty line. This will be achieved through provision of cash transfers, financial and technical support to access livelihood opportunities, building the capacity of institutions to effectively deliver this support, and developing core systems for delivery of safety nets and complementary livelihood services (MoUDH PIM, 2016).

The government extended the productive safety net in to urban areas to alleviate food insecurity since 2016. Within the framework of the National SP Policy, the Ministry of Urban Development and Housing has developed Urban Food Security and Job Creation Strategy. As stated in MoUDH (2016), the UPSNP has the objective of reducing poverty and vulnerability among the urban poor living below the poverty line over a period of 10 years in a series of five-year phases. The project is started its pilot implementation in 11 cities including the nine regional capitals (Adama, Assayita, Asosa, Dessie, Gambella, Hawassa, Harari, Jijiga, and Mekele), and the administrative cities (Dire Dawa and Addis Ababa). Three-fourth of the beneficiaries will be from Addis Ababa due to its large size and relatively high poverty rate record. Programme design and implementation have undergone various changes from previous rounds, aiming to strengthen the programme and improve its outcomes (MoARD, 2016).

The Governments with a permanent lack of labor capacity in their household Permanent Direct Support (PDS) now receive payments during 12 months rather than six months per year. Pregnant and lactating women and caregivers of malnourished children will move from PW to Temporary Direct Support (TDS) from four months of pregnancy until the child is one year old or for as long as the child is malnourished. PSNP4 also includes co-responsibilities for PDS and TDS clients, including the need for clients to take up antenatal and postnatal care services and attendance of behaviour change communication sessions. These co-responsibilities are not punitive; non-compliance does not lead to withdrawal from the programme or transfers being withheld (Vincenzo and Keetie, 2018).

2.2.6. Social protection and food security

The improved nutrition through integrated linkages to Social Services and Social Cash Transfer (INSCT) pilot project falls under the umbrella of PSNP4. It is implemented by the Ministry of Labor and Social Affairs (MoLSA), with support from UNICEF and Irish Aid, in collaboration with the regional and *woreda* level representatives of the Ministry of Agriculture and Natural Resources (MoARD), the Ministry of Education (MoE), and the Ministry of Health (MoH). The

pilot aims to improve the uptake of social services by direct support client households, improve the knowledge, attitudes and practices of direct support client households regarding nutritional, sanitary, health, child protection and educational behavior, and contribute to a better understanding of the roles and responsibilities of actors such as social workers and community-based committees in achieving improved outcomes (Schubert, 2015). A key component of this pilot is the employment of social workers that operate at *woreda* and *ketena* level to undertake case management of direct support clients and Collaborate with Community care Coalitions (CCCs) for purposes of monitoring and follow-up, particularly in relation to the newly introduced co-responsibilities. To provide income support and increase employability of beneficiaries, UPSNP has three-phase integrated model or pathway.

It is important for SP to consider food security and nutrition explicitly in its design and targeting, because SP is usually designed as an anti-poverty measure, and food insecurity is related to, but not the same as, poverty or income insecurity. For example, the choice of SP instrument (e.g. cash or food transfers) must be informed by an assessment of how local markets and local producers will respond to injections of either cash or food, and the impacts of social transfers on child nutrition often vary depending on whether mothers or fathers are targeted as recipients. Higher incomes do not always translate into improved food security and nutrition. There is, of course, a clear relationship between SDG1, which refers to poverty “in all its forms”, and SDG2, which focuses on hunger. People need to be well-nourished to take advantage of assets and economic opportunities, incremental income is used to purchase food, and poverty lines are often calculated on consumption expenditure or the cost of a food basket. So SP that reduces poverty should also reduce hunger, but not as much as it could do unless it is designed in a nutrition-sensitive way.

2.3. Empirical literature reviews

Plenty of studies have been conducted on the role of PSNP in different parts of the world. For instance, a study carried out by Saifur (2016) in Bangladesh shows the impact of SSN on income generation and food consumption of poor people. The findings show that SSN program has positive effect on the livelihood pattern and income generation of the very poor people in the area under study. Similarly, study by Akter (2013) shows that in the year under study, about 68.0% PSNP beneficiaries reported that their food intake was increased; the place of treatment

changed from local doctor to government; 82.1% of respondents meet their clothing needs getting PSNPs money; 50.5% beneficiaries were earn 6000-8000 tk.

Mutuku's study focusing on public works programmes as a component of broader SP programmes in Kenya (2014) revealed that 58 % felt that the wage rate was very low as compared to the urban cost of living. The wage rate paid was perceived by respondents as very poor. Majority (44 %) expressed that they earned an estimated total monthly income (wage rate and earnings from other sources like business) of Ksh.5000 to 10000 (USD. 63 to 126) that was perceived as low to improve livelihoods in the year under study.

There are a number of researches conducted in Ethiopia related to PSNP in relation to poverty, food security, asset holding and resilience of households. Yitagesu (2014) studied the impact of PSNP on the food security among Keberibeyah *Woreda* of Somali region. Results show that PSNP had positive impact on improving assets building particularly on livestock, production and consumer durable assets since joining the program as well as on the working behavior of the community through its public work project. The study concluded that the program slightly touches food consumption status of beneficiary households, because it is not insured that all members reliably gain access to sufficient quantity and quality of food to enjoy a healthy and active life.

Maier (2014) studied the impact of PSNP on food security and vulnerability among beneficiary households in Tigray, Amhara, Oromiya and Southern Nations, Nationalities and Peoples' Region (SNNPR). As the study results showed the PSNP in Ethiopia has a positive impact on the availability of food particularly during the lean season, when food needs are greatest. The annual food gap was decreased among PSNP households, while for non-PSNP households a slight increase in food gap was reported (Maier, 2014). However, no significant impact was found in regard to daily consumption of food (measured by a threshold of 2,200 kilocalories per day per person). There were no clear improvements observed over time concerning the caloric availability and consumption of households. Similar study was also conducted in Amhara, Oromia, Tigray and the Southern Nations, Nationalities, and Peoples' (SNNP) regions. Knippenberg & Hoddinott, (2016) studied PSNP's impact on households' response to drought, and their findings show that receiving PSNP transfers reduces vulnerability to drought by 57%.

Likewise, PSNP significantly improved household's recovery trajectory and increased resilience for beneficiaries.

However, some scholars conclude that PSNP has negative impact on the rural community (Mamo, 2011 and Hayalu, 2014). According to Mamo (2011), household failed to enhance asset accumulation if they are incorporated under PSNP. Some of the negative consequences of the PSNP program were developing sense of dependency syndrome (Hayalu, 2014). Similarly, Adimassu and Kessler (2013) reported that PSNP has also negative effect on soil erosion control measures. In addition, households participated in this program are often failed to enhance asset accumulation. According to the earlier researchers (Beshir, 2011 and Gilligan et al., 2009) PSNP has negative effect on welfare/asset building and consumption.

On the other hand, Misgana (2018) studied the contribution of UPSNP to households' livelihood improvement and environmental protection in Addis Ababa city. The findings showed that the UPSNP has contributed in improving the income and food security/access status of the beneficiary households within the one-year support period in the year under study. Statistically significant relationship was found between UPSNP and food security status of the beneficiary households. This study therefore investigated both the positive and the negative effects, with the main research question being: Does participation in the productive safety net program improve urban household's food security status in the study area?

2.3.Literature gap

From the above theoretical and empirical literature reviewed, it can be understood that most of the study focused on the social safety net in urban areas of other part of the world (other than Ethiopia) and specifically in rural areas of Ethiopia. They have studied the roles, contributions and impacts of PSNP and status of food security households. Since the safety net program is newly implemented in Ethiopia, there is limitation in researches carried out in this study topic. It has been more than three years that the Urban PSNP has started its intervention in 11 major cities of Ethiopia, Addis Ababa being one of them. Therefore, studying the root causes of urban food insecurity, determinants of participation on UPSNP, food security status and improvement of beneficiary households in their livelihoods after joining the program has paramount importance in generating information about their status change as well as serving as a baseline for assessing

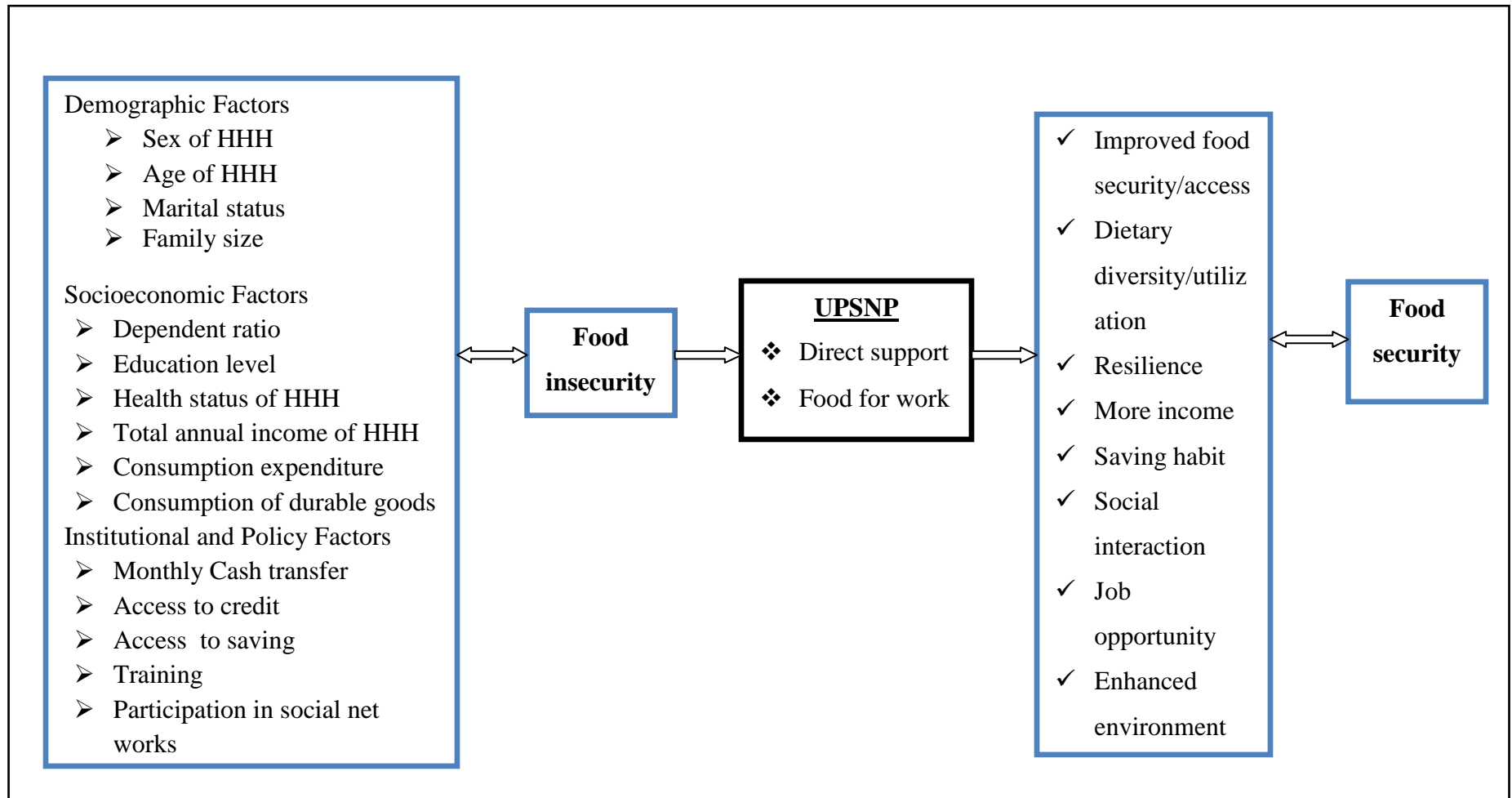
the program's impact after some year in the future. Besides, it has further importance in allowing the program implementers to understand the real situation of the beneficiaries and to take appropriate measures for effective implementation of the program in Addis Ababa as well as other cities of Ethiopia. In this case, it will be possible to properly alleviate poverty and vulnerability of the urban poor. So, this study tries to fill the knowledge gap answering root causes of food insecurity and the UPSNP's effects to improve livelihood of beneficiary households specifically in Addis Ababa, Gulele sub-city of *Woreda* one, four, seven and nine.

2.4. Analytical framework

As shown in Figure 2.1, a number of factors influence household's food insecurity and their participation in UPSNP. These factors are classified as demographic factor, socio-economic factors and institutional factors. For instance, sex as a demographic factor influence household food insecurity as female-headed households compared to male-headed households are more affected. Females are most likely to take care of their extended families, and will usually sacrifice their food intake to feed other members of their households, and hence, threatened by food insecurity and moreover they are most likely to be single parents than their male counterparts. In terms of age, young people are economically active than old people and can operate in challenging jobs within the labor market. Households with old age heads are exposed to chances of food insecurity because they might be more retired and older members to feed. Similarly, household heads with relatively better education are more likely to be food secure than those headed by uneducated (illiterate) household heads. It is explained in terms of contribution of education on working efficiency, competency, diversify income and becoming visionary in creating conducive environment to educate dependents with long term target to ensure better living condition than illiterate ones. Similarly, total annual income of household is important factor influencing household food insecurity. Household that has earned from different sources was in a better position to have access to food. It is obvious that income earned from any source improves the livelihoods of the household. High-income families are less likely to be food insecure.

However, in order to reduce urban food insecurity and to improve their livelihoods, food security and nutrition and resilience to shocks and those factors UPSNP have been implemented over the last three year. There are two components of UPSNP: transfers public works (Food/Cash-for-

Work) and direct support for ‘non-able bodied’ beneficiaries (i.e. chronically illness, disabled or aged). This program effects household food security: it improves household’s access to food security, dietary diversity /utilization/ at household level through enabling beneficiaries, generation more income, more job opportunity, better saving culture and more resilient and protected environment. Hence, the expected final outcome of participating in UPSNP is improved household food security.



Source: Formulated from several literature reviewed, 2020.

Figure 2.1: Analytical framework of the study.

CHAPTER THREE: DESCRIPTION OF THE STUDY AREA AND RESEARCH METHODS

3.1. Description of the study area

The study was conducted in Addis Ababa specific area of Gulele sub-city. Addis Ababa is the capital city of Ethiopia, located at 9°03'N latitude and 38°75'E longitudes coordinates. The projected population of Addis Ababa in 2017 was 3,433,999 and the city is divided into ten sub-cities named as Arada, Addis Ketema, Yeka, Kirkos, Lideta, Kolfe, Akaki Kaliti, Nifas Silk Lafto, Gulele and Bole. Under each sub-city, there are *Woredas* and *Ketenas* which are the lowest units of administrations. The city is simultaneously experiencing high rates of economic growth and urbanization having 25% of the urban population of Ethiopia (UN-HABITAT, 2017; World Bank Group, 2015). According to the State of Ethiopian Cities 2015 Report 2, Addis Ababa's share in GDP accounts for 29% of the total urban centers (UN-HABITAT, 2017). Addis Ababa is also the political center being the head quarter for the African Union and United Nations Economic Commission for Africa.

As depicted in Figure 3.1, Gulele sub-city which is one of the ten sub-cities of Addis Ababa is located in the northern part of the city. Within the city, it shares borders with four sub-cities. While Addis Ketema and Arada sub-cities borders Gulele sub-city to the South-West and South-East respectively, Kolfe Keranyo and Yeka sub-cities are to the West and East of this sub-city, respectively. To the north, Gulele sub-city shares borders with the Oromia National Regional State. Gulele sub-city covers 3,119.09 hectares (31.19 sq.km²) of land which is 6 percent of the total land area of the city. This makes Gulele the sixth largest sub-city in Addis Ababa. The total projected population in 2017 was 137,690 male 147,175 Female total 284,865 populations. It has ten *Woredas* (or districts) administered under its jurisdiction and with population density per sq. m: 9,438.9 (UN-HABITAT, 2017). UPSNP implementation guideline indicates that for the first-round intervention, 35 *Woredas* from 117 *Woredas* of ten sub-cities were beneficiaries of UPSNP of Addis Ababa. The study has chosen four *Woredas* from Gulele sub-cities namely: *Woreda* one, four, seven, and nine are the beneficiary *Woredas* of UPSNP in first round and the study also targeted on those *Woredas* from the sub-city purposively following the intensity of UPSNP program implementation (Figure 3.1).

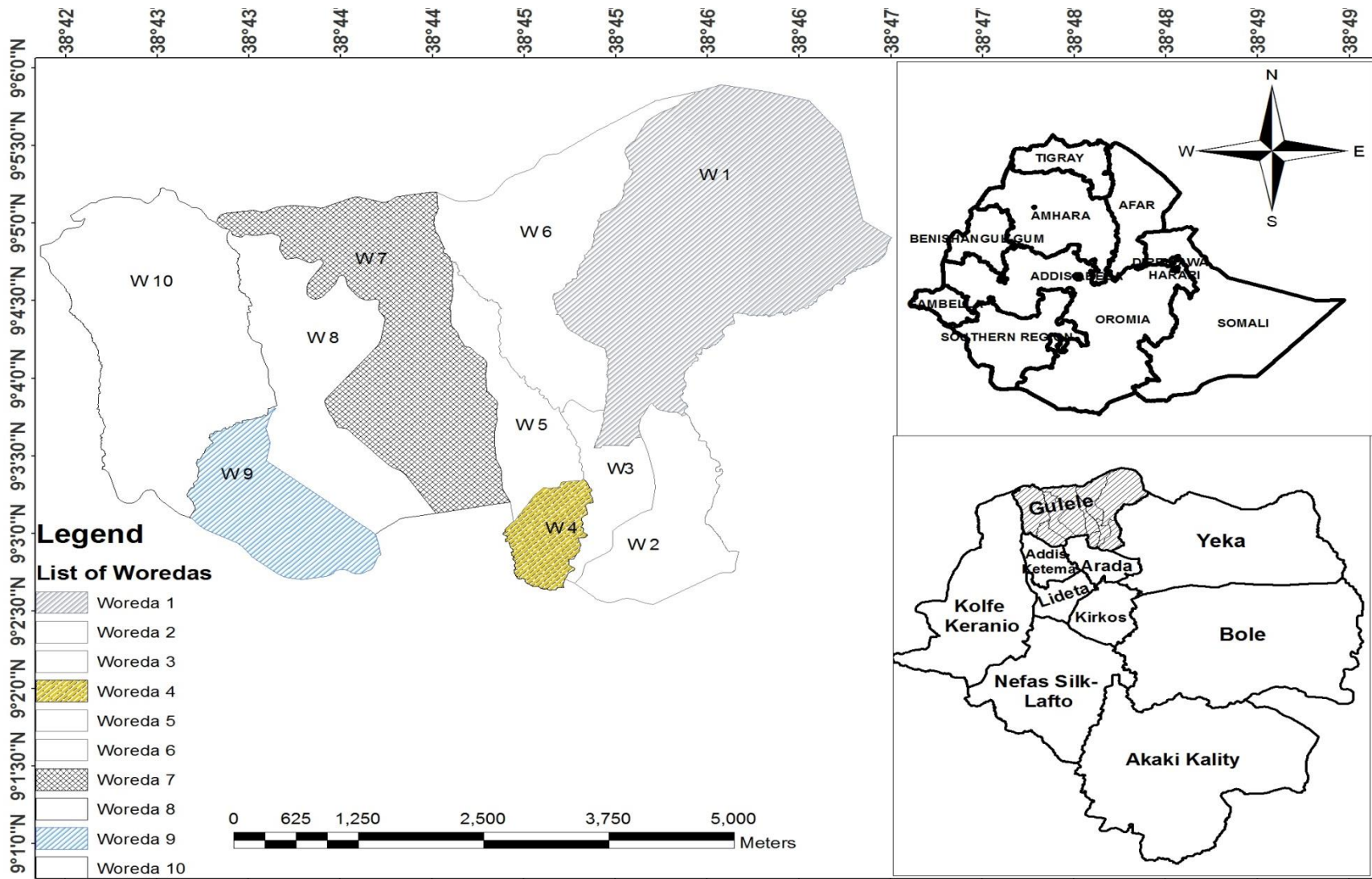


Figure 3.1: Location of Gulele sub-city in Addis Ababa city.

Source: [http://www.addisababa.gov.et/fi/web/guest/Gulele sub-city](http://www.addisababa.gov.et/fi/web/guest/Gulele%20sub-city) Retrieved at 6:20pm June 1, 2020.

