



Indira Gandhi National Open University, New Delhi

**Economic Strengthening Intervention
For Food Security and Poverty Reduction**

**The case of *Urban HIV and AIDS Nutrition and Food Security
Project* participants in Dessie**

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November 2016

Addis Ababa

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Project participants in Dessie

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Declaration

I hereby declare that the Dissertation entitled **ECONOMIC STRENGTHENING INTERVENTION FOR FOOD SECURITY AND POVERTY REDUCTION: *THE CASE OF URBAN HIV AND AIDS NUTRITION AND FOOD SECURITY PROJECT PARTICIPANTS IN DESSIE*** submitted by me for the partial fulfillment of the M.A. in Rural Development to Indira Gandhi National Open University, (IGNOU) New Delhi is my own original work and has not been submitted earlier either to IGNOU or to any other institution for the fulfillment of the requirement for any course of study. I also declare that no chapter of this manuscript in whole or in part is lifted and incorporated in this report from any earlier work done by me or others.

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Dedication

I dedicated this work to my determined mother,

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Table of Contents

Acronyms	vi
Abstract	viii
CHAPTER 1: INTRODUCTION	1
1.1 Background	1
1.2 Statement of the problem	5
1.3 Objective of the study	7
1.4 Significance of the study	7
1.5 Research questions	8
1.6 Scope of the study	9
1.7 Limitations of the study	9
1.8 Organization of Research Report	10
CHAPTER 2. LITERATURE REVIEW	11
2.1 Concepts	11
2.1.1 Food Security:	11
2.1. 2 Poverty	13
2.1.3 Economic strengthening.....	14
2.1.4 MSEs and IGA	15
2.2 Economic Strengthening Interventions	16
2.3 Policy Framework of Ethiopia	19
2.4 Measurement of Food Security and Poverty	20
2.4.1 Measuring Food Security	20
2.4.2 Measuring Poverty	23
2.5 Empirical findings and Experience	25
2.6 Conceptual framework of the study	27
CHAPTER 3: RESEARCH METHODOLOGY	30
3.1 Description of the study area.....	30
3.2 Research design and Sampling.....	32
3.2.1 Study population selection.....	32

3.2.2 Sample size determination	32
3.2.3 Sampling technique.....	33
3.2.4 Sampling procedure	34
3.3 Type and sources of data	35
3.4 Data collection.....	35
3.4.1 Data collection instruments.....	35
3.4.2 Data collection procedure	36
3.4.3 Enumerators training and mobilization.....	37
3.5 Data analysis.....	37
3.5.1 Methods of data analysis:.....	37
3.5.2 Variables and Measurements	40
CHAPTER 4: RESULTS AND DISCUSSION.....	48
4.1.2 Food Security Status assessment	50
4.1.3 Poverty status assessment	54
4.1.4 Microenterprise performance description	57
4.1.5 Determinant factors influencing performance of microenterprise.....	60
4.2 Discussion	65
4.2.1 Change on food security status	65
4.2.2 Poverty status	68
4.2.3 Factors determining microenterprise performance	69
CHAPTER 5: SUMMARY, CONCLUSION AND RECOMMENDATION.....	72
5.1 Summary	72
5.2 Conclusion.....	75
5.3 Recommendation.....	76
Reference	81
Appendices:.....	86
Appendix 1: Interview Questionnaire	86
Appendix 2: Interview Schedule	98
Appendix 3: Demographic Characteristics of Study Households	100

Appendix 4: Tables of factors that determine performance microenterprises	101
Appendix 5: Proposal of the study	105
Appendix 6: Advisor's Curriculum vitae	124

List of Tables

Table 1: Distribution of sample respondents by sub-city/kebele	34
Table 2: Food Security Status of respondents as categorized by FCS (N=77)	50
Table 3: Sex of study samples as categorized by FS Status of respondents	51
Table 4: Relationship between Age and FS Status of respondents as categorized by FCS	52
Table 5: Education level in relation to FS Status of respondents as categorized by FCS	53
Table 6: Household size in relation to FS Status of respondents as categorized by FCS	54
Table 7: Poverty Status of respondents as per entry year to ES and sex of study samples	55
Table 8: Poverty Status of respondents as their per day per person income ETB	56
Table 9: Current performance of microenterprise per type	57
Table 10: Microenterprises Performance status, current, Vs entry year to the ES intervention ...	58
Table 11: Microenterprise performance status by Sex of sample	59
Table 12: Microenterprise performance status in relation to Years of experience on business ...	59
Table 13: Saving performance of sampled ES participants in their VSLAs	62
Table 14: Challenges experienced by respondents to get credit from MFI	63
Table 15: Challenges faced by respondents while working on rented house/place	64
Table 16: Income per person/day Vs FS Status of respondents as categorized by FCS	65
Table 17: Relationship between Food Security Status and Microenterprises' Performance	66
Table 18: Poverty status cross tabulated with Food security Status.	68
Table 19: Poverty Status cross tabulated with Microenterprises' Performance of respondents. ..	69
Table 20: Summary of Economic Strengthening Intervention	73