3.2. Research design and approach

This study employed a cross-sectional research design. Because, cross sectional research design is appropriate to study different units (e.g. households, *ketena*, *woredas*, sub-cities and cities) at a given point in time. This cross-sectional research design was describe the characteristics of a particular individual or a group and determining the frequency with which a variable occurs or its relationship with another variable. In other words, the study analyzing whether a certain variable is associated with another comprises a diagnostic research study (Panneerselvam, 2004). Mixed approach or both qualitative and quantitative was used to collect data from both primary and secondary sources in order to produce a comprehensive analysis of the study.

Qualitative Approach: used in order to gain a deep understanding about the safety net program: its main activities, its contribution to improve households' livelihood and root causes of food insecurity condition of beneficiary households, the public work activities undertaken and perception of respondents towards the program's implementation (targeting, training access, graduation and public work activities among beneficiaries). Semi-structured interviews, focus group discussions and observation were carried out to gather qualitative type of data.

Quantitative Approach: involves the measurement of quantity or amount and used to quantify and see the relationship among variables. Household survey was carried out to conduct a cross-sectional study to collect data on the socio-economic and demographic information of households, causes of food insecurity of study area and determinants of household participation on UPSNP and effects of this program in enhancing food security of pro-poor households. Various available statistical and econometric methods are employed for analysis in such research. In addition it includes correlation and binary and logistic regressions analysis the relationship among variables.

3.3. Sampling technique and sample size determination

Multi-stage sampling technique was used to select study household. At the first stage, Gulele sub-city which was densely populated was purposively drawn. The rapid growth of urban population both natural and through migration, has put heavy pressure on public utilities like housing, sanitation, transport, water, electricity, health, education and so on in the selected sub-city (Rai, 2017). Similarly, UN- HABITAT (2017) stated that rapid and uncontrolled demographic growth and spatial expansion in Addis Ababa in general and Gulele sub-city in particular has resulted in considerable damage to the environment, which today is suffering from high levels of water and air pollution, soil degradation and contamination. Similarly,

densely populated sites can impose pressure of the food insecurity households. At the second stage, four *Woredas* from Gulele sub-city, namely: *Woreda1*, *Woreda4*, *Woreda7* and *Woreda9* were purposively selected on intensity of UPSNP program implementation. At the third stage, out of the twenty eight *Ketenas* ten urban *Ketenas* was randomly selected for this study. Because of population are relatively similar in socio-economic, livelihood and geographical locations. Hence, a stratified random sampling technique was employed to stratify people living in the selected *ketenas* in to two strata, namely UPSNP participants and non-participants. The sample size for the study is identified by using Cochran's (1977) formulas.

$$n = \frac{pqZ^2}{u^2}$$

Where,

n = Sample size required

p = The estimated proportion of UPSNP participants an attribute that is present in the population (expected prevalence of participant households)

$q = 1 - p$ (P is the estimated proportion of participants an attribute that is present in the population)

Z = Z- Score (critical value associated with appropriately chosen level of confidence)

u = The desired level of precision or marginal error

To estimate the sample size, the expected prevalence for the Addis Ababa is not known for there were limited similar studies carried out. Therefore, assume $p=5$ (maximum expected prevalence). Accordingly, the desired level of precision 5% with 95% level of confidence the Z value equals 1.96. The sample size is estimated following the study by Misgana (2018). He estimates that the actual number of beneficiary may be between 15% - 20% percent. The researcher wants to calculate this sample size with the precision of 5 percent.

$$\frac{0.2*0.8(1.96)^2}{0.05^2} = 246$$

Adding 10% contingency for expected non-response rate, the final sample size of beneficiary households for the household survey is:

$$n = 246 + 10\%(25) = 246 + 25 = 271$$

Based on this, 271 households head are determined as a sample size of study form stratum one 214 participant households (151 Public Workers and 63 Direct Supporters) and stratum two 57

non-participant households was selected (See Table 3.1). Both participants and non-participants data obtained from each *Woredas*. Specially, non-participant household head selected by *ketene* committees from second round beneficiaries. The following formula was used to determine the sample size of each stratum in the ten *Ketanas* of four *Woredas*.

$$P_i = n_i/N \text{ where; } P_i = \text{proportion of population included in stratum I,}$$

$$n_i = \text{the number of element}$$

$$N = \text{the total number of the population}$$

$$P_i = 271/1895 = 0.143$$

Table 3.1: Sample size *woredas*

Study <i>Woredas</i> and Sub city	Sample <i>Ketena</i>	Population size (N)			Sampling size (n)			Total sample	
		PSNP Participants		Non- PSNP Particip ants	Sample Households from Participant group		Sample Households from Non participant group		
		Public workers	Direct supports		Public workers	Direct supports			
Gulele sub-city & <i>Wored as</i>	01	3	73	13	26	10	2	4	16
		6	102	43	40	14	6	6	26
		8	246	106	62	35	15	9	59
	04	2	127	57	42	18	8	6	32
		4	110	53	47	16	7	7	30
	07	3	71	33	39	10	5	6	21
		6	39	27	33	6	4	5	15
		9	143	21	27	20	3	4	27
	09	2	58	19	11	8	3	2	13
		4	100	73	54	14	10	8	32
	Total		1,069	445	381	151	63	57	271

Source: Information obtained from study *Woredas* and own computation result, 2020.

3.4. Tools and techniques of data collection

This research employed household surveys questionnaire, FGD, KIIs and field observations in to collect the primary data.

3.4.1. Household surveys

Questionnaire based household surveys with 271 sample households was conducted in the study areas. Questionnaire-based survey was administered to sample beneficiary households by using a standard questionnaire after obtaining the consent of the respondents as a research

ethics. The questionnaire was translated in to Amharic for the purpose of simplicity and ease of communication between the enumerators and the respondents. The household survey obtained with public worker participants through face to face interview in once during when they were taking training at Entoto Poly Technique College and from direct support participants and non-participant of UPSNP was carried out by supporter of *ketena* committees through door to door survey. The data collection conducted based on the socio-economic and demographic information of households and to critically examine the causes of food insecurity of urban area. Moreover, information related to the main factors affecting household participation in the program, the effects of program on food security of beneficiary households, public work activities of the program and perception of beneficiary households and non-beneficiary perception of respondents towards the program's implementation (targeting, training, awareness of beneficiaries about the program, and adequacy of support related to food security) were obtained through household survey. Before starting the surveys, informing about the research objectives and contents was important to gate real information.

3.4.2. Key Informant Interviews (KII)

The study employed key informant interviews to get information on personal thought, experience and attitude related to UPSNP targeting practices. Interview is the most commonly used qualitative technique which can provide rich sources of data on people's experiences, opinions, aspirations and feelings (Kitchin and Tate, 2000). Four key informant interviews were carried out with one administrator of sub-city and *woreda* and at *woredas* level one beneficiary and non-beneficiary using semi-structured interview questions. Both beneficiary and non-beneficiary households were selected and interviewed to get data on the contribution of UPSNP's interventions on the livelihood and food security of urban households. Similarly, administrators from *woreda* and sub-city were selected and interviewed to examine the program proper implementation related to targeting groups, training, graduation status and public work activities.

3.4.3. Focus Group Discussions (FGD)

FGD is important in order to complement the information collection through surveys and semi-structured interviews methods. Two focus group with six to eight male and female household heads discussion from 03/01 and 02/09 in *Woredas* administration offices. The FGD was carried out before March 13/2020 COVID-19 epidemic disease breakout. The two separate focus groups were the under 45 age group (FGD 01) and the above 45 age group (FGD 02) FDG 01 consists of male and female *iddir* organizer, targeting committee member,

public work expert and direct support beneficiary. FGD 02 includes male and female community member and targeting committee member, urban greenery expert and direct support beneficiary. The discussion was carried out with a mix of program participation households headed and non-participant household heads. Topics related to causes of food insecurity, the effects of program in enhancing households' food security status, perception of participants' and non-participant towards the program, targeting, training, and graduations of the program beneficiary were discussed and the required information was collected.

3.4.4. Field observations

In addition to the above data collection method, the field observation was carried out to validate the information provided through primary and secondary data collection tools. Observation is a qualitative method whose objective is to help researchers learn the perspectives held by study households. Data obtained through observation serve as a check against participants' subjective reporting of what they believe and do (Mitchell, Fraser, 2015). One of the most important data collection techniques is observation. Field observation was used to cope up the ground really and to enhance the data collection from the other methods. Using checklists, the field visit was accompanied by photographing and informal conversation with people. This technique is also important to critically examine the intra households' food insecurity and program implementation in study area. Therefore, the study sites training and public works activities developed by UPSNP were included during the observation.

3.4.5. Secondary data collection

Besides the aforementioned data collection techniques and procedures, intensive desk review of published and unpublished literatures such as books, journals, articles, reports and e-resources was carried out. Different documents from four *woredas*, sub-city and Minster level reports, plans, and publications of various government departments and NGOs working in the area.

3.5. Technique of data analysis

Analysis of food security

Food security is supposed to measure the availability, accessibility, utilization and stability of food at the global, national household and individual levels. A state of food insecurity also expressed when the people lack of access to adequate and safe supply of food on stable basis. In other words, access to food at all times to enough food nutritionally a good quality for active and healthy life. To assess the food security status, there are a number of measurement

tools available of household and it differs based on the scope and purpose of the assessment. Likewise, a combination of tools was used to generate data. In this study, the Household Food Insecurity Access Scale (HFIAS) food security measurement was applied to analyze the food security status of study households.

Household Food Insecurity Access Scale (HFIAS)

Household food insecurity access scale which is an adaptation of the approach used to estimate the prevalence of food insecurity in the United States (U.S.) annually. The method is based on the idea that the experience of food insecurity (access) cause predictable reactions and responses that can be captured and quantified through a survey and summarized in a scale (Wehler *et al.*, 1992; Hamilton, 1997).

The HFIAS consists of two types of related questions. The first question type is called an occurrence question. There are nine occurrence questions that ask whether a specific condition associated with the experience of food insecurity ever occurred during the previous four weeks (30 days). Each severity question is followed by a frequency of occurrence question, which asks how often a reported condition occurred during the previous weeks. Each occurrence question consists of the stem (timeframe for recall), the body of question (refers to specific behavior or attitude), and two respondent options (0 = no, 1 = yes). There is also a 'skip code' next to each 'no' respondent option. This code instructs the enumerator to skip the related frequency of occurrence followed up question whenever the respondent answers 'no' to an occurrence question (Jennifer *et al.*, 2007).

Each HFIAS frequency of occurrence question ask the respondent how often the condition reported in the previous occurrence question happened in the previous four weeks. There are three response options representing a range of frequencies (1 = rarely, 2 = sometimes, 3 = often). First, HFIAS score variable is calculated for each household by summing the codes for each frequency of occurrence question. Before summing frequency of occurrence, the data analysis should code frequency of occurrence as 0 for all case where the answer to the corresponding occurrence question is 'no' (i.e., if Q1=0 then Q1a=0 if Q2=0 then Q2a=0 etc.). The maximum score for household is 27 (the household response to all nine frequency of occurrence question is 'often', coded response code 3); the minimum score is 0 (if the household respond 'no' to all occurrence questions, frequency of occurrence questions are skipped by the interviewer, and subsequently coded as 0 by the data analysis). The higher the

score, the more food insecurity (access) the household experienced. The lower the score, the less food insecurity (access) a household experience (USAID, 2007)

Table 3.2: The nature of the dependent variable with the corresponding code

Categories	How often did this HFIAS happen for the last 4 weeks?	Code
Food secure	If the answer is "No", in the last 4 weeks	1
Mildly food insecure	If the answer is "Rarely" (once or twice) in the last 4 weeks	2
Moderately food insecure	If the answer is "Sometimes" (3 to 10 times) in the last 4 weeks	3
Severely food insecure	If the answer is "Often": (more than 10X) in the last 4 weeks	4

3.5.1. Statistical model specification

Problem tree analysis

Qualitative problem tree analysis applied to identify the root causes of food insecurity in urban household of study area. This analysis method is important to find the cause and effects of dynamic community problems and to raise the scientific community based developmental solutions. The final analysis was conducted by using bar graph, percentage, and to summarize, interpret and conclude the result.

The survey data collected was edited, coded and entered into a computer for analysis using Statistical Packages for Social Science (SPSS 24) and “STATA Version 14” software. The study had used both descriptive statistics and econometric technique for analyzing the quantitative data. The descriptive statistical tools are very important to have a clear picture of the households included in the sample. It was applied for summary of statistics such as, percentage, table of frequency distribution, mean and standard deviations. Inferential statistics such as chi-square (for categorical variable) and t-test (continuous variable) were applied to examine the relationships between participation in UPSNP and household characteristics/factors.

The econometric technique used in the study was binary logistic regression model to determine the factors affecting household’s participation in the UPSNP and ordered logistic regression model examine the effect of PSNP in enhancing the food security status of the

urban poor. The models helped to describe the relationship between the outcome variable and a set of explanatory variables as well as effects of PSNP on household food security respectively.

Binary logistic regression model

The binary logistic regression is used to assess the relationship between independent variables and the dependent variable; where, the dependent variable is dichotomous. According to Gujarati (2004, p 581), binary logit is employed when a study has qualitative response variable, or regress and taking two values. In other words, the regress and is a binary, or dichotomous, variable. In regression, for $E(Y_i | X_{1i}, X_{2i}, \dots, X_{ki})$, where the X 's are regressors, both quantitative and qualitative and Y is qualitative, the objective is to find the probability of something happening. Hence, qualitative response regression models are often known as probability models and it was estimating as a function of individual characteristics typically using STATA statistical model such as logit or probit model. This was outcomes (determinants of household participation and the effect program on food security beneficiaries households) having probability of happening being either program participant or non-participant. The dependent variables have dichotomous values taking a value 1 if the households are participant on UPSNP and 0 otherwise. Thus, the binary regression is used in order to measure the association between the outcome variable and the independent variables.

The mathematical (functional) expression of the model is given as follows:

$$\text{logit}(Y) = \beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \dots + \beta_n X_{ni}$$

The functional form of the regression model estimates the factors that affect the household participation and food security of UPSNP beneficiary households in Addis Ababa.

$$Y_1 = f(X_1, X_2, X_3, X_4, X_5, X_6, X_7, \dots, X_{15}, E)$$

Where:

Y_1 = household participation; 1 if the respondent is participant, 0 otherwise

X_1 = Sex of household head; 1 if male, 0 female.

X_2 = Age of household head; in number and continuous

X_3 = Marital Status of household head; 1 if the households head Unmarried , '2' for Married, '3' for Divorced, '4' for Widowed and '5' for Separated.

X_4 = Family size of household head; in number and continuous

X_5 = Dependency ratio of household head; in number and continuous

X_6 = Educational level of household head; 1 if the households Did not attend formal education, '2' for Read and write, '3' for Completed Primary school, '4' for Completed High school, '5' for Completed higher institution education and '6' for Diploma and above

X_7 = Health status of HHH; 1 if the respondent is health, 0 otherwise

X_8 = Expenditure; household head annual consumption expenditure in Birr and continuous

X_9 = Monthly income from UPSNP; household head who participant in UPSNP monthly cash transfer from program in Birr and continuous

X_9 = Total annual income; respondent total annual income in Birr and continuous

X_{10} = Annual consumption durable goods; household annual expenditure for consumption durable goods in Birr and continuous

X_{11} = Total income from other livelihood sources

X_{12} = access to saving; 1 if the household head with access to saving, 0 otherwise

X_{13} = access to credit; 1 if the household head with access to credit, 0 otherwise

X_{14} = Training access; 1 if the households are have access to training, 0 otherwise

X_{15} = Participation in social net-works; 1 if the households are PSN, 0 otherwise

E =error term

The explicit estimable binominal logistic econometric model is formulating as follows for determining UPSNP household participation and effect on food security.

$$Y_1 = \beta_0 + \beta_1x_1 + \beta_2x_2 + \beta_3x_3 + \beta_4x_4 + \beta_5x_5 + \beta_6x_6 + \beta_7x_7 + \dots + \beta_{15}x_{15} + E$$

Ordered logistic regression model

The other model employed in the research was ordered logit. This is used to estimate the linkage between the food security and UPSNP. The linkage between the household food security and adoption this model were employed. In this variables has four outcomes hence the ordered logit categories dependent variables in to four 1, 2, 3, and 4. 1 Food secured, 2 for mild, 3 moderate and 4 food insecure according to (Stata. C, 2013) the model whereas follow

The probability of a given observation for ordered logit were

1 secured

$y(x) = [2 mild]$

3 moderate

4 insecured

Where $y(x)$ = status of food security condition of farm household

The ordered logit model is used to predict an ordinal dependent variable given one or more independent variables. Ordinal regression was enabling us to determine which of our independent variables (if any) have a statistically significant effect on our dependent variable. The following Assumptions checked. The dependent variable is measured on an ordinal level. The four independent variables are categorical or ordinal, Non multi-collinearity while, the independent variables are highly correlated with each other, proportional odds *i.e.* that each independent variable has an identical effect at each cumulative split of the ordinal dependent variable (Gujarati, 2004).

The order Logit model becomes for each category or order $Z_i = \beta_0 + \beta_1 \text{ sex} + \beta_2 \text{ age} + \beta_3 \text{ marital} + \beta_4 \text{ famsize} + \beta_5 \text{ health} + \beta_6 \text{ dependency} + \beta_7 \text{ education} + \beta_8 \text{ credit} + \beta_9 \text{ saving} + \beta_{10} \text{ cashincome} + \beta_{11} \text{ conpdgoods} + \beta_{12} \text{ training} + \beta_{13} \text{ psnw} + U_i$

Where:

β_0 = Y-intercept

$\beta_1, \beta_2, \dots, \beta_n$ are the slopes of the equation in the model

U_i = disturbance term/Error term

For this analysis post-estimation test were done after logistic regression. In order to test the existence of multi-collinearity, both continues and discrete explanatory variables were checked using Variance Inflation Factor (VIF). This statistical analysis indicates that there is no strong association among the variables. As a rule of thumb, if the VIF of a variable exceeds 10 that variable is said to be highly collinear and it can be concluded that multi-collinearity is a problem (Gujarati, 1995). And also, link test and goodness -of- fit test was calculated to auto correlation and appropriateness of data with model. The information gathered from focus group discussion, was analyzed qualitatively.

Marginal effect

The marginal effect of a predictor in a categorical response model estimates how much the probability of being food secures being the predictor variables changes as the predictor change. For a continuous predictor, the marginal effect is a partial derivative of the probability of being food secure respect to the predictor of interest. For a binary categorical predictor, it is the change in event probability when the predictor is changed between its levels. A measure of the overall effect of the predictor is the Average of the Marginal Effects (AME). It is also evident that there might be interaction among qualitative variables, which could lead to the

problem of multi-collinearity. To detect this problem, contingency coefficients were computed for each pair of qualitative variables.

3.6. Definition of variable and working hypothesis

Based on the review of the literature and practical experiences, explanatory variables which have logical and justifiable rational in determining households participation and the effect of PSNP on food security are identified. The variables were continuous and discrete variables in order to find out to answer to the research questions of the study. These are presented as follows;

3.6.1. Dependent variables

The dependent variable is factor determining household's participation in the UPSNP and the effect of PSNP on food security are identified. The household who has been participating in UPSNP, variables take on the value of 1 and the household who did not participate take the value of 0 for. In addition, the household food security status of the UPSNP beneficiaries and non-beneficiaries is the dependent variable measured using ordinal values. The ordinal values were obtained from HFIAS model, which was used to analyze the food security status of the study households.

The independent variables that used in this study sex, age, marital status, family size, health status, dependence ratio, education, credit, saving, cash from UPSNP, consumption durable goods, training, participation on social network.

3.6.2. Hypothesis

Based on the scope of the study the following hypothesis was made for outcome variable.

Hi= There is no relationship between productive safety net and explanatory variable.

Ho= There is a relationship between productive safety net and explanatory variable.

And

H1i= There is no relationship between productive safety net and food security.

H1o= There is a relationship between productive safety net and food security.

3.6.3. Independent variables

The independent variables of the model are those variables that were expected to have relationship with the participation in the PSNP and the effects on food security and the outcome variables were selected depending on available literature. The demographic, socio-

economic and institutional factors hypothesized to affect the dependent variable and outcome variables are the following.

Sex of household head (sexhhh): It refers to the sex of the household head taking a value of 1 for male and 0 for female. Labor supply plays a great role; due to lack of labor female headed household they are forced to rent their land. Male-headed households are in a better position to pull more labor force than the female-headed ones; sex of the household head is an important determinant of livelihood security in the study area. Based on this assumption, it is hypothesized that households who are female-headed, were more likely to gain from the program and probability of household to be participant will be higher for female headed than male headed.