List of Figures

Figure 1: Map of Africa and Ethiopia.....	1
Figure 2: Conceptual framework of the study	28
Figure 3: Mapping of institutional linkage and responsibilities	29
Figure 4: Map of Ethiopia and Desse City.....	30
Figure 5: Family size of sampled respondents.....	49
Figure 6: Dependent members of households, below 14 and above 64.....	49
Figure 7: Income per person per day of study respondents (N=77)	56
Figure 8: Change on FS status of First batch ES participants at Baseline and Study.....	67
Figure 9: Change on FS status of Second batch ES participants at Baseline and Study	67

Acronyms

ACSI:	Amhara Credit and Saving Institute
AIDS:	Acquired Immunity Deficiency Syndrome
ANRS:	Amhara National Regional State
BDS:	Business Development Services
CSA:	Central Statistical Agency
ES:	Economic Strengthening
ETB:	Ethiopian Birr
FMSEDA:	Federal Micro and Small Enterprises Development Agency
GTP:	Growth and Transformation Plan
MFI:	Micro Finance Institutions
MSEs:	Micro and Small Enterprises
NGOs:	Non-Governmental Organizations
IGAs:	Income Generating Activities
Iqub:	An informal and traditional short-term association to save and receive collected money by drawing and turn by turn for all its members.
FDRE:	Federal Democratic Republic of Ethiopia
HH:	Household
HIV:	Human Immunodeficiency Virus
Kebele or sub-city:	Lowest administrative region Dessie town
LIFT:	Livelihood and Food Security Technical Assistance
MDG:	Millennium Development Goals
NSPP:	National Social Protection Policy

NSSN:	Nutrition and Social Safety Net
OVC:	Orphan and vulnerable Children
PEPFAR:	President’s Emergency Plan For AIDS Relief of USA
PLHIV:	People Living with HIV/AIDS
PMTCT:	Preventing Mother-To-Child Transmission
PSNP:	Productive Safety Net Programme
SHG:	Self Help Group
TVED:	Technical Vocational and Enterprises Development
UHANFSP:	Urban HIV and AIDS and Nutrition and Food Security Project
UPSNP:	Urban Productive Safety Net Project
USAID:	United States Agency for International Development
USD:	US Dollar
VSLA:	Village Saving and Loan Association
WB:	World Bank
WFP:	United Nations World Food Programme

Abstract

Urban poverty is a widely and deep-rooted problem in both large and small cities of Ethiopian urban areas. Focus on people living below the poverty line, and livelihood support aims to diversify and improve household level income in the long run considered as core principles for reducing vulnerability and poverty, and promoting more productive livelihoods. Therefore, Economic Strengthening (ES) intervention were implemented under Urban HIV and AIDS and Nutrition and Food Security (UHANFS) project towns, where Dessie city became the one to be covered by the program; and also purposefully selected for this evaluative study.

The major objective of this research was to assess effectiveness of the ES intervention towards achieving food security and poverty reduction of its project participants. To conduct the study, from total 340 ES participants, 77 of them selected using systematic random sampling from first (2012) and second (2013) project batches that already received full package of the intervention by 2015 and 2016, respectively.

To determine change on food security status, food consumption score (FCS) method was used as a tool to categorize by four FS status; and to assess status of poverty, poverty line against income per person per day using World Bank's Purchasing-Power Parity (PPP) conversion was administered, which become 13.87 ETB as cut-off point.

Results of the study pronounced that 64 (83.1%) become food secured; 94.8% escaped the poverty line; and 72 (93.5%) of microenterprises' performance achieved improvement. Hence, the study concluded, the ES intervention was an effective intervention, which was well designed and suited for its urban impoverished participants restrained by PLHIVs status (100%), gender (80%) and illiteracy (31.17%) – but succeeded to improve their livelihood.

Despite the attained successes, the ES participants were surrounded with bottleneck determinant variables, for example inaccessible credit services from MFI (58.5%) and inconvenient working premises (40%). The research, hence, speaks out that Business Development Services (BDS) facilitation should be ensured for the ES participants as well as for other disadvantaged population groups to assist them establish and expand microenterprises combat urban poverty.

CHAPTER 1: INTRODUCTION

1.1 Background

Ethiopia, officially known as the Federal Democratic Republic of Ethiopia (FDRE), is a sovereign state located in the horn of Africa. It shares a border with Eritrea to the north and northeast, Djibouti and Somalia to the east, Sudan and South Sudan to the west, and Kenya to the south. Ethiopia is the most populous, nearly 100 million and women are about 50.23%, and landlocked country in the world, as well as the second-most populous nation on the African continent after Nigeria (World Fact Book, 2016). Agriculture accounts for almost 41% of the gross domestic product (GDP), 80% of exports, and 80% of the labor force. Many other economic activities depend on agriculture, including marketing, processing, and export of agricultural products. Production is overwhelmingly by small-scale farmers and enterprises, and a large part of commodity exports are provided by the small agricultural cash-crop sector. Principal crops include coffee, legumes, oilseeds, cereals, potatoes, sugarcane, and vegetables (Wikipedia, 2016).