Age of the household head (agehhh): It is continuous variable measured in years. Age of household head plays a significant role in increasing its own productivity by exerting his/her labor and also it may affect adoption to new technologies. Household head with young age will have strong labor which can produce more and seek new technologies to improve his/her livelihood. It is hypothesized that the probability of being food self-sufficient and preventing asset will be higher for young aged household heads. To make it precise, household head with old age above active and near to dependency age has a higher probability to be included in the PSNP program.

Marital status of household head (mars): A study by Cancian and Reed (2009:21) concluded that a household with a head and a spouse has a greater chance of avoiding food insecurity, because the spouse is likely to contribute to the means of getting food. It is argued that single household heads bear a large burden on the attainment of food as they usually enjoy a limited support structure (Kaloi *et al.*, 2005:70). There was a need to include this variable because limited information is known about the relationship between marital status and food security (Hanson *et al.*, 2007:1460). This question had four options for the participants: married, unmarried, divorced and widowed.

Health status of the household head (healthstatus): Health status of the household head in the study refers health conditions of the household to insure his food security. It helps to identify if the household has health problem and interferes with employment opportunities or doesn't interferes. It was expected that food security was seen differences with the health status of the household head. Although depending on UPSNP client categories in terms of

their health status of the household head, this question had two options (Dummy variable) for the participants (no health problem and have health problem).

Household family size/number (famsize): is a continuous variable measured in terms of numbers of family in the household. In rural areas those who have a large size of family numbers implies having high manpower for on-farm and off-farm activities which generates income and will alleviate food gap of the households at the same time in urban areas. The main hypothesis is that the farmer who has larger family size will be food sufficient with a better livelihood status.

Dependency: This is the ratio of children under age 15 and old age of above 64 to economically inactive member's (total dependency ratio) expressed in terms of adult equivalent. The existence of large number of children under 15 and old age of above 64 in the family could increase households' probability of being in poverty status due to the fact that the working age population (active labor force i.e. 15-64 years) supports not only themselves, but also additional dependent persons in the family (Abebaw, 2003; Hilina, 2005). Thus, it is hypothesized in this study that a family with larger number of dependent family members (high dependency ratio) has a higher tendency of participating in Governmental and Non-governmental poverty reduction programs like the one considered in this study, implying a positive relationship with the dependent variable.

Education level of household head (education): It is an essential factor for diversified activities in human life. The opportunity of employment is dynamic by its nature. This is due to the continuous improvement in the research findings and technological advances. Education level could measure the household's human capital and therefore attainment of higher level of education is expected to provide higher levels of household welfare (Datt *et al.*, 2000). So, since the program is for food insecure household's education level is hypothesized to have a negative effect on dependent variable (access of participating in the PSNP).

Monthly cash transfer /cash transfer/: is a continuous variable (measured in Birr) the PSNP delivered in two forms of activities both public works and direct support. Participation it have own payment or cash transferring system. On livelihood of participant it has positive impact.

Total annual household income (tot income): Annual income is a continuous variable and it is the amount of total income (measured in Birr) that a household has earned from different sources in the last twelve months. It is obvious that income earned from any source improves

the livelihoods of the household. High-income families are less likely to be food insecure. Yilma (2005), Abebaw (2003) and Ayalneh (2002) found that income variable has a significant positive effect on livelihood. Hence, it is expected that households who have large income, are better in their livelihood.

Consumption expenditure /expenditure/: Total food and non-food consumption expenditure of the household for different purposes is computed by converting the one month food and non-food expenditure.

Consumption of durable goods /conpngoods/: people have sufficient income or food secure has good housing and durable goods than food insecurity. The variation of participant and non participant income generating is varying and the durable good also have variation in households. It is hypothesized that consumption of durable goods will affect positively with achievement of household resilience.

Credit service /credit/: It is a dummy variable that measure access to credit. The rural credit can be classified into two namely, credit for artificial fertilizer as well as farm tools and credit for household asset building. The pre-intervention credit will be linked with credit for farm tools and fertilizer. It is expected that those who have got enough credit to buy inputs for their farm can easily be food secured than those who did not participate in the program. Ganta (2011) indicated that a household that had participated in credit for fertilizer and other farm tools purchase is more likely to be food secured which is hypothesized to be negatively associated with the probability of being included in the PSNP since the household might have better food security status compared to others. Hence it is hypothesized that credit and being PSNP participant are negatively correlated.

Saving: It refers to the saving habits of the household head taking a value of 1 for yes and 0 for no. Participation on PSNP has access to saving rather than non-participant. Saving have on livelihood of participant it has positive impact.

Training: it is one of the means by which program participant acquire new knowledge and skills that will help them achieve better job creation after graduation. It is hypothesized that training will affect positively with achievement of household resilience.

Participation in Social Net Works /institutions (psnw): it is a dummy variable measured in terms of capability if the household participating in different social networks. Traditional

social support mechanisms, locally known as *Iddirs* and *Equbs*, have also been providing support for the poorest communities in specific localities. 1 if the household is capable of participating in different social networks implies the household is in sustainable livelihood status, 0 otherwise.

The summary of independent variables related to the demographic, socio-economic and institutional and policy factors that could affect the dependent variables of the study households are presented in (Table 3.3).

Table 3.3: Description explanatory variable and its expected sign

Variables	Description	Variable type	Measurement	Expected sign
Sexhhh	Sex of the household head	Dummy	1 and 0	+/-
Agehhh	Age of the household head	Continuous	Year	+/-
Mars	Marital status of the household head	Continuous	Number	+/-
Famsize	Family size of household head	Continuous	Number	+/-
Dependency	Number of economically inactive members	Continuous	Number	+
Education	Education level	Continuous	Year	-
Health status	Health status of HHH	Dummy	1 and 0	+/-
Expenditure	Annual consumption expenditure	Continuous	Birr	+/-
Tot income	Total annual household income	Continuous	Birr	+
Conspgoods	Annual consumption durable goods	Continuous	Birr	+
CashPSNP	Monthly cash transfer	Continuous	Birr	+/-
Credit	Access to credit	Dummy	1 and 0	-
Training	Access for training	Dummy	1 and 0	+
Saving	Access to saving	Dummy	1 and 0	+/-
PSNW	Participation in social networks /institutions	Dummy	1 and 0	+

Source: Own definition based on literature (2020)

CHAPTER FOUR: RESULTS AND DISCUSSIONS

This chapter presents the main results and discussions of the study. It has four sub-sections. The first sub-section describes the socioeconomic and demographic characteristics of the sample respondent household with respect to identified explanatory variables. The second sub-section presents the root causes of household food insecurity of study area. The third sub-section discusses binary logit model for the factors affecting the household participation on productive safety net and fourth sub-section presents the food security status of study household measured using HFIAS and ordered logit model for identification of the effect of productive safety net program on household food security. The final sub-section presents the result of Focus Group Discussions (FGD) and Key Informant (KII) Interviews.

4.1. Demographic and socio-economic characteristics

This sub-section has described the household characteristics that explain the information on demographic, socio-economic and institutional characteristics such as age of the household, sex of the household, age of HHH, marital status of HHH, family size, health status, dependency ration, educational level, access to credit, access to saving, monthly cash transfer from UPSNP, total annual income, expenditure, consumption durable goods, access to training and participation on social network which is assumed that ether positive or negative influence of household participation on UPSNP and food security analysis.

Regarding the sex distribution of sample households 58.7% of the study HHS were female headed and 41.3% of them were male headed. Among the UPSNP participants, majority of them (57.9%) were female headed while 42.1 was male household head (Table 4.1). The result implies that female-headed households were more food insecure and hence participates in UPSNP than the male headed households. The result is in line with the findings of Girma (2012). He indicated that a compared to male-headed household, food insecurity status of female-headed household was worse. This might be due to males are to some extent more engaged in income generating activities than females. Similarly, concerning the health status, about 45.7% household head had health problem and 55.3% of the households had no health problem (Table 4.1). From the UPSNP participants, about 52.8% of households had health problem, and whereas 47.2% of them household no health problem. The chi-square result indicated that there is a significant variation between participants and no-participants at 1% significant level. This result might be due to the fact that health status of household head is criteria for inclusion in UPSNP, and hence increase the household decision to participate in the program.

Regarding access to credit services, only 16% of respondent households had access to credit while the majority of them (84%) had no access to credit. Non-participant's households responded availability of credit access for their own livelihood while program participants did not. As shown in Table 4.1, about 82.7% of UPSNP participants and 89.5% of non-participants responded that they had no access to credit services. The chi-square test result revealed that there is statistically insignificant association between participants and non-participants in terms of access to credit services.

Table 4.1: Demographic socio-economic and characteristics of study HHHs for dummy variables

Name of the variables	Category	Participant (N=214)		Non-participant (N=57)		Total value (N=271)		Chi2 -value (probability)
		Count	%	Count	%	Count	%	
Sex of HHH	Male	90	42.1	22	38.6	112	41.3	0.637
	Female	124	57.9	35	61.4	159	58.7	
Health status of HHH	Yes	113	52.8	11	19.3	124	45.7	0.000***
	No	101	47.2	46	80.7	147	55.3	
Credit access	Yes	37	17.3	6	10.5	43	16	0.214
	No	177	82.7	51	89.5	228	84	
Saving access	Yes	132	62	36	60.4	168	62	0.838
	No	81	38	22	39.6	103	38	
Training access	Yes	153	71.5	29	50.9	182	67.2	0.003***
	No	61	28.5	28	49.1	89	32.8	
Participation on social net work	Yes	145	67.6	35	61.5	180	66.5	0.367
	No	69	32.4	22	38.5	91	33.5	

Note: ***, **, *, show significance at $p < 0.01$, $p < 0.05$, and $p < 0.1$ respectively

Source: Computed from own survey (2020)

The results presented in Table 4.1 also show that about 62% of respondent households had access to saving services, whereas the remaining 38% of household had not access to saving. . With regard to the UPSNP participants, majority of them (62%) were participating in public work activities and continues access to saving services, while the remaining 38.1% had no access to saving. From the non-participant households, about 60.4% of the total respondents were engaged in saving and the remaining 39.6% did not. Protecting household asset from

depletion is also the other objective of PSNP. Though the statistical test shows no significant difference between UPSNP participants and non-participants, the result implies that households' participating in the program has better saving outcome than the non-participating households.

The results also show that about 67.2% of respondent households had access to training, whereas 32.8% of the respondent did not participate in any training activities. Among the UPSNP, 71.5% of them had access to training, whereas only about 50.9% non-participant had access to training. The chi-square test result also revealed that there is significant difference at 1% level between UPSNP participants and non-participants relating to access to training access. This finding has conformity with KII.

Regarding this, a 36-year-old interview from beneficiary male-headed household trainee averred:

'The sub-city and woreda Productive Safety Net and Food Security Office facilitates training for us in different time starting from we join this program. Now, I am taking training on textile garment /sewing/ skills and entrepreneurship from Entoto Poly Technique College. I saved money 20% in the past three years from public work payment and ongoing credit service. For the future, based on the training received, I want to form and join legal small scale enterprise with my colleagues who works on textile garment sector...' (Interview 01 beneficiary, March 7 2020, Addis Ababa).

The capabilities of the household to participate in different social institutions were also perceived by the majority of HHs in the study area. The results in Table 4.1 show that about, 61.5% of the study HHs participated in different social capital. Social capital is one of the most important factors that influence livelihood activities (Getachew *et al.*, 2000). Though the statistical test shows no significant difference between the two groups, majority of (66.5%) UPSNP participants were participated in different local social networks, whereas only 33.5 of non-participant households participated in social networks.

As indicated in Table 4.2, the mean age of UPSNP participants was 50.25 years, and the non-participants were 41.42 years. In line with this, the mean amount of family size of the participant and non-participant household head is 4.21 and 3.89. There is no mean difference in both age and family size of household of two groups.

On the other hand, the average mean of marital status (Married, Unmarried Divorced, Spared and Widowed) of household participants was 2.40 while the difference for non-participant respondent was 1.54, and there is a significant difference between two groups at ($p < 0.01$) of significance level. Similarly, this study's single female heads could not engage in intense income generating activities which could expose their households have insecure livelihood.

Table 4.2: Demographic and socioeconomic characteristics of study HHHs continuous variables

Name of the variables	Participant (N=214)	Non-participant (N=57)	Total (N= 271)	T-value	P-value
	Mean value	Mean value	Mean		
Age of HHH	50.25 (17.33)	41.42 (18.02)	48.40	-0.4698	0.087
Marital status of HHH	2.04 (1.22)	1.54 (0.88)	1.94	-2.8936	0.003***
Family size of HHH	4.21 (1.79)	3.89 (1.68)	4.14	-1.1917	0.815
Education (grade)	2.75 (1.29)	4.03 (1.70)	3.03	6.1953	0.000***
Dependency ratio	1.99 (1.23)	1.31 (1.18)	1.85	-3.7116	0.001***
Cash UPSNP	628.43 (235.47)	0 0	628.43	-15.2138	0.000***
Total annual income	15877.48 (11207.24)	61957.05 (56834.64)	25569.49	11.1272	0.000***
Expenditure	1271.59 (808.63)	4168.68 (2694.24)	1880.94	13.6455	0.000***
Consumption durable of goods	977.80 (619.98)	7910.53 (8617.93)	2435.98	11.7141	0.000***

Note: ***, **, *, show significance at $p < 0.01$, $p < 0.05$, and $p < 0.1$ respectively

(): means standard deviation

Source: Computed from own survey (2020)

The results further revealed that the year of education of the UPSNP participants was 2.75, while it was 4.09 for the non-participant households. Program participants are less encouraged to the access of education than non-participating household. The mean difference in education status of the participant and non-participant households was found to be statistically significant at 1% significant level. This implies that households with relatively low education

status were targeted in the program. From the results of this study, it can be concluded that as the number of family member are less educated, the tendency of their participation in UPSNP increases. This is due to the fact that low educational level could not allow them to involve in well-paid jobs. Rather, they will be forced to engage in other livelihood activities that only require their labor as it was also explained in Misgana (2018) and Degefa (2008). They explained that urban poor are usually engaged in low income earning activities as a means of livelihood as a result of low education level they have. Therefore, the low income generation could have contributed to the existence of the households below poverty line.

The mean value of the dependency ratio for UPSNP participants and non-participants was found to be 1.99 and 1.31, respectively (Table 4.2). Besides, the difference between the two groups is statistically significant at 1% significant level. This implies that the PSNP participants have high number of family members who does not engaged in different income generating activities. This result asserts that as the number of economically inactive family members increases, the tendency of participation in UPSNP increases.

On the other hand, cash transfer from UPSNP was found have a significant effect on household participation to improve livelihood of beneficiary. The average mean cash transfer from UPSNP for participants was found to be 624.43 respectively. The p-value implies that cash delivered for beneficiaries have effects on poor household livelihood and there is a significant at ($p < 0.01$) significant level. But, the amount of the cash transfer was inadequate as compared to the current standard of living. It had become difficult to expend it for their basic needs (food, cloth, medication). Unless they were engaged in additional livelihood activities, it was impossible to lead their lives with the small cash support from UPSNP. Similarly Misganaw (2018) in his study conducted on PSNP reflected the inadequacy of the cash transfer to meet the basic needs of the beneficiaries. Thus, the amount of the transfer should be adjusted in line with the current urban condition in order to help the beneficiaries to move out of poverty.

On the other hand, the effect of total annual income was found have a significant effect on household UPSNP participation. The average mean income for UPSNP participants and non-participants was found to be 15877.48 and 61957.051, respectively. In addition, the mean difference was found to be statistically significant at 1% significant level, implying that UPSNP participants had less annual income compared to the non-participants.

Regarding to household expenditure, the average annual expenditure for UPSNP participants was 1271.59 while it was 4148.48 for non-participants. The statistical test also shows that there is significant difference between the two groups at 1% significance level. The amount of expenditure is difference in participant and non-participant groups because it depends on monthly cash earned from livelihood activities.

Similarly, the average mean of consumption of durable goods of the program participants was 977.80 while the difference for non-participant respondent was 7910.53, and there is a significant difference between two at ($p < 0.01$) of significance level. The result is in line with the study by Tsegaye (2017). His findings showed that the improving consumption of durable goods, from 2005 to 2016, had increased for both participants and non-participants. More specifically participant's average durable goods consumption was improved from 208.1429 in 2005 to 1101.55 in 2016. On the other hands, for non-participants consumption was increased from 4.96 in 2005 to 312.2 in 2016. It was argued that PSNP has positive impacts on the food and durable goods consumption for treated households during the implementation period when comparing with non-participants (Tsegaye, 2017).

4.2. Food security /insecurity status of households of the study area

4.2.1. Opinions regarding community's causes of food insecurity: Problem tree analysis

This sub-section describes the root causes of household food insecurity in the study area based on the problem tree analysis. According to the problem tree analysis food insecurity is the core problem of this specific study. The immediate causes of the core problem were identified as: food market instability, shortage of cash income, rising price of food and non-food commodity, unemployment, increased cost of production, transportation and other living necessities, persistent chronic poverty, number of family size, and others. The immediate effects of the core problem are increased poverty, increases mortality rate, increased conflicts & displacement, food scarcity at household, decline of life expectancy, losses of asset (See Appendix 1).

According to the findings of this study, the causes of food insecurity are widespread and very much associated with very low incomes and unemployment or irregular employment. The failure of people to gain employment arose from insufficient availability of jobs and demand for their products and services, lack of skills and inability to work due to old age or illness. Large family size put and kept some households in poverty. The most acutely felt cause of

food shortages in many of the households included in the study was the significant rise in the price of food and other commodities in recent years. Figure 4.1 presents the common and major causes of food insecurity in the study area.

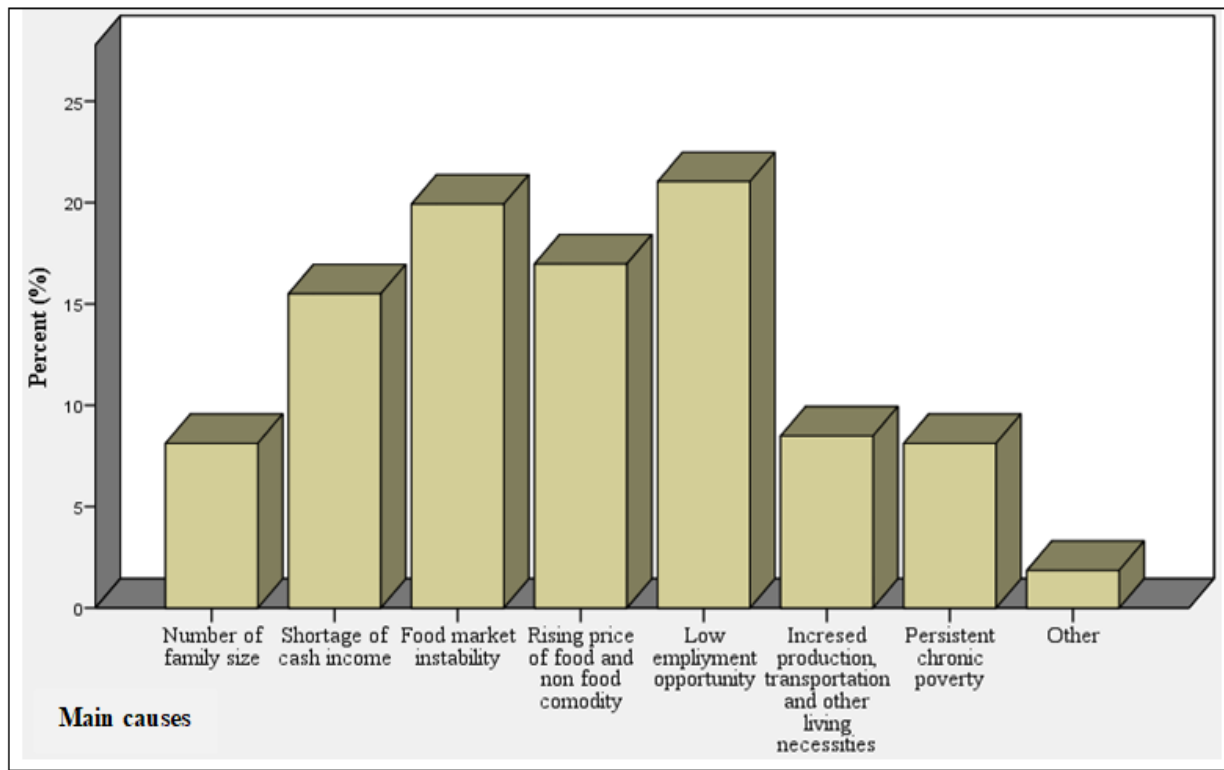


Figure 4.1: Causes of food insecurity in the study area.