Figure 1: Map of Africa and Ethiopia

(Source: World Fact Book, 2016)



Food security is a critical problem for Ethiopian populations, both in urban and rural areas. There are 8.3 million chronically food insecure households in 319 woredas of Ethiopia (FDRE, NSPP, 2012). According to the 2010/11 household income, consumption and expenditure survey (HICES), the proportion of poor people in the country is estimated to be 29.6% in 2010/11 (FRDE-FSS, 2012). The percentage of the population under the National Poverty Line has fallen from 44.2% in 1999 to 29.6% in 2010, with the rural poverty rate falling from 45.4% to 30.4% over the same period. Ethiopia has also made significant progress in reducing hunger, with a 39.24% reduction in the Global Hunger Index from 1990 to 2013 (FDRE-NSPP, 2012).

Establishing Ethiopia's social protection framework is part and parcel of an integrated approach to the progressive realization of social and economic rights noted in article 41 of the Ethiopian constitution, August 1995. Reducing vulnerability and poverty, and promoting more productive livelihoods was one of the objectives set by the government of Ethiopia in March 2012 under the National Social Protection Policy (NSPP). This was a long-term agenda that required investments in social assistance (safety nets), social insurance, health insurance, livelihood and employment schemes (skills development and support to entrepreneurship and household enterprise development) and improving the coverage and quality of basic services, including social welfare services for people in especially difficult circumstances, (FDRE-NSPP, 2012).

Urban HIV and AIDS Nutrition and Food Security (UHANFS) Project is PEPFAR¹ funded investment implemented under the overall responsibility of United Nations World Food Programme (UN-WFP) throughout Ethiopia in nine regions and two city administrations, where

¹ PEPFAR: US President's Emergency Plan For Aids Relief

Amhara is one of the nine. In Amhara region, the project commenced implementation in seven towns from June 2012 onwards; while having a five years intervention scheme.

The UHANFSP has two major programs to address the nutrition and food security problems of the target beneficiaries who are infected and affected by HIV/AIDS known as People Living with HIV/AIDS (PLHIV). The first program was *Nutrition and Social Safety Net (NSSN)* which focused to meet the objectives of improving Anti-Retroviral Treatment (ART) treatment retention and adherence; eliminating the chance of mother to child HIV transmissions; increasing school enrollment and attendance; reduce the rate of low birth weight and smoothen house hold food consumptions. The second program was Economic Strengthening (ES) which was dedicated to capacitate adult PLHIVs to engage into Income Generating Activities (IGA) or microenterprises for their livelihood. Those PLHIVs who graduated from their nutrition and social safety net services follow up then entitled for the ES. The ES component of the project had an ultimate objective of attaining food security sustainably and reducing the effect of HIV/AIDS on health through building capability to generate income base for the economically poor beneficiaries.

This dissertation work, hence, made an exclusive focus on the ES part of the UHANFS project towards attaining food security and eliminating poverty in urban areas.

The NSSN component of the project has been addressing larger number of PLHIV groups such as pregnant and lactating mothers attending Preventing Mother-To-Child Transmission (PMTCT) services, adult PLHIVs and Orphan and vulnerable Children (OVC). Its major activities were mainly focused on: preliminary nutrition assessment, counseling and treatment through therapeutic food; bimonthly beneficiary discussions on health and nutrition related matters; referral linkage; home based care for bedridden PLHIVs; social mobilization on selected and sensitive matters,

such as stigma and discrimination; condom promotion and distribution; and monthly nutritious food redemptions.

The ES intervention had sets of activities to be vested for the targeted food insecure PLHIVs.

Major activities undertaken for the project participants under ES intervention were:

- Initially baseline assessment conducted and categorized the ES participants into three groups. That are, provision (those food insecure and with sever hunger), protection (food insecure and with moderate hunger), and promotion (food insecure without food hunger). Different packages of activities and supports provided for each category based on the needs they require;
- Then, training provided on ‘saving and loan methodology’ and ‘preliminary business and financial education’;
- The ES participants organized into Village Saving and Loan Associations (VSLAs) within their inhabiting kebeles to be able to meet frequently and accessibly. VSLAs are one model of micro finance system that enable volunteered people to save in group and to create capacity to provide loan for their members. VSLAs had similarities, despite some differences, with Self Help Groups (SHGs) and (SACCO) (Amha, 2001).
- Once the ES participants started saving and loan, they were provided with technical trainings in their areas of interest and potential, which later they start or expand their microenterprise or Income Generating Activities (IGA) that followed by intensive business skills training; and

- Then, matching fund provided firstly in the form of loan, and following, based on their IGAs' performance, the money released for grant as reward (WFP, 2012).

1.2 Statement of the problem

Investing in social protection reduces the vulnerabilities of poor people to external shocks such as aggregate income shocks, instability in the price of essential commodities, and the effect of climate change. Financial resources that spent on social protection re-circulate in the economy enhancing demand and supply, thus, contributing to growth. Effective social protection contributes to social cohesion resulting in accelerated achievement of socio-economic development including improved security, sustained peace and greater social stability (FDRE-NSPP, 2012).

Urban poverty rates in Ethiopia are quite high, particularly in large cities. The urban-rural poverty rate differential is low in comparison to other countries. The total national poverty head count in 2011 was 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 (FDRE-UPSNP, 2015).

Urban poverty is a widely and deep-rooted problem in both large and small cities of Ethiopia. Due to higher unemployment rate, 8.5%, absence of productive asset including land and the nature of poverty in urban areas, economic strengthening interventions are paramount to attain food security of the needy population. More specifically, the recently declared FDRE's Urban Productive Safety Net Program (UPSNP) document clearly stated "Focus on people living below the poverty line"

and “livelihood support aims to diversify and improve household level income in the long run” as core principles (FDRE-UPSNP, 2015).

Donors and practitioners recognize the need to extend economic and livelihood support to individuals, families, and communities affected by HIV/AIDS. Increasingly, multi-sectoral programs that can integrate health, economic strengthening, and educational and social protection services are being tested and implemented. Yet knowledge of what works, for whom and why, is still limited. There is little cross-fertilization of best practices and lessons across different sectors, including health, economic development, and social protection (Stene et al, 2009).

ES interventions have become vital avenues to be designed and implemented to combat poverty, in particular the urban poverty through employment and corresponding income generation. . However, there is no well framed and comprehensive guide on how in the country to design and operate well defined ES programs. Lots of pieces of programs have been under implementation throughout the country so far, however, lacking comprehensiveness and certain minimum standards to be followed (Beyene and Mequanint, 2010). Therefore, the study would have substantial importance on identifying changes brought on the food security and poverty status through the complementary assessment of determinant factors that influence economic strengthening program intervened for urban based needy PLHIVs. It was also aimed to skim experience and lessons through assessment of an ongoing ES program implementation.

1.3 Objective of the study

General Objective: To assess Effectiveness of Economic Strengthening Intervention towards achieving food security and poverty reduction of UHANFS project participants living in Dessie city in Amhara region in Ethiopia.

Specific objectives:

- i. To assess changes attained on the food security status of ES participant households supported by the UHANFS project.
- ii. To assess the poverty status of ES participant household members targeted under UHANFS project.
- iii. To overview major determinant factors that influence performance of microenterprises operated by the ES participants.

1.4 Significance of the study

The study performed on one of the four important pillars² of social protection policy of Ethiopia, which is *livelihood and employment schemes*. On top of this, Urban Productive Safety Net Program (UPSNP) that declared recently was expected for enforcement into action from September 2016 onwards in eleven selected big towns as pilot program; where, Dessie was among the piloted eleven. This nationwide and huge resource consuming scheme, sponsored by World Bank, was focused to combat urban poverty.

² The four pillars of the Federal Democratic Republic of Ethiopia's Social Protection Policy (2012) were: Social safety net, Livelihood and employment schemes, Social Insurance, and addressing inequalities of access to basic services.

Although the government of Ethiopia had fetched lots of experience from rural based PSNP, very limited demonstration was obtained from urban based interventions. World Food Program's (WFP) UHANFSP and USAID's Local Economy Development (LED) projects were the major commitments implemented to tackle urban poverty or food insecurity in very minimal parts of the country.

Hence, the study considered that assessing the status of food security, poverty and microenterprises would have contribution on documenting lesson and leaving its drop to the continuous stream of knowledge building on the area of ES interventions.

In addition, the researcher identified that there was no similar research done in Ethiopia on the study topic before; so that the study could be considered as a forerunner to serve as reference and also might initiate further documentation. Findings of the study on the ES intervention towards household food security attainment in urban areas would be shared to government, non-government and other civil societies that had been taking commitment to curb food security and livelihood issues Therefore, the researched become convinced on the value of the theme to work on for the fulfillment of the academic requirement.

1.5 Research questions

The study tracked to answer for the following research questions.

- ☞ What change achieved on the food security status of households' supported by ES intervention under UHANFS project in Dessie?
- ☞ What is the poverty status of individuals within households that supported by the ES intervention in Dessie?

☞ What are major determinant factors that influence performance microenterprises which ultimately determine effectiveness of the ES programs?

1.6 Scope of the study

UHANFS project, the focus of the study, has been in implementation in seven towns of Amhara; however, due to resource (mainly time and money) and accessibility limitation the researcher limited the study to one of the seven towns, namely Dessie. In addition, despite the project had had two major programs, the study entirely focused on the ES component of the project. Hence, Economic Strengthening (ES) project participants of Dessie city became universe for the study.