Source: Own computation result of SPSS 14, 2020.

The survey result showed that the most common and core root causes of food insecurity in the study area are low employment opportunity, food marker instability, rising price of food and non-food commodity, limited income opportunities, increased cost of production, transportation and other living necessities, price increases for fuel, electricity and high house rental costs, family size and persistent chronic poverty and other uses.

Low employment opportunity: According to the findings of this study, the causes of food insecurity are widespread and very much associated with very low incomes and unemployment or irregular employment. 21% of the study HH perceived that low employment opportunity is one of the core causes of food insecurity in the study area. The failure of people to gain employment arose from insufficient availability of jobs and demand for their products and services, lack of skills and inability to work due to old age or illness (Yared, 2010). The unemployed in urban Ethiopia are relatively high among educated young population status. For example, most young adults who have completed 12 years of schooling but not taken their

studies further are unemployed. To some extent, this situation might reflect the fact that only the relatively well-educated consider themselves unemployed. Underemployment, caused by the increased casualization of labor, is also widespread. For many, unstable casual work paid on a daily basis is all that is available.

Food market instability: Urban marketing system for agriculture products is not well developed to promote the growth of industrialization; boost employment opportunities; and linkage with the rural areas is improving but still at an infant stage due to the slowly expanding infrastructure and services (FAO, 2017). The results of this study show that 20% of respondents perceived that food market instability is the main causes of food insecurity in the study area. This might be due to urban areas are mostly dependent on the food market to purchase their food, lack of monitoring & policy support and inflation. As explained by Farrington (2002), finance is a critical factor that ensures food security in urban areas. Thus, more than production, urban people's income status determines their level of food access.

The study has taken into account the food access and food access stability of households to assess the improvement of households' food security. Recalling the trends of food markets in the Addis Ababa, majority of study HH responded that markets were functioning reasonably well and everything was available until early 2016 in general. However, some households felt that by the end of June 2016, food markets became unstable, due to poor supply of some food commodities into the market. While this was not due to shortage on in-coming cereals from the rural areas, traders and brokers were accustomed to hoarding it in view of getting more profit through artificially created scarcity. Consistently, some of the key informants indicate unusual huge price increases for the scarce food commodities in the Addis Ababa.

Rising price of food and non-food commodity: Large family size put and kept some households in poverty. The most acutely felt cause of food shortages in many of the households included in the study area was the significant rise in the price of food and other commodities in recent years. The unusual food prices have affected the entire household of the city. About 17% of the study households perceived that rising price of food and non-food commodity is the main causes for food insecurity. According to focus group discussions and key informant interviews, the economic shock of increasing food prices is common in recent five year. Most of the respondents started noticing the sudden food price increases from mid-2016; hence they felt that the reference period of January to June 2020 used for this survey would not reflect the cumulative impact of price increases over a four-year period. According to MoFED (2013), the global food price crisis which affected most countries, including

Ethiopia has led to increases in inflation. Energy prices have also experienced significant rises globally. Such global trends are the main drivers of the increase in reported price shocks. In sum, it showed that mean vulnerability to shock is, as expected, very high food insecure households and some interesting policy implications in decentralizing policies to alleviate vulnerability to poverty. The FGDs had shown the rising price of food and non-food commodity as follows:

'...the price of 100 kg teff was as low as 2000 Birr or less before mid-2018 and in mid-2020 it averaged around 4,500 Birr, a two fold increase. Especially, in this year the food prices had increased from time to time. Another non-food commodity also increased two to three folds. The reasons behind rising prices of food and non-food commodity in the city is internal displacement, artificial increase in prices as a result of opportunistic traders and brokers and farmers, increase in prices from the source of commodities, high food demand, increase in fuel prices, and shortage of foreign currencies were the major causes the food price increases...' (FGD 01, May 02, 2020, Addis Ababa).

Shortage of cash income: about 15.5% of respondent articulate shortage of cash income or cash inflations. Food consumption of some households included in the study has been declined due to the fact that they cannot afford to buy the minimum amounts of cereals and other foodstuffs. About 15.5% of them perceived that shortage of cash income was the main reasons for food insecurity in the study area. On average, only 65% of households were able to purchase about 10 to 25 kilograms of *teff* and/or other cereals such as maize per month, the lowest quantities being supplemented by daily purchases of *injera* or bread. Some households were not even be able to assure themselves a meal of *injera* and *shiro*, and had to be satisfied with some *qollo* and coffee or water. Moreover, some of FGD participants also raises about taking *dube* /informal credit/ because of shortages of cash in household member. The reason I raise this question was because the things they sell and the amount of money they received for their daily services were hardly compared to the price of the commodities in the market.

On the other hand, cash transferred from UPSNP was limited and this situation was worsened among the direct support beneficiaries who were receiving 215 ETB per month. They were kept supported by neighbors rather than by the program alone. However, the inadequacy of the cash transfer which was worsened by the existing inflation was responded in the survey. In general, the study households receive 215 ETB (direct support) and 450 ETB (conditional

transfer) per month from UPSNP. More than half of them have been having an estimated monthly income range 1000-2000 ETB from different livelihood activities.

Increased cost of production, transportation and other living necessities: About 8.5.% of the respondents perceived that, the raising price of raw material or production cost and the crude oil prices in international markets continually raised over the last one and half year. Likewise, fuel price increases on a continuous basis was also mentioned by FGD discussants as a major cause for increasing/expensive transport costs that had complicated the food price increases. Since 2016 in Addis Ababa, a liter of Benzine costs Birr 16.6, diesel costs Birr 14.16 per liter and kerosene costs Birr 12.43 now raise to 21.53, 18.75 and 16 Birr with limited availability of fuel and transportation costs. Despite high price, certain goods shortage and the uncertainties caused by recent production and transportation strikers in Addis Ababa. The fuel price adjustments were perceived to be low compared to trends in international markets due to of lack of foreign currency in the country. As indicated above, pre-existing low income levels and unemployment in combination with high food prices were also pointed out as the causes of food shortage by quite a few respondents.

Persistent chronic poverty (8.1%): The total poverty rate changes from time to time in urban Ethiopia in general and in the study area in particular. The poverty gap index is estimated that poverty rates in Addis Ababa were as high as 28.1 percent. This result may be attributed to the fact that the proportion of people living in Addis is much higher. At the same time because of high migration from rural to urban areas. Those households which consist of the elderly, suffer from lack of employment opportunities, have members with HIV/AIDS and include commercial sex workers are more likely to be destitute. Draws attention to the undignified aspects of life in the slums of one of the major cities of Ethiopia - Addis Ababa - where destitute people gather from all over the country. In recent year political instability also causes internally displaced peoples it's crucial in causing most of the instability in urban welfare but is rarely discussed in the context of urban poverty (WHO, 2015).

Number of family size: Range of family size in the study area is 1 to 12 family members in household. About 8.1% of the study households perceived that the number of family size causes food insecurity in the study area. In the study area, there is a tendency to avoid differences in food allocation among family members apart from the special consideration given to children large number of respondents perceived that family members ate the same types and amount of food, often from the same plate. This is especially the case among the

poorest families where the food that could be offered is too small to be divided up among family members. It can also be an important means of reinforcing family According to Urban food Security Strategy (MoUDH, Ref:), some of the root causes of food insecurity in urban areas are: unsystematic rural-urban migration (that is urban rural migration not guided by economic indicators); lack of adequate employment opportunities; lack of integrated SP for disadvantaged groups; underutilized potential of urban agriculture; lack of modern market exchange system; lack of efficient service delivery; lack of conducive working environment; poor solid and liquid waste management; and environmental, natural and man-made hazards. Urban areas are also severely affected by price hikes that arise from production falls due to drought and other natural solidarity in the face of scarcity (Yared, 2010).

Moreover, a poor woman from a female-headed household (37) key informant with number of family size (children) said,

'I have five children and the oldest is 16 years old. My husband died two years ago. Life with children is worse because of none of them understood me. If you were to stay till noon, you would see how the children behave. They say I am not full. Ema, I am still hungry.' I have to sit outside when they eat. They come out and say that they have not had enough. If I had food, I would have given them abundantly. I work as a daily laborer, but the wage is not enough to feed my family. As I have to a lot of children, I can't to feed them. As a result, I depend on support from my relatives. What can I give them if I don't have it? I am very poor... '(Interview 02 beneficiary, March 6, 2020, Addis Ababa).

Other causes: Additionally, about 1.8% of respondents mention other factors that cause food insecurity in the study area. Some of these factors include the current house rent, shock taxation, private school payment and homelessness, epidemic diseases like Corona virus or COVID 19, HIV/AIDS and cholera etc.

4.2.2. Opinions regarding community's needs and proposed developmental solutions

The respondents were also asked to express their opinions regarding the needs of their communities. Not surprisingly, the severe food shortages were mentioned most frequently by survey and both male and female in FGD and KII. In a related comment, expanding the commercial and urban food production and processing and strengthening consumer and cooperatives from the substantial losses that households had experienced during the food

shortage were reported in several households. The need to address the lack of sources of income by expanding employment opportunities was mentioned as well. Additionally, the respondents also articulate the.

According to the problem tree analysis the means of developmental solution to reduce the status of food insecurity of the cities us well as the study area (See Appendix 2).

- Promoting employment
- Strengthening consumer's cooperatives
- Expanding commercial and urban food production and processing
- Improving the grain subsidy programme
- Using family planning
- Adopting an urban PSNP
- Addressing child nutrition

The final outcome of the means of developmental solution are robust development, reduced jobless graduates & man power, food security & sovereignty, efficient use of resources, narrow gap between the poor and the rich, reduced crimes and insecurity (See Appendix 2).

Strengthening consumer's cooperatives: According to result of Figure 4.2 indicate that, 20% represent strengthening financial resources, market networks and linkage direct producer and consumer because there is storage space to provide more affordable and diversified cereals to consumers. They need further support from government through indirect control market to meeting these shortfalls. Urban centers become centers of modern market exchange, technology transfer, and good governance for overall development of the study area.

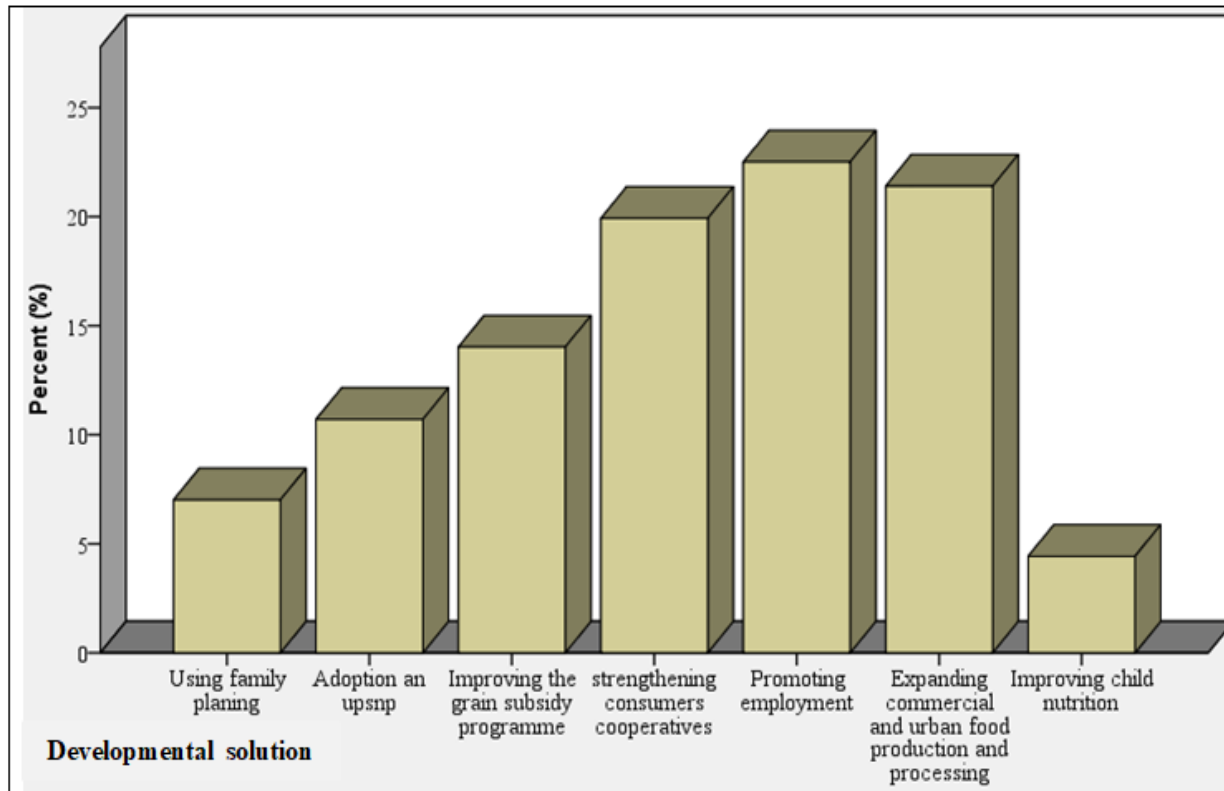


Figure 4.2: Developmental solution for household heads food insecurity

Source: Own computation result of SPSS 14, 2020.

Promoting employment: The results of this study show that 22.5% of respondents perceived promoting self-employment and employment creation for others should be seen as one of the most significant methods of fighting long-term poverty. Urban employment issue is a continuous and integrated multi-sectoral and multidisciplinary process of planning and implementation of measures aimed at preventing or reducing jobless; mitigating the severity or consequences of young unemployment and rapid and effective response to promoting self-employments. Encouraging the private sector to provide better employment for the urban unemployed should not be seen as the only way to increase household incomes but rather as part of the overall scheme of employment creation. Special supporting in terms of income generating opportunities to women headed households and poor families with large number of children will contribute towards reducing the incidence of child labor, displaced people and street children among such families. While addressing the push factors is relevant through appropriate social policies, the pull factors should also be discouraged using instruments such as awareness creation, provision of legal instruments, and sanctioning and discriminating against the production and consumption of products known to be produced by children.

Expanding commercial and urban food production and processing (21.5%): Expanding governmental and non-governmental medium sized and large commercial food processing industry in the city. Promote vertical urban agriculture by supporting production of early maturing crop root crops and small ruminants and by temporarily availing unused open spaces for this purpose. The latter will require a review of the policy, legal and regulatory framework governing the use of land that has not been brought into use either before or after being allocated for investment or residential purposes.

Improving the grain subsidy programme: The results of this study show that 14% of respondents suggested that means of developmental solution is improving grain subsidy program in the study area. The sales of governments subsidized imported wheat, oil, and sugar through ration shops has contributed to the stabilization of cereal prices and enhanced household access to food. Nevertheless, its inability to reduce cereal prices rapidly and to avail subsidized wheat regularly at the local level, its limitation to one type of cereal, the imposition of a minimum quota and the lack of targeting has weakened its impact on poor households. One of the ways of strengthening the programme is to improve the operation of the ration shops by taking steps to ensure the regular availability of subsidized grain and eliminating minimum quotas. The introduction of mechanisms to target poor households for grain sales can be another way of maximizing the benefits to them. According to Yared (2010) urban grain subsidy are important vital role to regulate food price and consumption smoothing. The redirection of the subsidies from imported wheat to domestic cereals can also better meet the preferences of households if ways can be found to prevent this from bringing about further rises in cereal prices. The selection of less preferred cereals such as black *teff* or maize for subsidization can utilize self-targeting to benefit poorer consumers.

Adopting an urban PSNP: About 10.7% of them suggested that the government should adopt UPSNP in 85 *Woredas* in first and second round intervention. However, the study has indicated that the food insecurity level among poor urban households is complex and high vulnerability condition. It is therefore critical to include whole urban *woredas* in subsequent poverty reduction strategies in order to protect the urban pro-poor households. The mainly first round intervention safety net programme should be expanded to cover the vulnerable *woreda* households whose incomes do not allow them to meet their food needs. Such a safety net programme would consist of food or cash transfers who may be targeted on the basis of occupation or income (Misgana, 2018). These transfers can involve public works related to

sanitary activities, improvement of urban infrastructure and landscape, or community service. They would also include direct support to the labor-poor such as the elderly and people living with HIV/AIDS, and food supplements for children, including orphans and vulnerable children. Inadequacy of payments the program has become additional as well as stable income source for the households who are mostly engaged in jobs with low and varying earning. The amount of the transfer should be adjusted in line with the current urban condition in order to help the beneficiaries to move out of poverty.

Using family planning: The results of this study show that 7% of respondents suggested family planning. The rights-based approach is using the strategic scaling up family planning services. Additionally, targeting to reducing national or maternal death rate, avoid unwanted and unplanned pregnancies is vital action. As well as reducing serious pregnancy related to complications and there by affect the disability adjusting life years of women. Community based education about family planning in order to encourage households to plan for smaller family sizes (incompatible with for their income), particularly for female headed households. The private sector can play an important role promoting the family planning services for urban and peri-urban populations in Ethiopia. Improving that extensive health information management system to gather data from the *Kebele* level up to the national level is important. So, it also needs the collaboration of government and stakeholders around a common vision and outlining the activities and timeline to achieving this key milestone.

Addressing child nutrition: The results of this study show that 4.3% of respondents suggested infant nutrition. School feeding was having a strong impact on their family and child nutrition and school attendance and performance. The respondents really appreciate the effort of central government regarding to starting school feeding program. But, the household head have less believing on continuity of school feeding because of political instability.

4.2.3. HFIAS results

The HFIAS module yields information on food insecurity (access) at the household level. The Household Food Insecurity Access Prevalence (HFIAP) Status indicator was used to measure household food insecurity (access) prevalence and make geographic targeting decisions. The change in HFIAP were also be tabulated. For instance, when 60 percent of households are severely food insecure (access) at baseline and only 30 percent are severely food insecure (access) at the end of the program, the prevalence of household food insecurity (access) would have decreased by 30 percentage points (or by 50 percent). Because the average HFIAS score

is a continuous variable, it is more sensitive to capturing smaller increments of changes over time than the HFIAP indicator. Therefore, the HFIAP indicator should be reported in addition to, rather than instead of, the average HFIAS Score for program monitoring and evaluation.

The HFIAP indicator categorizes households into four levels of household food insecurity (access): food secure, mildly food insecure, moderately food insecure and severely food insecure. Households are categorized as increasingly food insecure as they respond affirmatively to more severe conditions and/or experience those conditions more frequently. A food secure household experiences none of the food insecurity (access) conditions, or just experiences worry, but rarely. A mildly food insecure (access) household worries about not having enough food sometimes or often, and/or is unable to eat preferred foods, and/or eats a more monotonous diet than desired and/or some foods considered undesirable, but only rarely. But it does not cut back on quantity nor experience any of three most severe conditions (running out of food, going to bed hungry, or going a whole day and night without eating). A moderately food insecure household sacrifices quality more frequently, by eating a monotonous diet or undesirable foods sometimes or often, and/or has started to cut back on quantity by reducing the size of meals or number of meals, rarely or sometimes. But it does not experience any of the three most severe conditions. A severely food insecure household has graduated to cutting back on meal size or number of meals often, and/or experiences any of the three most severe conditions (running out of food, going to bed hungry, or going a whole day and night without eating), even as infrequently as rarely. In other words, any household that experiences one of these three conditions even once in the last four weeks (30 days) is considered severely food insecure (Coates, Swindale and Bilinsky, 2007). Using HFIAS, respondents were asked whether they had faced the occurrence of conditions in the past one month (four weeks). Based on this assessment of HFIAS model, the food status of household head the study area was described below.

As shown in Table 4.3 the HFIAP indicator categorizes households into four levels of household food insecurity. The results shows only 2.2% of respondent households were food secure, whereas, the majority of study households (49.08) were moderately food insecure. The remaining, 26.2% and 22.5% of respondent households were mildly food insecure and as severely respectively.

Table 4.3: Food security and participation status of household heads

Food security status	Participation status of HHs		Frequency	Percentage %
	Participant (N=214)	Non-participant (N=57)		
Food secure	0	6	6	2.21
Mildly food in secure	42	29	71	26.20
Moderately food in secure	113	20	133	49.08
Severely food in secure	59	2	61	22.51
Totally	214	57	271	100%

Source: Author's regression result using STATA 14.

Regarding the food security status of UPSNP participants, there were no food secure households. Majority of UPSNP participants were moderately and severely food insecure. The results indicate the importance of PSNP on the food security of urban poor households. However, the food security statuses of non-participant households are mild and moderately food insecure. Few of them are food secure and severely food insecure.

4.3.Econometrics model

4.3.1. Model diagnosis test results

This study conducted the entire necessary model diagnosis test include model specification test for the overall model fit (goodness of fit), multi-collinearity problem and link test or test for model specification error test. The explanatory variables were checked for existence of multi-collinearity or association between the dependent variables to identify the determinant factors affecting household participation in UPSNP. In the estimation process data from the two groups, namely, PSNP participant households and non-participant households were pooled and the dependent variable takes value of 1 if the household was a PSNP participant and 0 otherwise. Before running the regression model, the explanatory variables were checked for the existence of multi-collinearity. For Variance Inflation Factor (VIF) as the rule of thumb, (a variable those have 1 VIF not correlated between 1-5 moderately and greater than 5 have high correlated) (Education, 2010) from this respect as the mean of VIF was 2.47 have medium collinearity each variable.

The model showed that there were no serious problems of multi-collinearity observed because of the tolerance among explanatory variable was greater than 20% (Table 4.4). Hence, all

explanatory variables are used for estimating the model. The variables included in the model were hypothesized to influence household head's participation in the program and the outcome variables, household annual income, cash transfer from UPSNP and consumption of durable goods as well. The model goodness of fit test of the logistic regression justify that the model is robust enough to explain the dependent variable. The Pseudo R² statistic of the model is 1 and evidence that the variable is well fit for the model and the independent variable could explain the dependent variable.

Table 4.4: Diagnostic test result for regression models

Tests	Test name	Factors of participation
estat gof	Pearson>chi2	1
Link test	hat	0.00
	Hatsq	0.42
VIF	Multi-collinearity	2.40

Source: Own competition result using STATA 14.

According to Gujarati (2004), model test carried out before running the logistic regression while model specification error test (link-test) was carried out after running the regression. If the p-value of hatsq is not significant then we reject the null hypothesis and confirm that our model is correctly specified. For factors affecting food household participation the p-value is 0.41 this indicates that the value is not significant and we fail to reject the null hypothesis and accept that there is no model specification error.

4.3.2. Regression analysis and interpretations for participation

The dependent variable, household participation on UPSNP, had dichotomous values taking a value of 1 if the households were UPSNP participant and 0 for non-participants. The binary regression is used in order to measure the association between probabilities of household participation on PSNP and the explanatory variables which were listed in Table 3.3. The relationship between the variables was tested under the following two hypotheses:

H₀: There is no significant relationship between UPSNP and independent variable

H₁: There is significant relationship between UPSNP and independent variable

The null hypothesis is rejected when the p-value is less than the level of significance (α), so that the alternative hypothesis will be accepted. There are two pointers to demonstrate the significant relationship between dependent and independent variables which are the pseudo R-

squared and X^2 -statistics. As depicted in Appendix 1, pseudo R-squared accounted 1; which means being poor is explained by the variations of the independent variables in the model. Besides, the X^2 value is not large showing that the model is good to explain the relationship between the variables. In general, the model fits the data. Binary logit result for determinants of household's participation in UPSNP is shown in Table 4.5. Data are output of the model. For these data, pseudo $R^2 = 0.8234$ and count $R^2 = 95.21$ what implies prediction success. Number of observations is 271, log pseudo likelihood $-24,61236$, Wald LR $\chi^2(15) = 229.58$ and $\text{Prob} > \chi^2 = 0,0000$ shows that models fit the data well as compare to the null.

Table 4.5: Binary logit result for household participation on PSNP

Variables	Coef.	Std. Err.	Z	P>z	[95% Conf.	Marginal effect dy/dx
Sex of HHH	-0.905	0.921	-0.98	0.326	-2.709	-0.209
Age of HHH	-0.088	0.039	-2.25	0.025**	-0.165	-0.021
Marital status of HHH	0.668	0.405	1.65	0.099	-0.125	0.159
Family size	0.375	0.370	1.01	0.312	-0.351	0.089
Heath status	0.898	1.124	0.80	0.424	-1.305	0.213
Educational level of HHH	-0.049	0.447	-0.11	0.913	-0.924	-0.012
Dependency ratio	-0.522	0.459	-0.11	0.909	-0.952	-0.012
Credit	-0.034	1.201	-0.03	0.978	-2.388	-0.008
Saving	-0.429	1.171	-0.37	0.714	-2.724	-0.103
Monthly cash transfer from UPSNP	0.005	0.001	2.96	0.003***	0.001	0.001
Total annual income	0.000	0.000	2.33	0.020**	0.000	0.000
Expenditure	-0.001	0.001	-2.24	0.025**	-0.003	-0.000
Consumption of durable goods	-0.004	0.001	-4.12	0.000***	-0.006	-0.001
Training	0.340	1.308	0.26	0.795	-2.223	0.080
Participation on SNW	0.300	0.975	0.31	0.758	-1.610	0.071

Source: Author's regression result using STATA 14

Note: the sign ***, ** and* denote the coefficients are statistically significant at 1 %, 5% and 10% respectively.

The estimated binary regression model indicated that program participation was significantly influenced by explanatory variables used in the logit estimation model. Out of the fifteen

explanatory variables, only five variable namely: age of HH, monthly cash transfer from UPSNP, total annual income, expenditure, consumption durable goods, had affected household participation in UPSNP significantly at 5%, 5%, 5%, 1% and 1% level of significance respectively. Age of HH, expenditure and consumption of durable goods had affected income negatively; while income earnings from UPSNP and total annual income positively affect participation.

As it was hypothesized, ages of household head were statistically significant effect on household's program participation, and were significant at 5% probability level. But the coefficient variation indicate is negative. This is because of age household increases the probability to engaged on public work activity is decreases.

On the other hand, cash transfer from UPSNP had positive effects on household's participation in PSNP. This means, it had led the households to become less poor. The cash transfer has a coefficient of 0.0046. Thus, as the cash transfer increases by one Ethiopian birr (ETB, the probability of being non-poor will increase by a factor of 0.46%. Therefore, the cash transfer from the UPSNP has contribution in improving the income status of the beneficiary households.

Total annual income of household head significantly and positively influences the probability of household's participation in the program at 5% significant level. This is because of household head with high amounts of annual income earned will have strong livelihood which can make other money and seek new technologies to improve his/her livelihood. This is because of household head with high amounts of annual income earned will have strong livelihood which can make other money and seek new technologies to improve his/her livelihood.

Similarly, consumption expenditure of household head was statistically significantly and negatively influencing the probability of household's participation in the program with p-value of (0.025). This indicates that the amount of expenditure difference in participant and non-participant is significantly affects the participation on PSNP between the households heads.

Moreover, consumption of durable goods of household had negative and significant relationship between program participation at 1% significant level ($p < 0.01$). Accordingly, as the consumption of durable goods of household increases by one, then the probability to participate in UPSNP decreases by 99.5 %. This indicates that an increase in consumption of

durable goods reduce food security. The low wage earnings coupled with increasing consumption of durable goods is worsen the food insecurity status of the beneficiary households.

From the above discussions, it can be concluded that the probability of household's participation in UPSNP can be explained by explanatory variables. The analysis of this study rejected the null hypothesis; there is significant relationship between explanatory variables and participation of the beneficiary households in UPSNP.

4.3.3. Ordered logit result

Ordered logistic regression was a type of logistic regression analysis that when the response variable is categorized more than two with having natural order or rank. When a dependent variable has more than two categories and the values of each category have a meaningful sequential order where a value is indeed 'higher' than the previous one, then we use ordinal logit. In this study, the researcher employed an ordered logit regression model to predict the effects of urban productive safety net program on of food security status of sample urban households. An ordered logit model of estimation used to analyze the effects of a certain category of relationship to food insecurity status of study households. As indicated in Table 4.6, the number of observations is 271. The LR Chi-squared test with a value of 183.14 (P-value =0.0000) shows that models fit the data well as compare to the null. The Pseudo $R^2 = 0.3016$.

The result of STATA indicates that, age of household head, family size, saving access and Consumption durable goods of household head are statically significant. The rest of the variables are not significant. Although, it indicates the p-value of four variables significantly influenced and determined the probability of becoming the food insecurity status of the urban household in the study area. As it indicates, the p-value of these four variables is below 0.05 or above the Z score of 1.96. The rest of the variables were not significant (See Table 4.6 and 4.7).

Table 4.6: Ordinary logit result for effects of PSNP on food security

Variables	Coef.	Std. Err.	Z	P>z	95% Conf.	Interval
Sex of HHH	-0.025	0.273	-0.09	0.926	-0.561	0.511
Age of HHH	0.031	0.010	3.10	0.002***	0.011	0.051
Marital status of HHH	0.634	0.119	0.36	0.717	-0.189	0.275
Family size	-0.634	0.119	-5.34	0.000***	-0.867	-0.401
Heath status	0.484	0.296	1.64	0.101	-0.095	1.065
Educational level of HHH	-0.044	0.121	-0.37	0.712	-0.281	0.192
Dependency ratio	0.272	0.159	1.71	0.087	-0.0392	0.584
Credit	0.393	0.373	1.05	0.292	-0.338	1.123
Saving	-0.933	0.377	-2.47	0.013**	-1.671	-0.194
Monthly cash transfer from UPSNP	-0.000	0.000	-9.72	0.470	-0.001	0.001
Consumption of durable goods	-0.000	0.000	-5.17	0.000***	-0.001	-0.000
Training	0.426	0.393	1.08	0.279	-0.345	1.197
Participation on social net-work	0.418	0.279	1.50	0.134	-0.129	0.964
/cut1	-8.836	1.583			-11.939	-5.735
/cut2	-2.729	0.902			-4.497	-.961
/cut3	0.537	0.894			-1.215	2.288

Source: Author's regression result using STATA 14, 2020

Note: the sign ***, ** and* denote the coefficients are statistically significant at 1 %, 5% and 10% respectively.

Age of HHH: The result of ordered logit regression model in Table 4.7 below shows that, age of HHH has a statistically significant positive relationship with household food security at $P < 0.01$ or 1% ($P = 0.003$). It indicates that if age of sampled household more there is the more likely to be in the food secured category and less likely in the food insecure category. The marginal effect in Table 4.7 shows that as age of household increase by one year keeping other variables constant, the probability to be in the food secure and mildly food insecure HHH in level decreases (less likely in two categories) by 0.00% and 0.55%, the probability in moderate and severely food insecure category increase (more likely in also two categories) by

0.24% and 0.31%. This is due to relatively that, if the age of moderate and severely food insecure category households increases the ability to participate in different jobs increases. The coefficient variation also indicate that probability food secure is 31%. Because, of gradually well experienced in their job efficient and effectiveness well developed.

Table 4.7: Marginal effects after ordered logit model

Variables	Marginal effect dy/dx for food secure	Marginal effect dy/dx for mildly food insecure	Marginal effect dy/dx for moderate food insecure	Marginal effect dy/dx for severely food insecure
Sex of HHH	0.000	0.004	-0.00	-0.002
Age of HHH	-0.000	-0.005	0.002	0.003
Marital status of HHH	-0.000	0.007	0.003	0.004
Family size	0.000	0.112	-0.049	-0.063
Heath status	-0.00	-0.085	0.035	0.049
Educational level of HHH	0.000	0.008	-0.003	-0.004
Dependency ratio	-0.000	-0.048	0.021	0.027
Credit	-0.000	-0.064	0.021	0.044
Saving	0.001	0.155	-0.052	-0.103
Monthly cash transfer from UPSNP	0.000	0.000	-0.000	-0.000
Consumption of durable goods	0.000	0.000	-0.000	-0.000
Training	-0.000	-0.078	0.038	0.040
Participation on social net-work	-0.000	-0.076	0.037	0.039

Source: Author's regression result using STATA 14, 2020

Family size: This variable has a statistically significant and negative effect with household food security at 1% (P=0.000) as indicated in Table 4.7 above. The result indicate that household head who have large family size are more likely to be in the food secure and mildly food insecure category and less likely in the moderate and severely food insecure HHH in the study area. Furthermore the marginal effect in Table 4.7 indicates that, if food secure and mildly food insecure HHH family size by one person increase the probability to food secured increase by 0.06% and 15.49%, the probability to be in the moderate and severely food insecure category decreases by 4.9% and 6.35. This means that urban moderate and severely

food insecure households who have large family size are food insecure than food secure and mildly food insecure HHH. Similarly, Mekuanit (2014) indicated most of the family member who were found in the inactive age group and that has no contribution to income-generating rather than consumption negatively related to household food security. This might be due to the fact that large household size creates more pressure on household food security status and more expenditures spent non-food items increase. On the other hand, the study by Muluken (2019) indicates that household family size has a positive relationship to household food insecurity status at 5% significant level. It shows that the urban households who have large family size are food insecure than those who have a small family size.

Saving access: This variable has a statistically significant and negative influence on the level of food security of HHH at 5% ($P=0.013$) as indicated in Table 4.7 above. The result indicate that household head who have saving access are more likely to be in the food secure and mildly food insecure HHH category and less likely in the moderate and severely food insecure HHH in the study area. Furthermore the marginal effect in Table 4.7 indicates that, if food secure and mildly food insecure HHH saving their money by one Birr increase the probability to food secured increase by 0.06% and 15.49%, the probability to be in the moderate and severely food insecure category decreases by 5.25% and 10.29. Because, more saving access in moderate and severely food insecure HHH increases the probability to be food insecurity and the results depend on total cash income per month.

Consumption of durable goods: similarly to saving access this variable has a statistically significant and negative influence on the level food secure at 5% ($P=0.013$) as indicated in Table 4.7 above. The result indicate that household head who have strong consumption of durable goods are more likely to be in the food secure and mildly food insecure HHH category and less likely in the moderate and severely food insecure HHH in the study area. Additionally, the marginal effect in Table 4.7 indicates that, if food secure and mildly food insecure HHH family size by one person increase the probability to food secured increase by 0.00% and 0.00%, the probability to be in the moderate and severely food insecure category decreases by 0.00% and 0.00%. This means that urban moderate and severely food insecure households who have large family size are food insecure than food secure and mildly food insecure HHH.

4.4. Focus Group Discussion (FGD) and Key Informant Interview (KII)

4.4.1. Targeting

Program beneficiaries are identified through a combination of community-based targeting, proxy means tests and self-selection. PSNP targeting is done with several challenges and high involvement on the part of the local community along with the *Ketena* committees and *Woreda* administrator. Besides, it is required that the following defined criteria are fulfilled for recruiting households by the targeting committee.

- ✓ The household is poor and vulnerable and not able to meet its food needs
- ✓ Residing in the program area (city/sub-city/*Woreda/Kebele*) for at least six months
- ✓ Up to four members of each eligible urban household
- ✓ For unconditional transfer- Does not have able bodied persons (healthy and of working age as per the national definition)
- ✓ For the conditional transfer- Have able bodied persons (healthy and of working age as per the national definition)
- ✓ For temporary unconditional transfer- Has evidence of the reasons for exemption from public works (MoUDH, 2016)

There are list of criteria's to recommend households be included as beneficiaries and whether those households should contribute their labor through public works and direct support. The process of targeting is also implemented through bottom up targeting system.

The recruitment process was explained by the FGDs as:

'...the targeting system starts from Ketena targeting committee. These Ketena targeting committees rank and select beneficiaries. Initially, the poorer household head are selected through recording their livelihoods including family size, age groups, employment status, income health status and etc. The list is made public and the documentation or list of targeting households then transferred to Woreda food security and productive safety net program office experts. ...woreda and sub-city personnel and social workers oversee the community targeting process in the Ketena. This involves (i) assigning the indicative number of beneficiaries across the Ketenas in the respective Woreda; (ii) sensitizing and awareness campaigns about the program in general and eligibility/targeting criteria in particular; and (iii) updating list of registered households and members are updated to take into account any recent changes. Therefore, the program uses a combination of sub-city and Woredas food security and productive

safety net program office experts and community targeting approaches ...'(FGD 02, March 14, 2020, Addis Ababa).

4.4.2. Trainings provided by UPSNP

The role of PSNP is also providing trainings to PSNP beneficiaries. Development agents like Technical and Vocational Education and Training (TVET) have the responsibility to transfer knowledge on appropriate life skill, and promoting entrepreneurship training. Besides, the life skill, technical and entrepreneurship trainings that are providing to the clients will improve their employability and financial assets which will enhance their food security status in the future (MoUDH PIM, 2016). During field observations, the researcher observed the training given at Entoto Poly Technic College, the previous name of Teferi Mekonin School /TMS/. Most often, the training delivered has 70% practical and 30 % theoretical section. This is important for beneficiary because after graduation they will be self-employed as enterprises. One KII confirmed that the training is important and interesting as it includes project based training, though the period of training is short. The training provided to productive safety net program beneficiaries of public workers and it was based on the interest of beneficiaries. The garment department basic apparel production skill training in Entoto Poly Technic College provided the training. Moreover, the beneficiaries under public work received training on entrepreneurship and business development to develop an accepted business plan for the livelihood grant. The trainings were facilitated by the Gulele sub-city of Food Security and Productive Safety Net Program Office.

4.4.3. Ongoing graduation

Ethiopia has considerable experience in promoting the idea of graduation thanks to the PSNP but actual number of graduates have not been as desired. Graduation from social safety nets encourages the target groups not to develop dependency on transfers. This shifts the focus of the program on those who really need it or could not do with it. The social protection strategy was carrying forward this principle in a more systematic/innovative way than hitherto attempted. Strong connections was also promote graduation between different types of social protection programme (e.g. from social safety nets to livelihoods support) and eventually onto fully market based provision including appropriate insurance schemes. Under these conditions, graduated households are less likely to backsliding into poverty and vulnerability. In UPSNP graduation is a process of moving vulnerable households from receiving transfers to employment and self-employment (or a combination) step-by-step. In order to accelerate the graduation process, linkages was developed at multiple levels. At Federal and Regional

Levels, a new programme was designed and existing programmes were also modified to maximize synergies. UPSNP design each beneficiary will have to stay in the program for at least 3 years anyway. It is the basic principle of the program that beneficiaries should not develop dependency on transfers. One way to operationalize this principle is to encourage and facilitate the process of graduation. Graduation involve a re-targeting exercise using the community based target mechanism and means testing as a verification that households have sufficient assets to exit from the program (MoUDH PIM, 2016).

Experience from the rural PSNP suggests that graduation is a very complex that needs careful handling. A graduation guidance note was developed based a detailed assessment. Similarly the Government will prepare a separate UPSNP graduation guideline based on an assessment of the program over the coming year. As a design each beneficiary will have to stay in the program for at least 3 years anyway. In this phase of the program, the graduation process and thinking is guided by following principles.

1. **Evidence Based:** The identification of a household for graduation must be based on that household meeting the criteria for graduation (rather than based on targets).
2. **Transparency:** the system must be transparent to external actors (federal/regional government and donors) and to UPSNP clients.
3. **Accountable:** the system must be accountable to UPSNP clients.
4. **Simple, responsive and relevant:** the criteria used to identify clients for graduation should be easy to use, livelihood specific and revised periodically to remain relevant.
5. **Flexible:** the system should be implemented in a flexible manner (similar to targeting).
6. **Balance incentives:** the system needs to be responsive to both positive and negative incentives.
7. **Community awareness and involvement:** communities are best placed for operation.

Process of graduation

The necessary support needed for program exit or graduation.

Self-Graduation: Occurs when a beneficiary voluntarily withdraws from the program. This may occur if beneficiary determine that their time and labor are better used engaging in non-program income generation activities than in public works activities. However, self-graduation must occur on a completely voluntary basis and not due to urging on any level from program officials.

Predicting the Likely Graduation Rate: Graduation prediction system is designed to support the assessment of likely graduation rates, to predict the likely graduation rate. Encouraging savings will be designed to facilitate the graduation mechanism to self-employment in the livelihood activities. The program provides more intensive income support to beneficiaries by providing access to more days of public works during the first year and then gradually letting them have more time for livelihood support. Analysis suggests that, on average, 2,000 Birr from the first year's transfers can be saved after all consumption needs have been met, if the full entitlement of days is worked within a family. Therefore, the beneficiaries expected to graduate from the program within three years. In order to graduate from the public work the beneficiaries are expected to take all skill development trainings that will enable them to gain different skills and submission of feasible business plan in climbing the graduation ladder to more regular employment and sustained livelihoods. Moreover, clients should save not less than 20% of their earnings.