1.7 Limitations of the study

The research exercise relied on the response and opinions of ES participants with complement key informants information, but not included non-project participants for many reasons. Firstly, the PLHIVs are targeted into the program through targeting criteria by kebele level targeting bodies with support of PLHIV associations and volunteers; secondly, it was difficult to find and approach any PLHIVs in Dessie for the assessment due to stigma and openness issues; thirdly, trends in the study area indicated lack of willingness from PLHIV individuals to get consent for such interviews; and finally, there was no baseline information for the non-ES participant PLHIVs to compare with their previous baseline food security status.

In addition, there was no similar kind of study undertaken on the topic and in the area that made it difficult to validate the study findings with some other findings.

1.8 Organization of Research Report

This thesis report organized into five chapters to comprehensively present the research work. Up until here the first chapter has introduced the research. The second chapter comprised review of literature. Chapter three described study area and methodology applied to track the research. The fourth chapter pronounced study results backed up with discussion and interpretation on the findings. Chapter five drawn conclusion and recommendation points. In the end, particulars of reference of materials used (using Harvard system), tables, questionnaire, interview schedule, the project proposal and advisor's CV were annexed as appendices.

CHAPTER 2. LITERATURE REVIEW

This second chapter of the dissertation comprised reviews of literature on thematic areas related to the study objectives and consisted six sections. The first section discussed on concepts related to food security, poverty, economic strengthening, microenterprises and income generating activities. The second and third sections reviewed various aspects of the ES interventions and policy frame work of Ethiopia towards achievement of food security and poverty reduction. Fourth section presented measurement of food security and poverty. In the fifth section, experience and empirical findings from already executed and documented schemes on ES related interventions touched; while conceptual framework for the study indicated in the sixth section.

2.1 Concepts

2.1.1 Food Security:

Food security is defined in different ways by international organizations and researchers without much change in basic concept. According to FAO 1996, Food Security is: a *situation* in which all people at all times have physical and economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life” Similarly, *Food security* also defined as *access by all people at all times to enough food for an active and healthy life* (AIN, 1990). Here it would be understandable that food security includes at a minimum the readily availability of nutritionally adequate and safe foods, and also secure ability to acquire acceptable foods in an acceptable ways for example, without resorting to emergency food supplies, scavenging, stealing, or other coping strategies (Bickel et al, 2000).

Within the context of these definitions, food security has three primary components or pillars: ‘food availability,’ ‘food access,’ and ‘food utilization.’ Food access is determined in part by availability, while utilization is determined in part by access. Accordingly, household food security is dependent on the physical availability of food, the ability of household to access the available food and the ability of individuals (particularly those susceptible to food deficits such as women, infants and children) to secure entitlement to it. Hence, it has been broadened beyond notions of food supply to include elements of access (SEN, 1981), vulnerability (WATTS and BOHLE, 1993) and sustainability (CHAMBERS, 1989) as cited in Beyene and Muche (2010).

According to USAID (1992), Availability refers to the physical existence of food, whether from the household’s own farm or garden production or from domestic or international markets in rural contexts. It is defined by as when: “Sufficient quantities of appropriate, necessary types of food from domestic production, commercial imports, commercial aid programs, or food stocks are consistently available to individuals or within their reach.”

Food insecurity, on the reverse situation is expressed as limited or uncertain availability of nutritionally adequate and safe foods or limited or uncertain ability to acquire acceptable foods in socially acceptable way (Bickel et al, 2000). Food insecurity is divided into categories of the chronic and acute. Chronic food insecurity is commonly perceived as a result of overwhelming poverty indicated by a lack of assets. Acute food insecurity is viewed as more of a transitory phenomenon related to man-made, and unusual shocks, such as drought. While the chronically food insecure population may experience food deficits relative to need in any given year, irrespective of the impact of shocks, the acutely food insecure are assumed to require short-term

assistance to help them cope with unusual circumstances that impact temporarily on their livelihoods.

2.1. 2 Poverty

Related to small enterprises (formal and informal), Poverty is a condition in which people lack satisfactory material resources (food, shelter, clothing, housing); are unable to access basic services (health, education, water, sanitation); and are constrained in their ability to exercise rights, share power and lend their voices to the institutions and processes which affect the social, economic and political environments in which they live and work (Vandenberg, 2006).

Poverty is therefore characterized by the inability of individuals and households to acquire sufficient resources to satisfy their basic needs. Furthermore, poverty is not static. Research shows that some people may be suffering from poverty from time to time, while others are permanently poor. Therefore, poverty within the present discussion is identified to indicate when the ‘net outcome’ of the process of change experienced by an individual or household is socio-economically negative or unchanged, also sometimes referred to as ‘vulnerability’ status (ADB, 2004; UNDP, 2014).

To better understand poverty and its dynamics we need to consider its multidimensional aspects. The country’s per capita income of US\$550 is substantially lower than the regional average of US\$1,257 and the eleventh lowest worldwide. Ethiopia is ranked 173 out of 187 countries on the Human Development Index (2014) of the United Nations Development Programme (UNDP, 2014).

Urban poverty rates in Ethiopia are quite high, particularly in the large cities. The urban-rural poverty rate differential is low in comparison to other countries. 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 (FMSEDA, 2015).

2.1.3 Economic strengthening

Economic Strengthening (ES) refers to actions taken by governments, donors and implementers to improve livelihoods' of Individuals or households. Household Economic strengthening (HES) comprises a portfolio of interventions to reduce the economic vulnerability of families and empower them to provide for the essential needs of their members they care for, rather than relying on external assistance (PEPFAR working definition, 2011).

Livelihoods: refers to the capabilities, assets and activities required for a means of living. Confusion can arise as the term livelihoods is also used colloquially to refer to economic strengthening interventions, e.g., "livelihoods program (Chambers and Conway, 1992).

ES is basically an intervention intended to assist individuals to be capable to run their own or group IGA in order to generate their own income for living. It can be designed for varied poor societal groups (like PLHIVs, OVC, youths, women, and others) to escape from the clutch of poverty (LIFT, 2011). ES, in Ethiopian context, institutionally lies under the big umbrella of Micro and Small Enterprises Development (MSED) organized at different administrative hierarchies – from Federal to Kebele.

2.1.4 MSEs and IGA

According to the Ethiopia's Federal Micro and Small Enterprises Development Agency (FMSDA) Strategy bulletin that published in 2011, the working definition for Micro enterprises and Small enterprises are stated as:

Micro Enterprises: A micro enterprise in the industrial sector (manufacturing, construction and mining) is one which operates with up to five people including the owner and/or has total assets not exceeding Birr 100,000 (approx. US\$5,000). Similarly, for activities in the service sector (retailer, transport, hotel, tourism, ICT and maintenance), a micro enterprise is one which operates with up to five people including the owner and/or has total assets not exceeding Birr 50,000 (approx. US\$2,500).

Small Enterprises: A small enterprise in the industrial sector is one which operates with between 6 to 30 persons and/or has paid up capital or total assets not exceeding Birr 1.5 million. Similarly, a small service sector enterprise is one that has between 6 and 30 persons and/or has total assets or paid up capital of Birr 500,000.

Income Generating Activities (IGA): are small-scale ventures that create an income source to target beneficiaries. These are lesser in size than from MSEs (FHAPCO, 2013). The term "IGA" is not one used often in the microenterprise development sector literature. The use of the concept of IGA was generally dropped because it failed to capture the enterprise aspects and market-driven nature of business endeavors. The term was often associated with programs that put individuals or groups to work in supply or production-driven programs. LIFT³ assessment team encourages

³ LIFT: Livelihood and Food Security Technical Assistance

USAID/PEPFAR to consider adopting the term micro- and small enterprise (MSE) to professionalize and re-orient this intervention towards the market (LIFT, 2011).

The micro and small business sector is recognized as an integral component of economic development and a crucial element in the effort to lift people out of poverty. The dynamic role of MSEs in developing countries considered as engines through which the growth objectives of developing countries can be attained has long been recognized.

2.2 Economic Strengthening Interventions

Employment creation is at the center of Ethiopia's country development strategy. Agriculture Led Industrialization (ADLI) and the Growth and Transformation Plan (GTP, 2010 - 2014) focus on enhancing productivity through building human capital is a key strategy to promote employment. As part of employment creation programmes, the government has introduced micro and small enterprise (MSE) schemes to support unemployed persons to start their own businesses (FMSEDA, 2015).

Keywords associated with economic strengthening interventions, as listed by CPC, LESTF 2011 are:- Agriculture, Apprenticeship, Aquaculture, Asset transfer, Business development services, Career counseling, Cash for work, Cash transfer, Credit, Enterprise, Entrepreneurship, Extension, Farm, Fishing, Food for work, Garden, IGA, Income generating, Income generation, Income growth, Income support, Job creation, Job development, Livelihood, Livestock support, Loan, Local economic development, Market linkages, Microcredit, Microfinance, and Micro-franchising.

Categories: ES has logical linkage for its sequential interventions to meet its objectives for intervention targets as addressed by this research –people living with HIV/AIDS (PLHIVs). There are three components of ES participants that demand tailoring of the ES intervention and activities to be relieved from their food security and health deprivations. These components are categorized in a way reflecting status of food insecurity of the participating ES participants named as PROVISION, PROTECTION and PROMOTION. Despite some overlapping activities, under each of the components activities vary from each other (WFP, UHANFS, 2014).

Provision: refers to provision of food and assets in the form of short term and targeted financial and/or physical assets to destitute PLHIV and PMTCT clients. The activities in this component include provision of therapeutic and supplementary food, food vouchers and provision of matching fund on competitive and rewarding basis to enable them start and expand their economic activity.