I asked a key informant from Gulele sub-city Food Security and Productive Safety Net Head (45) for his views:

'...UPSNP graduation considers only those households taking part in public work but not include direct support beneficiaries. Graduation is when a household can be deemed food sufficient in the absence of receiving emergency transfers; it can meet his/her food needs for three year and is able to withstand modest shocks during this specified period. There are two graduation ways in urban safety net: the first one is self-graduation or exit, which means when beneficiaries are voluntarily report the exit letter for woreda or sub-city to exit from the program. This means that their livelihood is improved and strengthened; as the majority of graduate people are getting the chance to improve their livelihood. The second one is after three years, targeted beneficiary reached the final graduation. We provide more intensive income support to beneficiaries by providing access to more days of public works during the first year and then gradually letting them have more time for livelihood support...' (Interview 03, March 12, 2020, Addis Ababa).

4.4.4. Public work activities

The UPSNP public work activity has involved in five major activities. It includes environmental cleaning, urban greenery development, watershed management, development of social infrastructures, and urban agriculture activities. The program's involvement in the environment aspect has importance in bringing a healthy environment for dwellers by

reducing pollution, minimizing runoff, mitigating heating, improving land productivity, enhancing soil fertility restoration and contributing for the health of communities. The UPSNP's role on the environment was much appreciated one.

Regarding this, a 42-year-old interview from *Woreda 1*, Food Security and Productive Safety Net Head said:

'...according to our woreda, the program works a lot of activities on the environmental image. The public work greenery and environmental cleaning task undertaken by UPSNP has significant contribution in creating green environment. Local communities were trained and developed to separate spoiled and non-spoiled wastes, reduce flooding by constructing drainages, and this changing consequently contributes for health of communities. The woreda is under preparation to begin its watershed activities along the River. Stones are brought for making bunds within the coming period...'(Interview 04, March 12, 2020, Addis Ababa).

Environmental Cleaning: Urban solid waste management and environmental cleaning have list of activities such as street sweeping, door-to-door waste collection, waste segregation, cleaning illegal dumping and water bodies, management of market and public spaces waste, waste segregation and waste recycling activities. The UPSNP is involved in solid waste management such as sweeping and collecting solid wastes. Besides, there was cleaning up drainages and water bodies/ river periodically. The public workers involved in sweeping roads, inside the living community. Solid wastes found inside green area were also cleaned. The solid wastes collected from the streets were segregated based on their types by some public workers. The degradable, plastics and infectious wastes were packed separately. Those degradable types of household wastes such as peels of potatoes, onions and vegetables were taken to be used as fertilizers for plants. On the contrary, most of the public workers simply pack the wastes together to be deposited into the collecting containers. Drainage within the *woreda* was slightly cleaned. Overfilled and malfunctioning drainages were cleaned up and opened by taking out the wastes filling them in order to allow the passage of waste water. This also had relieved the environment from having bad odor. Slightly cleaning was also undertaken along water body sites such as rivers in the *woreda*.

The Solid Waste Disposal Municipality has been working in integration with the programs public workers. The wastes collected by the public workers of the UPSNP are transported to

disposal sites by the socially organized cleaning bodies. Besides, trainings are given by experts on solid waste management to enhance the knowledge and skill of the public workers of the program. During the programs initial phase, working tools such as brooms, gloves, mouth masks and carrying carts were offered by the *woredas* cleaning authority/agency.

Urban Greenery: UPSNP's public work is also engaged in creating green spaces in the city starting from the residence areas. The activities focus on urban landscaping and basic green infrastructure development activities including planting and management of trees, shrubs, flowers and grasses along streets, in and around public parks. In the site observation, almost all of the households mentioned the presence of developed green areas and described the significant roles of UPSNP in the development of urban greenery by planting grasses, flowers and trees, conserving already existing vegetation, constructing protective fences and beautification of streets.

Development of social infrastructures: UPSNP has intention of engaging in development of social infrastructures. The program supports projects that include construction and/or rehabilitation of social infrastructure such as class rooms, child care centers, health posts, public latrines, construction of cobblestone roads, building drainages and community infrastructure, and development of shelters and workshops for income generation (Small and Micro Enterprises activities) and others (MoUDH-PIM, 2016). This activity not started in all *woredas* because it needs big finance and skilled manpower. But the activity of site selection, design, and cost analysis was well organized.

Watershed Management: According to the manual (MoUDH, 2016), urban integrated watershed development activities focus on biological and physical soil and water conservation activities as well as cleaning of waterways. The direct observation showed that, UPSNP had played role by carrying out watershed related activities in their *woreda*. Assembled water is deflected by making waterways/ channels towards drainages to allow its flow into drainages. In this *woreda* they had not yet started activities related to watershed management. But they have started cleaning up around River. These activities (watershed management) have environmental functions such as improving land productivity, soil fertility restoration, access to drinking and irrigation water and minimization of runoff. Therefore, this component of the public work is crucial in sloppy areas found near water bodies in order to direct runoffs towards the river, control erosion and restore soil fertility of the area).

Urban Agriculture: The UPSNP has started its urban agriculture activity by planting vegetables which are used for consumption purpose by the beneficiaries. During site observation had planted vegetables and was preparing more planting sites. The vegetables were consumed by the public workers turn-by-turn. A number of plots also covered by vegetables and more plots were being prepared to increase the urban agriculture sites. It was stated that the Trade and Industry Bureau and the Agriculture Bureau had been providing support to the program by giving trainings, technical supports and vegetable seedlings to improve the urban agriculture activity in the *woreda*. Urban agriculture is an important contributor to sustainable urban growth and development, as well as to people's livelihoods by providing alternative food source for the producing urban poor and may supply to the town markets to some extent. Thus, the agriculture activity has benefited the public workers by providing know-hows and skills on doing agriculture. In the future, it has potential of being a source of food to supplement beneficiary's food consumptions and dietary diversity.

CHAPTER FIVE: CONCLUSIONS AND RECOMMENDATIONS

5.1. Conclusions

Urban food insecurity is chronic and complex. Understanding this complexity and level of urban food security would help policy makers to design and implement more effective policies and programs for the poor and thereby helps to pave way to improve food security. The purpose of this study was to investigate the causes of urban food insecurity, and the contribution of household participation on UPSNP to improve the household food security in Gulele sub-city of Ethiopia. This study used both descriptive statics and econometric methods used to analyze the empirical data that were collected from the study areas. Results of descriptive analysis generally showed that UPSNP participants differ from non-participants counterparts in various demographic, socio-economic and institutional related perspectives between the two participants.

A problem tree analysis was also showed that food insecurity is the core problem of this specific study and the causes of this core problem was identified as: food market instability, shortage of cash income, rising price of food and non-food commodity, unemployment, increased cost of production, transportation and other living necessities, persistent chronic poverty, high dependence ratio and others causes. The effects of the core problem are increased poverty, increases mortality rate, increased conflicts & displacement, food scarcity at household, decline of life expectancy and losses of asset in the study area. What needs to be done in order to reduce causes of urban household food insecurity promoting self-employment opportunity, expanding commercial and urban food production and processing, strengthening consumer's cooperatives the grain subsidy programme, using family planning, adopting an urban PSNP and improving child nutrition important developmental solution.

The result of the binary regression model indicated that age of household head, cash transfer from UPSNP, total annual income, expenditure and consumption of durable goods are statistically significant and determinants of households participation in PSNP in the study area. Ages of household head have negatively and significantly affected the participation on the program. Similar to that, dependence ratio of participants is statically not significant but, the mean ratio of economic inactive member of participant is higher than the non-participant households. Additionally, within inadequacy UPSNP's cash transfer has positive and statistically significant relationship with participant food security. The cash allows the beneficiaries to purchase food which has improved the food access status. Additionally, the

total annual income, expenditure and annual consumption durable goods are also determining household participation. The HFIAS score was conducted to establish the level of food insecurity in the households. The result shows that, about 133(49.1%) were moderately food insecure, 71 (26.2%) were mildly food insecure 61 (22.5%) severely food insecure, and only 6 (2.2%) were food secure. The study confirmed that food security status of sample household is determined by participation on UPSNP and there is statistical difference between participation on UPSNP and food security status of sample households. Additionally the effect of PSNP on food security is analyzed by ordered logit model. The outcome of the study reveals that four variables out of thirty become significant. Those factors are age of HH, family size, saving access and annual consumption durable goods determinants the effect PSNP on food insecurity of urban poor household of study area. This difference would suggest that the program is effective at increasing key welfare outcome of participant households than non-participants groups.

In general, this research concludes that UPSNP has a positive contribution to household food security status, from pro-poor households who participated in UPSNP has moderately and mildly food insecure than non-participated ones.

5.2.Recommendations

In view of the fact that demographic, socio-economic and institutional related factors such as, access to training, marital status of HHH, dependency ratio, educational status, cash transfer UPSNP, total annual income, expenditure, family size consumption, durable of goods are seemingly associated with stated participation the following recommendation was made.

- This study recommends that programs should be designed to improve these socioeconomic characteristics of household food security status of urban poor in the *woreda* level. This will go a long way as to improved food security status of urban in the area. Participants should receive more training and knowledge about how to improve livelihood through steady flow of information by development agents like Addis Ababa City Administration Technical and Vocational Education and Training Agency (AATVETA) have the responsibility to transfer knowledge on appropriate life skill, and promoting entrepreneurship training. Providing technical training to clients in the self and job employment pathways and entrepreneurship training to clients in the self-employment pathway.
- To enhance food security the received cash from the program have to improve because the received cash was very low to cover monthly expenditures due to the expensiveness of food products. The unusual food prices have affected the entire household of the city. About 17% of the study households perceived that rising price of food and non-food commodity is the main causes for food insecurity. To cover this besides to increase the cash based on living wages the project could incorporate food supply in the UPSNPs. The federal government should also make adjustment on cash payment based on the current living condition and wage rate of the city.
- Other big issues raised in this research are the causes of food insecurity are widespread and very much associated with shortage of incomes and unemployment. Due to this the total annual income of the household and expenditure not balanced. So, the federal, city, sub-city, and *Woredas* Urban Job Creation and Food Security Program should enhance job creation opportunities and revised living standard wages.
- The other points that have to be considered are the program participant households have high dependency ratio than non-participant. This dependency ratio is affected by family size and age structure. And also this shows the presence of high fertility rate within the participants. So, in order to overcome this issue *Woreda* and Sub-City of Health Office

should revise the family planning program implementation in the sub-city to integrate it with the PSNP programs.

- Finally, additional research should be carried out at different locations to acquire more empirical findings on the cause of urban food insecurity and contributions of the interventions to the food security situation in Addis Ababa as well as to other UPSNP beneficiary cities in Ethiopia and in the same case policies and other regulations at all levels must gear towards transparent planning, implementation and reporting processes to improve the problems in this aspect at all levels.

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Appendixes

Appendix 1: The causes and effects of urban food insecurity of Gulele sub-city Addis Ababa, Ethiopi

Effects

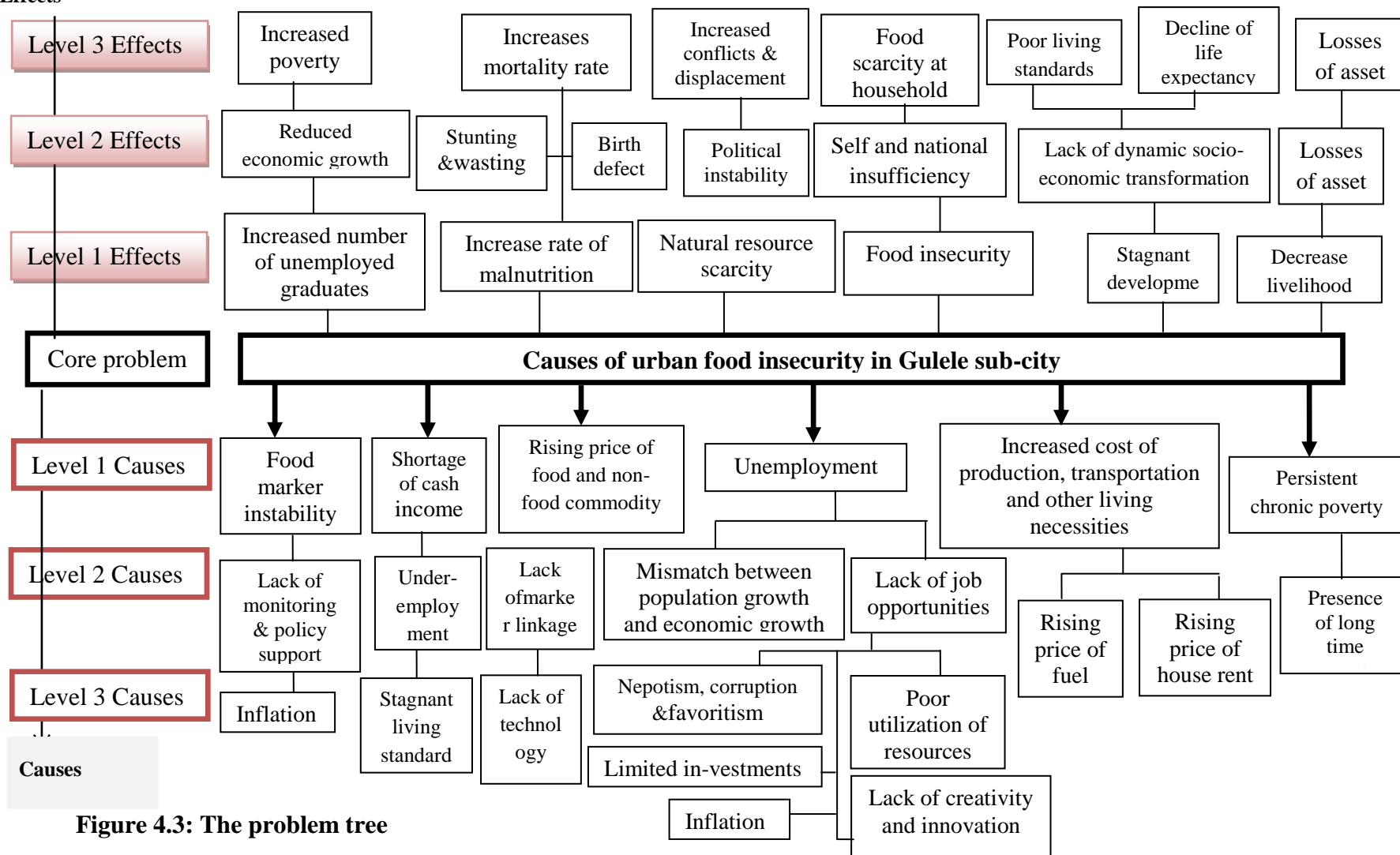


Figure 4.3: The problem tree

Appendix 2: The means to curb down of urban food insecurity of Gulele sub-city Addis Ababa, Ethiopia

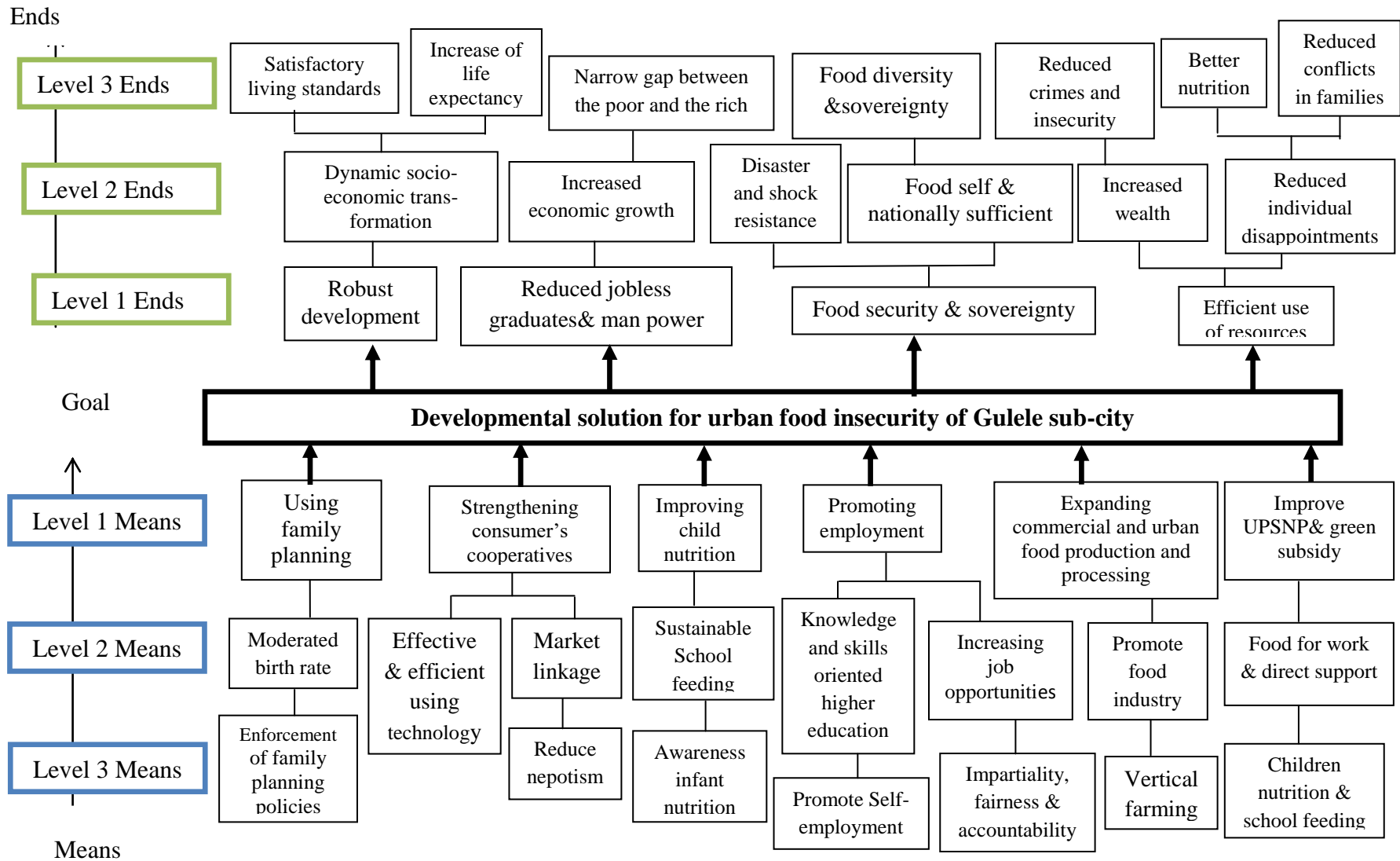


Figure 4.4: The problem tree

Appendix 3: Logistic model test (goodness of fit and link test) for PUPSNP

. lfit

Logistic model for pppsnp, goodness-of-fit test

```

number of observations =      271
number of covariate patterns = 271
Pearson chi2(255) =      95.04
Prob > chi2 =      1.0000

```

. linktest

Source	SS	df	MS	Number of obs =	271
Model	28.2689408	2	14.1344704	F(2, 268) =	226.26
Residual	16.7421293	268	.062470632	Prob > F =	0.0000
Total	45.0110701	270	.166707667	R-squared =	0.6280
				Adj R-squared =	0.6253
				Root MSE =	.24994

pppsnp	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
_hat	1.107532	.1398304	7.92	0.000	.8322257	1.382837
_hatsq	-.0975431	.1194478	-0.82	0.415	-.3327186	.1376323
_cons	-.0139286	.0436061	-0.32	0.750	-.0997828	.0719256

Appendix 4: Multi collinearity test (VIF) for logit

. estat vif

Variable	VIF	1/VIF
totannualinc	7.04	0.142033
expenditure	5.35	0.187019
conpduratn	4.16	0.240265
dependency	2.25	0.445059
famsizehhh	2.20	0.455346
education	1.96	0.511444
training	1.91	0.524331
saving	1.83	0.545557
agehhh	1.81	0.553300
cashtransfer	1.56	0.642483
healthstatus	1.37	0.732321
marstatushhh	1.23	0.815696
credit	1.17	0.858245
sexhhh	1.09	0.915069
psnw	1.07	0.938515
Mean VIF	2.40	

Appendix5: Logistic model for participation on logit for PUPSNP

```
. logit ppsnp sexhhh agehhh marstatushhh famsizehhh healthstatus education dependency credit savin
> g cashtransfer totannualinc expenditure conpduratn training psnw
```

```
Iteration 0: log likelihood = -139.40141
Iteration 1: log likelihood = -57.289262
Iteration 2: log likelihood = -40.54918
Iteration 3: log likelihood = -26.62763
Iteration 4: log likelihood = -24.801767
Iteration 5: log likelihood = -24.612705
Iteration 6: log likelihood = -24.61236
Iteration 7: log likelihood = -24.61236
```

```
Logistic regression                               Number of obs   =       271
                                                    LR chi2(15)    =       229.58
                                                    Prob > chi2    =       0.0000
Log likelihood = -24.61236                       Pseudo R2      =       0.8234
```

pppsnp	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
sexhhh	-.9050372	.9207529	-0.98	0.326	-2.70968	.8996053
agehhh	-.0879817	.0391654	-2.25	0.025	-.1647445	-.0112189
marstatushhh	.6681827	.4048271	1.65	0.099	-.1252637	1.461629
famsizehhh	.3747929	.3703764	1.01	0.312	-.3511315	1.100717
healthstatus	.8980505	1.124383	0.80	0.424	-1.305699	3.1018
education	-.0487584	.4466456	-0.11	0.913	-.9241677	.8266508
dependency	-.0522027	.4591934	-0.11	0.909	-.9522052	.8477998
credit	-.0336661	1.201217	-0.03	0.978	-2.388008	2.320676
saving	-.4297437	1.170725	-0.37	0.714	-2.724323	1.864835
cashtransfer	.0046099	.0015596	2.96	0.003	.0015531	.0076666
totannualinc	.0001212	.0000521	2.33	0.020	.0000191	.0002232
expenditure	-.001554	.0006937	-2.24	0.025	-.0029136	-.0001945
conpduratn	-.004464	.0010841	-4.12	0.000	-.0065889	-.0023391
training	.3405585	1.308245	0.26	0.795	-2.223554	2.904671
psnw	.3001984	.9746646	0.31	0.758	-1.610109	2.210506
_cons	9.357817	3.747137	2.50	0.013	2.013563	16.70207

Note: 21 failures and 0 successes completely determined.

Appendix 7: Multi collinearity test (VIF) on ologit for food security analysis

. estat vif

Variable	VIF	1/VIF
dependency	2.22	0.449665
famsizehhh	2.11	0.475008
education	1.87	0.535027
training	1.85	0.540696
saving	1.81	0.551661
agehhh	1.79	0.557269
cashtransfer	1.49	0.673397
conpduratn	1.48	0.677870
healthstatus	1.34	0.748013
marstatushhh	1.22	0.818403
credit	1.16	0.858854
sexhhh	1.09	0.917887
psnw	1.05	0.949897
Mean VIF	1.58	

Appendix 8: STATA result of food security and UPSNP participation status of study areas

. tab foodsecurity ppsnp

food security status of household head	participation on productive safety net program		Total
	No	Yes	
Food secured	6	0	6
Mildly food insecurit	29	42	71
Moderately food insecur	20	113	133
Severely food insecur	2	59	61
Total	57	214	271

Appendix 9: STATA result of ordered regression model for food secured analysis

```
. ologit foodsecurity sexhhh agehhh marstatushhh famsizehhh healthstatus eduction dependency credi
> t saving cashtransfer conpduratn training psnw
```

```
Iteration 0: log likelihood = -303.59363
Iteration 1: log likelihood = -226.35174
Iteration 2: log likelihood = -214.62927
Iteration 3: log likelihood = -212.13925
Iteration 4: log likelihood = -212.02384
Iteration 5: log likelihood = -212.02317
Iteration 6: log likelihood = -212.02317
```

```
Ordered logistic regression                Number of obs   =          271
                                           LR chi2(13)    =          183.14
                                           Prob > chi2    =           0.0000
Log likelihood = -212.02317              Pseudo R2      =           0.3016
```

foodsecurity	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
sexhhh	-.0252763	.2735093	-0.09	0.926	-.5613447	.5107921
agehhh	.0310435	.0100255	3.10	0.002	.0113939	.0506932
marstatushhh	.0428819	.1184244	0.36	0.717	-.1892257	.2749894
famsizehhh	-.6342798	.1187978	-5.34	0.000	-.8671192	-.4014404
healthstatus	.484708	.2959564	1.64	0.101	-.0953558	1.064772
eduction	-.0446135	.1208341	-0.37	0.712	-.2814439	.192217
dependency	.272258	.1592362	1.71	0.087	-.0398392	.5843552
credit	.3926133	.3728889	1.05	0.292	-.3382355	1.123462
saving	-.9327766	.3768888	-2.47	0.013	-1.671465	-.1940881
cashtransfer	-.0003612	.0004999	-0.72	0.470	-.001341	.0006186
conpduratn	-.0003789	.0000733	-5.17	0.000	-.0005226	-.0002351
training	.4257529	.3935209	1.08	0.279	-.345534	1.19704
psnw	.4177529	.2789017	1.50	0.134	-.1288844	.9643903
/cut1	-8.836914	1.582734			-11.93902	-5.734811
/cut2	-2.728806	.9020519			-4.496796	-.9608172
/cut3	.5367767	.8937747			-1.21499	2.288543

Appendix10: Odd ratio of food secured analysis

```
. ologit foodsecurity sexhhh agehhh marstatushhh famsizehhh healthstatus education dependency credi
> t saving cashtransfer conpduratn training psnw, or
```

```
Iteration 0: log likelihood = -303.59363
Iteration 1: log likelihood = -226.35174
Iteration 2: log likelihood = -214.62927
Iteration 3: log likelihood = -212.13925
Iteration 4: log likelihood = -212.02384
Iteration 5: log likelihood = -212.02317
Iteration 6: log likelihood = -212.02317
```

```
Ordered logistic regression          Number of obs   =       271
                                     LR chi2(13)      =       183.14
                                     Prob > chi2      =       0.0000
Log likelihood = -212.02317          Pseudo R2      =       0.3016
```

foodsecurity	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]	
sexhhh	.9750405	.2666827	-0.09	0.926	.5704415	1.666611
agehhh	1.03153	.0103416	3.10	0.002	1.011459	1.052
marstatushhh	1.043815	.1236131	0.36	0.717	.8275997	1.316517
famsizehhh	.5303173	.0630005	-5.34	0.000	.4201602	.6693552
healthstatus	1.623701	.4805446	1.64	0.101	.9090494	2.900177
education	.9563671	.1155617	-0.37	0.712	.7546932	1.211933
dependency	1.312926	.2090653	1.71	0.087	.9609439	1.793834
credit	1.480846	.5521909	1.05	0.292	.7130274	3.075483
saving	.3934597	.1482906	-2.47	0.013	.1879715	.8235854
cashtransfer	.9996388	.0004997	-0.72	0.470	.9986599	1.000619
conpduratn	.9996212	.0000733	-5.17	0.000	.9994776	.9997649
training	1.530743	.6023792	1.08	0.279	.7078423	3.310303
psnw	1.518545	.423525	1.50	0.134	.8790755	2.623188
/cut1	-8.836914	1.582734			-11.93902	-5.734811
/cut2	-2.728806	.9020519			-4.496796	-.9608172
/cut3	.5367767	.8937747			-1.21499	2.288543

Appendix11: mfx for food security categories of households

. mfx, predict (outcome (1))

Marginal effects after ologit

y = Pr(foodsecurity==1) (predict, outcome (1))
= .00066679

variable	dy/dx	Std. Err.	z	P> z	[95% C.I.]	X
sexhhh*	.0000169	.00018	0.09	0.927	-.000343 .000376	.413284
agehhh	-.0000207	.00002	-0.86	0.390	-.000068 .000027	48.3985
marsta~h	-.0000286	.00009	-0.33	0.738	-.000196 .000139	1.94096
famsiz~h	.0004227	.00047	0.90	0.370	-.000502 .001347	4.14391
health~s*	-.0003195	.00041	-0.78	0.437	-.001126 .000487	.457565
education	.0000297	.00009	0.34	0.733	-.000141 .0002	3.02583
depend~y	-.0001814	.00023	-0.81	0.421	-.000623 .00026	1.84871
credit*	-.0002303	.00031	-0.73	0.463	-.000845 .000384	.158672
saving*	.0005761	.00068	0.85	0.394	-.000748 .0019	.619926
cashtr~r	2.41e-07	.00000	0.60	0.548	-5.5e-07 1.0e-06	515.074
conpnd~n	2.52e-07	.00000	1.02	0.310	-2.3e-07 7.4e-07	2435.98
training*	-.0003075	.00045	-0.69	0.491	-.001183 .000568	.671587
psnw*	-.0003003	.0004	-0.76	0.448	-.001076 .000475	.664207

(*) dy/dx is for discrete change of dummy variable from 0 to 1

. mfx, predict (outcome (2))

Marginal effects after ologit

y = Pr(foodsecurity==2) (predict, outcome (2))
= .23005186

variable	dy/dx	Std. Err.	z	P> z	[95% C.I.]	X
sexhhh*	.0044746	.04849	0.09	0.926	-.090563 .099513	.413284
agehhh	-.0054892	.00178	-3.08	0.002	-.008979 -.001999	48.3985
marsta~h	-.0075824	.02093	-0.36	0.717	-.048613 .033448	1.94096
famsiz~h	.1121541	.02227	5.04	0.000	.068512 .155796	4.14391
health~s*	-.0847104	.05116	-1.66	0.098	-.184986 .015565	.457565
education	.0078886	.02135	0.37	0.712	-.033964 .049741	3.02583
depend~y	-.048141	.02836	-1.70	0.090	-.103716 .007434	1.84871
credit*	-.0644048	.05678	-1.13	0.257	-.175686 .046877	.158672
saving*	.1549191	.05904	2.62	0.009	.039203 .270635	.619926
cashtr~r	.0000639	.00009	0.72	0.472	-.00011 .000238	515.074
conpnd~n	.000067	.00002	4.15	0.000	.000035 .000099	2435.98
training*	-.0781515	.07497	-1.04	0.297	-.225098 .068795	.671587
psnw*	-.0765124	.05269	-1.45	0.146	-.179775 .026751	.664207

(*) dy/dx is for discrete change of dummy variable from 0 to 1

. mfx, predict (outcome (3))

Marginal effects after ologit

y = Pr(foodsecurity==3) (predict, outcome (3))
 = .65636834

variable	dy/dx	Std. Err.	z	P> z	[95% C.I.]	X
sexhhh*	-.001964	.02139	-0.09	0.927	-.043892 .039964	.413284
agehhh	.0024004	.00109	2.20	0.027	.000267 .004534	48.3985
marsta~h	.0033158	.0092	0.36	0.719	-.014719 .02135	1.94096
famsiz~h	-.049045	.0187	-2.62	0.009	-.085699 -.012391	4.14391
health~s*	.0355157	.02376	1.49	0.135	-.011053 .082085	.457565
education	-.0034497	.00939	-0.37	0.713	-.021863 .014964	3.02583
depend~y	.021052	.01412	1.49	0.136	-.006613 .048718	1.84871
credit*	.0209985	.01519	1.38	0.167	-.008779 .050776	.158672
saving*	-.0525036	.02683	-1.96	0.050	-.105092 .000085	.619926
cashtr~r	-.0000279	.00004	-0.70	0.484	-.000106 .00005	515.074
conpnd~n	-.0000293	.00001	-2.24	0.025	-.000055 -3.7e-06	2435.98
training*	.038049	.04109	0.93	0.354	-.042492 .11859	.671587
psnw*	.037028	.02925	1.27	0.206	-.0203 .094356	.664207

(*) dy/dx is for discrete change of dummy variable from 0 to 1

. mfx, predict (outcome(4))

Marginal effects after ologit

y = Pr(foodsecurity==4) (predict, outcome(4))
 = .11291301

variable	dy/dx	Std. Err.	z	P> z	[95% C.I.]	X
sexhhh*	-.0025275	.02729	-0.09	0.926	-.056016 .050961	.413284
agehhh	.0031094	.00107	2.90	0.004	.001007 .005211	48.3985
marsta~h	.0042952	.01188	0.36	0.718	-.018996 .027586	1.94096
famsiz~h	-.0635318	.01399	-4.54	0.000	-.090953 -.03611	4.14391
health~s*	.0495142	.03132	1.58	0.114	-.011866 .110895	.457565
education	-.0044687	.01211	-0.37	0.712	-.028212 .019274	3.02583
depend~y	.0272704	.01633	1.67	0.095	-.004731 .059272	1.84871
credit*	.0436366	.04581	0.95	0.341	-.046156 .133429	.158672
saving*	-.1029917	.04726	-2.18	0.029	-.195616 -.010367	.619926
cashtr~r	-.0000362	.00005	-0.72	0.472	-.000135 .000062	515.074
conpnd~n	-.0000379	.00001	-5.11	0.000	-.000053 -.000023	2435.98
training*	.0404099	.03577	1.13	0.259	-.029701 .110521	.671587
psnw*	.0397847	.02584	1.54	0.124	-.010868 .090437	.664207

(*) dy/dx is for discrete change of dummy variable from 0 to 1

Appendix 12A: Questionnaire

Addis Ababa
University
(Since 1950)



Household Survey Questionnaire

General Introduction

Dear respondent, my name is Kassaye Amosha Hulluka. I am a Master's degree student at University of Addis Ababa in the Center for Food Security Study. Currently, I am conducting research for my thesis entitled "Analyses of food insecurity situations and the contribution of productive urban safety net program to poor households of Gulele sub-city Addis Ababa, Ethiopia". The objective of this study is to assess causes of food insecurity in urban areas and factors affecting household's participation in the urban productive safety net program. Finally, analyze the contribution of program in enhancing the food security of urban poor living in the study district. The answer given by the respondents for this research will be kept confidentially and only used for the purpose of this study. The researcher also believes that real answers that the respondents give possess high importance that might be used by policy makers, planners and other aid and development agents that work on PSNP as poverty reduction program of the country. Hence, I ask you to be honest and forthcoming in your response. Furthermore, any information that you provide is valuable to this study. I would like to extend my appreciation and thanks for your cooperation and committing your precious time.

Are you willing to participate in the interview?
Yes _____ (continue the interview). No _____ (Thank and stop)

General Instruction

Name of the respondent is required

Make tick mark, or circle while responding the questions with choice

All responses are required to be answered by a household

Please clearly justify the questions that need your suggestions

Identification particulars

Name of enumerator: _____ Date of interview: ___/___/2020

Started time of interviewing: _____ Ended time: _____

Name of *Woreda*: _____ Ketena: _____

Respondent 1 Participant of PSNP 0 Non participant of PSNP

Part I: Socio-demographic characteristics of the household

No	Question	Response	Code
1	Sex of the HHH	0. Female 1. Male	
2	Age of the HHH	In years _____	
3	Religion	1. Orthodox 2. Protestant 3. Catholic 4. Muslim 5. Other (specify): _____	
4	Marital status	1. Single 2. Married 3. Divorced 4. Widowed 5. Separated	
5.	Household size		
5.1.	How many people are living in the house?	Specify the No: _____	
5.2.	How many are in the age group of	Specify the No 1. <15 _____ 2. 15-64 _____ 3. >65 _____	
6.	Household Health status		
6.1.	Do any of household members have a permanent/chronic disease/health problem/disability?	0.No 1.Yes	

6.2.	If yes, what is the kind of disability/disease?	1. Blindness 2. Deafness 3. Dumbness 4. Amputation 5. Mental retardation 6. Paralysis 7. chronic illness 8. Other (specify) :_____	
7.	Household education level		
7.1.	Level of education of the household head	1. Did not attend formal education 2. Read and write 3. Completed Primary school 4. Completed High school 5. Completed higher institution education 6. Other (specify)_____	
7.2.	How many children are currently attending school?	Specify the No:_____	
7.3.	How many children are not currently attending school?	Specify the No:_____	
7.4.	What is the reason for not attending school?	1. Economic constraints 2. Illnesses 3. Looking after siblings 4. Taking care of their guardians 5. Taking care of sick ones 6. Needs to work 7. Others specify_____	
8	Available family labor		
8.1.	Number of economically active members of the HH	Specify the no _____	
8.2.	Number of economically inactive members of the HH	Specify the no _____	

8.3.	What are the causes for those who are economically inactive?	1. _____ 2. _____ 3. _____	
9.	Access to credit and saving services		
9.1.	Did you have access credit service before the program (in 2012)?	1. Yes 0. No	
9.2.	If yes, how many times do you get in last three year?	1. One time only 2. Two time only 3. Three time only 4. Other; specify_____	
9.3.	If yes, what were the sources of the credit?	a. Cooperatives b. Government d. Individuals e. others	
9.4.	Did you access credit service during the program (2008-2012)	0. No 1. Yes	
9.5.	If yes, what were the sources of the credit?	a. Cooperatives c. Individuals b. Government d. others :----- -	
9.6	What was the type of the credit you obtained?	1=Money /cash 2= food commodity 3=home facility 4=job facility 5= Other specify_____	
9.7	Do you get saving access?	0. No 1. Yes	
9.8	If yes, How many Birr do you save months?	_____ Birr	
10.	Income status of the household		
10.1	Please tell us your income?	Daily per-capita income:_____ Birr	
		Monthly per-capita income :_____Birr	
		Annual per-capita income :_____Birr	

10.2	What is your source of income?	1. From program /direct supports 2. From public work 3. Other (specify)_____	
11.	Consumption expenditure	:_____Birr	
12.	Consumption of durable goods	Annual per-capita income :_____Birr	
13.	Distance from development Agent office in kilometer?	Specify:-----	

Part II: Food security condition of household's /HFIS/

No	Questions	Responses	Code
14	What types of training did you get		
15	How many meals per day the household members feed on?	1.One meal 2.Two meals 3.Three meals and above	
16	Is there food access change after joining UPSNP?	1. Not improved 2. Improved	
17	Is there variation of food access for the HH after being beneficiary of UPSNP?	0. No 1. Yes	

Part III: Food access information (Household Food Insecurity Access Scale) and causes of urban food insecurity.

No	Questions	Responses	Code
1	In the past four weeks, did you worry that your household would not have enough food?	0=No (skip to Q2) 1=Yes	
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)	
2.	In the past four weeks, were you or any household member not able to eat the kinds of foods you preferred because of a lack of resources?	0=No (skip to Q3) 1=Yes	

2.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)	
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=No (skip to Q4) 1=Yes	
3.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)	
4.	In the past four weeks, did you or any member have to eat some foods that you really did not want to eat because of lack of resources to obtain other types of food?	0=No (skip to Q5) 1=Yes	
4.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)	
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=No (skip to Q6) 1=Yes	
5.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)	
6.	In the past four weeks, did you or any other household member have to eat fewer meals in a day because there was not enough food?	0=No (skip to Q7) 1=Yes	

6.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)	
7.	In the past four weeks, was there ever no food to eat of any kind in your household because of lack of resources to get food?	0=No (skip to Q8) 1=Yes	
7.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)	
8.	In the past four weeks, did you or any household member go to sleep at night hungry because there was not enough food?	0=No (skip to Q9) 1=Yes	
8.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)	
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=No (questionnaire is finished) 1=Yes	
9.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)	
Root cause of urban food insecurity			

10.	Please indicate us, the reason for the absence of meal in your households?	<ol style="list-style-type: none"> 1. Number of family size 2. Shortage of cash income 3. Food market instability 4. Rising price of food and non-food commodity 5. Low employment opportunity 6. Increased cost of production, transportation and other living necessities 7. Persistent chronic poverty 8. Other (specify)_____ 	
10.a	For how much period of time in this situation absence of meal /food insecurity/?	<ol style="list-style-type: none"> 1. Under six month 2. Above six month 3. One to three years 4. Other:_____ 	
11.	Do you think that these causes are reduced?	<p>0=No (questionnaire is finished)</p> <p>1=Yes</p>	
11.a	How can it be reduced?	<ol style="list-style-type: none"> 1. Using family planning 2. Adopting an urban PSNP 3. Improving the grain subsidy programme 4. Strengthening Consumers Cooperatives 5. Promoting employment 6. Expanding commercial and urban food production and processing 7. Improving child nutrition 8. Other(specify)_____ 	

Part IV: Questions about the PSNP program

30	Do you know when the PSNP started?	0=No 1=Yes	
31	Did you participate in PSNP program?	0=No 1=Yes	
32	State the types of program component you participated?	1. _____	
33	Who selected you to participate in the program?	1=Program office 2=Ketena administration 3=Office of agriculture 4=the community 5=Combination of some/both of them	
34	For how many years did you participated in the PSNP?	1. One 4. Four 2. Two 5. Five 3. Three	
35	Do you get training opportunity after you joined this program?	0. No 1. Yes	
36	If Yes, what kinds of training provided from this program?	1. Life skill training 2. Entrepreneurship 3. Other (specify) _____	
37	Do you participate in Social Net Works /institutions?	No 1. Yes	
38	Do you get food Aid from this program?	0. No 1. Yes	
39	If No why not get food Aid please justify in short?	_____	
40	Please tell us the level of your satisfaction on the targeting/ recruitment of beneficiaries	1. Very unsatisfied 2. Somehow unsatisfied 3. Neutral 4. Somehow satisfied 5. Very satisfied 6. Not applicable	
41	Please tell us the level of adequacy of public work and direct support	1. Very unsatisfied 2. Somehow unsatisfied	

	payment?	3. Neutral 4. Somehow satisfied 5. Very satisfied 6. Not applicable	
42	Please tell us extensions services provide from government?	1. Health extension service 2. Industry extension service 3. Other (specify) _____	
43	In your opinion, in which of the following parameters did the program has a positive impact?	1. Creating access to education 2. In improving human health 3. In improving communications like health center, market 4. In improving sanitation & hygiene 5. In increasing income 6. In alleviating poverty 7. Environmental protection	
44	Are you participating on another urban program?	0. No 1. Yes	
45	If Yes, what kinds of program?	Please, Specify: _____	

THANK YOU!