Protection: refers to building the capacities of food insecure PLHIV and PMTCT clients to enable them reduce risks or cope with shocks. It involves assisting these households to smooth income and consumption and manage cash flows. The basic activities include provision of financial education training and access to savings and loan services through informal saving and loan groups to ensure accumulation of assets and access to risk mitigation facilities. **Promotion:** refers to expansion of household income and assets of food insecure PLHIV and PMTCT clients through linkage to long term livelihoods opportunities to enable them meet the increasing expenses of basic needs, health and education. Activities include income generating activities (IGAs), enterprise development and value chains development. This involves provision of technical support, trainings in technical and business skills and linkage with formal microfinance institutions and markets. Where ES participants are working in group, these supports will be guided by business development services (BDS) action plan (WFP, 2012).

Program Components and Approaches of ES Intervention: Different, sequential and interlinking ES intervention will be in place on the program component and approach level. The below are key components and approaches that are required by every ES interventions to be designed for execution. Of course, adaptive changes could be likely to fit with implementation contexts. As a result the aspects (program components and approaches) as indicated by LIFT Assessment (2011) and WFP (2014) should be inclusive of:- selection and targeting of vulnerable groups to the ES intervention; Build capacity in vulnerability assessments (this will incorporate various trainings provision); Provision of access to financial services; Monitoring and evaluation exercise; Knowledge sharing and management; empowering and sustainability approach (suppose by enabling volunteers from the local community and ensuring ownership of the local government); linkage with other non-governmental and private sectors; and phase-out approach to the project's intervention.

The ES Program Components and Approaches have commonness in their perspective and realization upon assisting and capacitating the ES participants with Business Development Services (BDS).

BDS are various services rendered for MSEs or IGA implementers targeted by government or other development actors to improve the performance of the enterprise, its access to markets, and its ability to compete FHAPCO (2013) and UNDP (2014).

The definition of BDS includes an array of business services (such as training, mentoring, work premise facilitation, marketing information, technology development and transfer, business linkage promotion, etc.). BDS should be integrated within the ES intervention both as strategic (medium to long term issues that improve performance), and operational (day-to-day issues). BDS are designed to serve individual businesses, as opposed to the larger business community

(Committee of Donor Agencies for Small Enterprise Development, 2001) as cited in UNDP (2014).

Outcomes of ES Intervention: Five key outcomes exist on the livelihood pathway indicating decreasing levels of vulnerability and increasing levels of livelihood and food security (LIFT, 2011). The outcomes are: Recover assets and stabilize household consumption; Build self-insurance mechanisms and protect key assets; Smooth household consumption and manage household cash flow; Smooth household income and promote asset growth; and Expand household income and consumption.

2.3 Policy Framework of Ethiopia

Although Ethiopia remains predominantly rural, urbanization is taking place, and as Ethiopia urbanizes, poverty becomes more and more existent in the urban. In 2000, 11% of Ethiopia's poor lived in cities, but this rose to 14 percent in 2011. The urban population reached 11.9 million by the last census in 2007 and was estimated to reach 16.7 million in 2014, with an average population growth rate of 3.8 percent. Urban population growth is expected to increase, with a tripling of the urban population expected by 2034 and 30 percent of the population in urban areas by 2028 (Ethiopia Urbanization Review, World Bank 2015). As more of the urban poor live in large urban centers, expanding development programs to address key challenges to urban poverty reduction is imperative (FDRE-UPSNDP, 2015).

Establishing Ethiopia's social protection framework is part and parcel of an integrated approach to the progressive realization of social and economic rights noted in article 41 of the constitution. This policy aims to *protect* citizens from economic and social deprivation through emergency

interventions and targeted cash transfers, *preventive* actions designed to avert deprivation or to mitigate the impact of adverse shocks including health and unemployment insurance, *promotive* actions that aim to enhance assets and human capital and income earning capacity, and transformative actions including legal and judicial reforms, budget analysis and policy evaluations to help the nation better manage social protection (FDRE=NSPP, 2012).

Since 1998, Federal Micro and Small Enterprises Development Agency (FMSEDA) re-established according to the Regulation of the Council of Ministers 33/198 (FMSEDA, 2015) to take the lead to create integrated and conducive environment for citizens to create MSEs or IGAs. Any programs intervention intended for assisting poor social groups through employment creation to generate income, including Economic Strengthening, Livelihood programs and IGA schemes, could exert their effort under the big umbrella of the FMSEDA coordination and support while integrated with respective sector bureaus, like health, education etc.

2.4 Measurement of Food Security and Poverty

2.4.1 Measuring Food Security

Food security data shows that many low-income households appear to be food secure, whereas a small percentage of non-poor households appear insecure. The reasons for these differences are not yet well understood, although they probably include unexpected changes in circumstances, variations in household decisions about how to handle competing demands for limited resources, and geographic patterns of relative costs and availability of food and other basic necessities, such

as housing. The food security measure provides independent, more specific information on this dimension of well-being than can be inferred from income data alone (Bickel et al, 2000).