Guiding questions for Focus Group Discussion /FGD/

Date _____ *Woreda* _____ *Ketena* _____

Focus Group No _____ Total No_of people in the group: _____

Description of the group: _____

Conductor and assistance: _____

Participants

No	Name	Gender	Age	Marital status	Highest education qualification	Employment status
1						
2						
3						
4						
5						
6						
7						
8						

1. What are the causes of urban household food insecurity?
2. What are developmental solutions?
3. How do you describe the program’s targeting?
4. What are the adverse effects /contribution/ UPSNP towards the beneficiary households and community?
5. What are the criteria’s practices of selection beneficiary in your *Ketenas, Woredas*?
6. In what way does the UPSNP contribute to address the urban community problem?
7. Can you tell how the participation and involvement of beneficiaries looks like?

THANK YOU!

Guiding questions for semi-structured interview

Date of interview: _____

Interview No: _____

Name of interviewee: _____

Description of the interviewee: _____

1. Can you explain the causes of food insecurity condition in this *Woreda*?
2. What are developmental solutions?
3. Explain about the number of beneficiary individuals and households, females and males in the *Woreda*.
4. How do you assess the effect of UPSNP on food security status of beneficiary households in this *Woreda* and sub-city? (changes/progress, effectiveness, limitations, challenges)
5. What adverse effect does UPSNP has on households, and community food security status?
6. What looks like the perception of the UPSNP in this *Ketena, Woreda* and sub-city?
7. What are targeting criteria of program?

THANK YOU!

Appendix 12B: Questionnaire in Amharic translation

Addis Ababa
University
(Since 1950)



በአዲስ አበባ ዩኒቨርሲቲ

የልማት ጥናት ኮሌጅ

የምግብ ዋስትና ጥናት የትምህርት ክፍል

በአዲስ አበባ ከተማ አስተዳደር ጉለሌ ክ/ከተማ ወረዳ 01፣04፣07 እና 09 ለሚገኙ የከተማ ልማታዊ ሴፍቲኔት ተጠቃሚዎች እና ተጠቃሚ ያልሆኑ ቤተሰቦች የሚሞላ መጠይቅ ነው።

ውድ የዚህ ጥናት ተሳታፊዎች።

እኔ ካሳዬ አሞሻ ሁሉቃ እባላለሁ። በአዲስ አበባ ዩኒቨርሲቲ የልማት ጥናት ኮሌጅ በምግብ ዋስትና ጥናት የትምህርት ክፍል የምረቃ ተማሪ ስሆን ለማስተርስ ዲግሪ ማሟያ ጽሁፌ በአዲስ አበባ ከተማ አስተዳደር በጉለሌ ክ/ከተማ ለሚገኙ አራት ወረዳዎች ውስጥ ለሚገኙ ቀጠናዎች ተለይቶ የከተማ ምግብ ወስነትና አለመረጋገጥ መንስኤዎችና የከተማ ልማታዊ ሴፍቲኔት ፕሮግራም በከተማ በዝቅተኛ የኑሮ ደረጃ የሚኖሩ ዜጎችን የምግብ ዋስትና ለማረጋገጥ ያለው አንድምታ ምን እንደሚመስል ለመገምገም ሲሆን ትንተና ለማከናወን እርስዎ የሚሰጡት ትክክለኛ መልስ ለጥናቱ ውጤት አስተማማኝነት ወሳኝ ነው። ለቃለ መጠይቁ የሚሳተፉት በእርስዎ ፍቃድኝነት ሲሆን አጠቃላይ አራት ክፍሎች ያሉትና 25 ደቂቃ ልወስድብዎት ይችላል።

ስለትብብርዎ በቅድሚያ አመሰግናለሁ!!

የቃለ መጠይቁ መለያ ቁጥር: _____

ቃለ መጠይቁን ለመሙላት የጀመሩበት ሰዓት: _____ የጨረሱበት ሰዓት: _____

ቀን: __/__/2012ዓ.ም ወረዳ: _____ ቀጠና: _____

እባክ (O) የክብ ምልክት ቢቻ ያስቀምጡ።

የከተማ ሴፍቲኔት ተጠቃሚ ናት? 1. አዎ 0. አይደለሁም

ክፍል 1: ከማህበራዊና ሰብዓዊ ሁኔታዎች ጋር የተያያዙ ጥያቄዎች:-

ተ/ቁ	ጥያቄዎች	ኮድ	ምርመራ
1.	የታ	1. ወንድ 0. ሴት	
2.	በቤተሰቡ ውስጥ ያለው ሀላፊነት?	1. አባወራ	
		2. እማወራ	
		3. ሌላ /ይግለጽ/: _____	

3	እድሜ	_____	
4.	ሀይማኖት	1. ኦርቶዶክስ ክርስቲያን	
		2. ሙስሊም	
		3. ፕሮቴስታንት	
		4. ካቶልክ	
		5. ሌላ (ይገለጽ) _____	
5.	የጋብቻ ሁኔታ	1. ያገባ/ች	
		2. ያላገባ/ች	
		3. የተፋታ/ታች	
		4. በሞት የተያት	
6	የቤተሰብ ሁኔታ		
	የቤተሰብ ብዛቶ ስንት ነው?	: _____	
	በየትኛው የእድሜ ክልል ውስጥ ናቸው?	1. ከ0 - 15 2. ከ16 - 34 3. ከ35 - 50 4. ከ51 - 65 5. ከ65 አመት በላይ: _____	
7	የጤና ሁኔታ		
7.1	ከቤተሰቦች አባላት ውስጥ የጤና ቸግር ያለበት ሰው አለ እንዴት?	0: የለም 1: አዎ	
7.2	መልሶ "አዎ" ከሆነ ምን ዓይነት የጤና ቸግር ነው?	1. ህመም 4. ሌላ ካለ ግለፅ 2. እድሜ 3. የአካል ጉዳት : _____	
8	የትምህርት ሁኔታ		
8.1	የይርሶ ትምህርት ደረጃ ስንት ነው?	1. መደበኛ ክፍል ያልተከታተለ 2. ማንበብና መፅሐፍ የሚችል 3. አንደኛ ደረጃ (1-8) 4. ሁለተኛ መስናቂት ትምህርት (9-12) 5. የኮላጅ ምሩቅ 6. የዲግሪ ምሩቅ 7. ማስተር እና ከዚያ በሊይ	
8.2	በቤተሰብ ስንት ልጆች ናቸው ት/ት እየተከታተሉ የሉት?	_____ ወንድ _____ ሴት	
8.3	በቤተሰብ ስንት ልጆች ናቸው ት/ት የማይከታተሉ የሉት?	_____ ወንድ _____ ሴት	
8.4	ልጆች ት/ት የማይከታተሉበት ምክንያት ምንድነው?	1. ዝቅተኛ የኑሮ ደረጃ ላይ መገኘታችን 2. በአርጅና 3. ህመምተኛ ስላሉ 4. የስራ ፍላጎት 5. ሌላ ካለ /ይግለጽ/: _____	
8.5	ከቤተሰብ አባላት ውስጥ ስንት ሰው ስራ እና ግቢ ያለው?	_____ ወንድ _____ ሴት	
8.6	ከቤተሰብ አባላት ውስጥ ስንት ሰው ስራ እና ግቢ የሌላቸው?	_____ ወንድ _____ ሴት	
8.7	የራሳቸው ስራና ግቢ እንዳይኖራቸው ያደረጋቸው ምክንያት	_____ ::	

	ምንድነው?		
9	የብድርና ቁጠባን ሁኔታ		
9.1	ይህን ፕሮግራም ከመቀላቀሎ በፊት በ2008 ዓ.ም የብድር አገልግሎት አግኝቷል?	0: የለም 1: አዎ	
9.2	መልሶ "አዎ" ከሆነ ስንት ጊዜ አገልግሎቱን አገኙ?	1. አንድ ጊዜ ቢቻ 2. ሁለት ጊዜ ቢቻ 3. ሶስት ጊዜ ቢቻ 4. ሌላ ካለ /ይግለጹ/:	
9.3	መልሶ "አዎ" ከሆነ ብድሩ ከማን አገኙ?	1. ከግል ድርጅት 2. ከመንግስት 3. ከግለሰብ 4. ሌላ ካለ /ይግለጹ/:	
9.4	ከ2009 - 2012 ዓ.ም የብድር አገልግሎት አግኝቷል?	0: የለም 1: አዎ	
9.5	መልሶ "አዎ" ከሆነ ብድሩ ከማን አገኙ?	1. ከግል ድርጅት 2. ከመንግስት 3. ከግለሰብ 4. ሌላ ካለ /ይግለጹ/:	
9.6	ምን አይነት የብድር አገኙ?	1. ገንዘብ 2. የምግብ ፍጆታ ዕቃዎች 3. የቤት እቃዎች 4. የስራ እቃዎች 5. ሌላ ካለ /ይግለጹ/:	
9.7	የቁጠባ አጋጣሚዎችን ተጠቅመው ይቆጥባሉ ?	0: የለም 1: አዎ	
9.8	መልሶ "አዎ" ከሆነ ምን ያህል ገንዘብ በየወሩ ይቆጥባሉ?		
	የገቢ ሁኔታ		
10	ምን ያክል ገቢ የገኛሉ?	1. የቀን ገቢ:- _____ ብር 2. የወር ገቢ:- _____ ብር 3. የአንድ አመት _____ ብር	
10.1	የገቢዎ ምንጭ ብገልጹልን?	1. ከቀጥተኛ ሴፍትኔት ፕሮግራም 2. ከህዝብ ለህዝብ ከሚገኝ 3. ከሌላ ከሆነ ይግለጹት:	
11	ጠቅላላ በቀንና በወር ውስጥ ወጭዎ ስንት ይሆናል?	የቀን _____ ብር የወር _____ ብር	
12	ጠቅላላ አመታዊ የቋሚ እቃወጭዎ ስንት ይሆናል?	ይግለጹ: _____	
13	የእድገት ተቋማት ምን ያክል ርቀት ላይ ይገኛሉ?	ይግለጹ: _____	

ክፍል 2: ከቤተሰብ የምግብ ወለት ጋር ተያያዥ ጥያቄዎች

14	ምን አይነት ስልጠናዎችን አገኙ ፕሮግራሙን ሳትቀላቀዱ?	ይግለጹ: _____	
15	እባኩ ቤተሰብ በቀን ስንት ጊዜ ምግብ ይመጣባሉ?	1. አንድ ጊዜ 2. ሁለት ጊዜ 3. ሶስት ጊዜና ከዛ በላይ	
16	እባኩ ይህንን ፕሮግራም ከተቀላቀሉ ይህ የምግብ አቅርቦት /የማግኘት/ በቤት ውስጥ ጨምሯል?	0. አይ አልጨመረም 1. አዎ ጨምሯል	
17	እባኩ ይህንን ፕሮግራም ከተቀላቀሉ ይህ የተለያዩ የምግብ አይነቶችን የማግኘት በቤት ውስጥ ጨምሯል?	0. አይ አልጨመረም 1. አዎ ጨምሯል	

ክፍል 3፡ ከቤተሰብ የምግብ ወሰን ጋር ተያያዥ ጥያቄዎች

Household Food Insecurity Access Scale (HFIAS)				ምርመራ
(አሌፎአሌፎ፡ 1 እስከ 2 ጊዜ፣ አንዳንድ ጊዜ፡ 3 እስከ 10፡ ሁል ጊዜ፡ ከ10 ጊዜ በሊይ)				
1	ባለፈው 4 ሳምንት ቤተሰቡ በቂ ምግብ ባለማግኘቱ የተጨነቀበት ቀን አለ? ወይም ምግብ ለማግኘት የተጨነቀበት ቀን አለ? (ከሌለ ወደ ጥያቄ 2 ይሂዱ)	1: አዎ	0: የለም	
1a	በየምን ያህል ጊዜ ይከሰታል?	1: አልፎ አልፎ 2: አንዳንድ ጊዜ	3: ሁል ጊዜ	
2	ባለፈው 4 ሳምንት ማንኛውም የቤተሰቡ አባል በሪሶርስ/በሁበት እጥረት ምክንያት የሚሰማውንና የሚወደውን በቂ ምግብ ማግኘት ያልቻለ? (ከሌለ ወደ ጥያቄ 3 ይሂዱ)	1: አዎ	0: የለም	
2a	በየምን ያህል ጊዜ ይከሰታል?	1: አልፎ አልፎ 2: አንዳንድ ጊዜ	3: ሁል ጊዜ	
3	ባለፈው 4 ሳምንት ማንኛውም የቤተሰቡ አባል በሪሶርስ/በሁበት እጥረት ምክንያት ውስን የምግብ ዓይነት (limited variety) የተመገበ አለ? (ከሌለ ወደ ጥያቄ 4 ይሂዱ)	1: አዎ	0: የለም	
3a	በየምን ያህል ጊዜ ይከሰታል?	1: አልፎ አልፎ 2: አንዳንድ ጊዜ	3: ሁል ጊዜ	
4	ባለፈው 4 ሳምንት ማንኛውም የቤተሰቡ አባል በሪሶርስ/በሁበት እጥረት ምክንያት ጥቂት የምግብ ዓይነት ብቻ የተመገበ እና ሌሎች የምግብ ዓይነቶችን መመገብ የማይፈልግ አለ? (ከሌለ ወደ ጥያቄ 5 ይሂዱ)	1: አዎ	0: የለም	
4a	በየምን ያህል ጊዜ ይከሰታል?	1: አልፎ አልፎ 2: አንዳንድ ጊዜ	3: ሁል ጊዜ	
5	ባለፈው 4 ሳምንት ማንኛውም የቤተሰቡ አባል በቂ ምግብ ባለመኖሩ ምክንያት ከሚያስፈልገው በታች ትንሽ የምግብ ዓይነት ብቻ የተመገበ አለ? (ከሌለ ወደ ጥያቄ 6 ይሂዱ)	1: አዎ	0: የለም	
5a	በየምን ያህል ጊዜ ይከሰታል?	1: አልፎ አልፎ 2: አንዳንድ ጊዜ	3: ሁል ጊዜ	
6	ባለፈው 4 ሳምንት ማንኛውም የቤተሰቡ አባል በቂ ምግብ ባለመኖሩ ምክንያት በቀን ከሚያስፈልገው በጣም ያነሰ ምግብ የተመገበ አለ? (ከሌለ ወደ ጥያቄ 7 ይሂዱ)	1: አዎ	0: የለም	
6a	በየምን ያህል ጊዜ ይከሰታል?	1: አልፎ አልፎ 2: አንዳንድ ጊዜ	3: ሁል ጊዜ	
7	ባለፈው 4 ሳምንት ማንኛውም የቤተሰቡ አባል በሪሶርስ/በሁበት እጥረት ምክንያት ፈጽሞ ምግብ ያላገኘ አለ? (ከሌለ ወደ ጥያቄ 8 ይሂዱ)	1: አዎ	0: የለም	
7a	በየምን ያህል ጊዜ ይከሰታል?	1: አልፎ አልፎ 2: አንዳንድ ጊዜ	3: ሁል ጊዜ	
8	ባለፈው 4 ሳምንት ማንኛውም የቤተሰቡ አባል በቂ ምግብ ባለመኖሩ ምክንያት እንደራብው የተኛ አለ? (ከሌለ ወደ ጥያቄ 9 ይሂዱ)	1: አዎ	0: የለም	
8a	በየምን ያህል ጊዜ ይከሰታል?	1: አልፎ አልፎ 2: አንዳንድ ጊዜ	3: ሁል ጊዜ	
9	ባለፈው 4 ሳምንት ማንኛውም የቤተሰቡ አባል በቂ ምግብ ባለመኖሩ ምክንያት ሙሉ ቀንና ለሊት ምንም ዓይነት ምግብ ያልተመገበ አለ?	0: የለም፣ አዎ		
9a	በየምን ያህል ጊዜ ይከሰታል?	1: አልፎ አልፎ 2: አንዳንድ ጊዜ	3: ሁል ጊዜ	
የምግብ እጥረት መንስኤዎችን መለያ ሰንጠረዥ				
10	እባክዎ ምግብ እንዳይኖር መንስኤ የሆነው ነገር ይነገሩን??	1: የቤተሰብ ብዛት		

		2: የጥሬ ገንዘብ እጥረት 3: የምግብ ዋጋ መለዋወጥ 4: የምግብና ምግብ በልሆኑ የዋጋ መጨመር 5: ሰፊ የሥራ አጋጣሚ አለመኖር 6: የማምረቻ፣ የጭነት እንዲሁም የሌሎች ዋጋ መጨመር 7: የቆየ አስከፍ ድህነት 8: ሌላ ካለ ይግለጹት:-	
10 a	ለምን ያህል ጊዜ የምግብ እጥረት በቤቶ ተከሰቷል?	1: ከ6 ወር በታች 2: ከ6 ወር በላይ 3: ከ1 - 3 አመት 4: ሌላ ካለ ይግለጹት:-	
11	የምግብ እጥረት ለመቀነስ ይቻላል?	1: አዎ 0: የለም	
11 a	መልሶ "አዎ" ከሆነ እንዴት የምግብ እጥረት ልቀንስ ይችላለ?	1. የቤተሰብ ምጣኔ በመጠቀም 2. የከተማ ምግብ ዋስትና ሴኔትጌት መተግበር 3. የድጎማ ፕሮግራሞችን በማስፋፋት 4. የሥራ ቅጥርን በመበረታታት 5. ትላልቅ የምግብ ማምረቻና ማቀነባበሪያ ኩባንያ ማስፋፋት 6. የልጆችን ምግብና አመጋገባቸውን በማሻሻል 7. ሌላ ካለ ይግለጹት:-	

ክፍል 4-ኛው ምግብ ዋስትና ፕሮግራም የሚመለከቱ ጥያቄዎች

30	የምግብ ዋስትና ፕሮግራም መች እንደተጀመረ ያውቃሉ?	0. አይ አላወቀውም 1. አዎ አቀዋለው	
31	በምግብ ዋስትና ፕሮግራም ላይ ይሳተፋሉ?	0. አይ አልሳተፍም 1. አዎ እሳተፋለው	
32	መልሶ "አዎ" ከሆነ ለጥያቄ ቁ # 31, በምን አይነት የምግብ ዋስትና ፕሮግራም ላይ ይሳተፋሉ?	1. በቀጥተኛ ተጠቃሚነት 2. በህዝብ ለህዝብ ስራ 3. ሌላ ካለ ግለጽ: _____	
33	ፕሮግራሙ ላይ እንድትሳተፉ ማን መረጣችሁ?	1. የፕሮግራሙ ቢሮ 2. ከቀጠና አስተዳዳሪዎች 3. የወረዳው ሴኔትንት ባለሙያዎች 4. የአካባቢው ህዝብ 5. ሁሉም አብረው ሆነው	
34	በምግብ ዋስትና ፕሮግራም ላይ መሳተፍ ከጀመሩ ስንት አመት ሆኖት?	1. አንድ 2. ሁለት 3. ሶስት 4. አራት 5. አምስት	
35	ፕሮግራሙ ውስጥ ከተቀላቀሉ በኋላ ስልጠና ማግኘት ችለዋል	0. አይ አላገኘሁም 1. አዎ አግንቻለው	
36	መልሶ "አዎ" ከሆነ: ምን አይነት ስልጠና ከፕሮግራሙ አገኙ?	1. የህይወት ክህሎት ስልጠና 2. የሥራ ፈጠራ ስልጠና 3. ሌላ ካለ ግለጽ: _____ _____	
37	በማህበራዊ አግለገሎት ላይ ይሳተፋሉ?	0. አይ 1. አዎ	
38	ከፕሮግራሙ የምግብ እርዳታ አግኝተዋል?	0. አይ 1. አዎ	