Measuring changes observed on food security status of households using core food security module measures depth of food insecurity of households. Baseline data collection during inception time of individuals into ES interventions and then periodic similar survey execution using same people and the same tool is an acceptable and justifiable approach (WFP, 2014).

The close relationship between employment and poverty in urban areas requires a tailored approach. Social protection for the poorest in urban areas needs to combine income support with support to improve employability for those households with working-age adults. Food insecurity and hunger, as the terms are used here, are conditions resulting from financial resource constraint (Bickel et al, 2000).

Full range of food insecurity and hunger cannot be captured by any single indicator. Instead, a household's level of food insecurity or hunger must be determined by obtaining information on a variety of specific conditions, experiences, and behaviors that serve as indicators of the varying degrees of severity of the condition (Sisay and Edriss, 2012). Household surveys, are used to get this information. Established questions for many of potential indicators became the basis for the food security scale measure that then was developed from Current Population Survey (CPS) by USA Food Security Supplement census in 19995 data. Specifically, the CPS "core module" of food security questions, eighteen key questions that have potential to measure food security status followed by further food security status categorization computation (Bickel et al, 2000).

How is the household's Food Security Status determined?

As presented in well-illustrated “*Guide to Measuring Household Food Security*, by authors of Gary B., and et al, 2000, page 14 – 20, which the researcher of this study followed, food security scale is simplified into a small set of categories, “each one representing a meaningful *range of severity* on the underlying scale, and to discuss the percentage of the population in each of these categories”. Accordingly, four categories have been defined for this purpose:

Food secure: Households show no or minimal evidence of food insecurity.

Food insecure without hunger (Promotion): Food insecurity is evident in household members’ concerns about adequacy of the household food supply and in adjustments to household food management, by applying unusual coping patterns. Little or no reduction in members’ food intake is reported.

Food insecure with moderate hunger (Protection): Food intake for adults in the household has been reduced to an extent that implies that adults have repeatedly experienced the physical sensation of hunger. In most, but not all, food-insecure households with children, such reductions are not observed at this stage for children.

Food insecure with severe hunger (Provision): At this level, all households with children have reduced the children’s food intake to an extent indicating that the children have experienced hunger. For some other households with children, this already has occurred at an earlier stage of severity. Adults in households with and without children have repeatedly experienced more extensive reductions in food intake.

To summarize, after asking the core food consumption score questions to each respondent household heads: households with very low scale scores, having no, or very limited, food-insecurity or hunger experiences, categorized as *food secure*; and on the other extreme, households

with very high scale scores and reported with large number of the conditions classified as *food insecure with hunger (severe)*.

2.4.2 Measuring Poverty

Poverty in Ethiopia is a multi-dimensional problem, and owing to poverty's large scope and multiplicity of actors, there is no single guaranteed approach to its eradication. Various indicators and mechanisms could be set by different organizations or scholars according to their area focuses. (Amha, 2001).

Wealth and income are available to support consumption, today and in the future (through the saving that income generates. Income, consumption and wealth are three dimensions of the broader concept of economic well-being. Other things being equal, a person with a higher level of consumption is regarded as having a higher level of economic well-being than someone with a lower level of consumption. It should be noted that consumption needs can be met through the spending of, through the running down of wealth, and through borrowing (WFP, 2014).

For the purpose of evaluating effectiveness of ES intervention, a mechanism has been put in place to collect and analyze the intervention's progress towards food security and poverty reduction attainment at performance indicators. Performance data were collected on key performance indicators about household consumption, expenditure, dietary diversion, and food security status. Consumption indicator was an important one for the reason that enabled to depict the changes brought in the living standard of the respective ES participants after their engagement in ES activities (WFP, 2014).

Poverty was defined as ‘the inability to attain a minimal standard of living; and measured in terms of income to meet necessary basic needs and services. Here, the internationally *accepted poverty line* was administered as an indicator of poverty measurement as to the monetary amount needed to purchase a basket of estimated minimum calorie intake and the social services needed to live a healthy life (African Development Bank, 2004). The poverty line enabled to determine individual’s, whom were members of households that participated in the Economic Strengthening program, status against extreme poverty level. Lesser income earning per day per person from the cutoff point, which set at 1.90 USD by World Bank in October 2015, considered as being poor or living under extreme poverty.

Pertaining to exchange rate of local currencies of different countries to the international market at USD, the World Bank also devised working mechanism on the above year by dictating Purchasing-Power Parity (PPP).

PPP conversion factor is the number of units of a country's currency required to buy the same amount of goods and services in the domestic market as a U.S. dollar would buy in the United States. The ratio of PPP conversion factor to market exchange rate is the result obtained by dividing the PPP conversion factor by the market exchange rate. The ratio, also referred to as the national price level, makes it possible to compare the cost of the bundle of goods that make up gross domestic product (GDP) across countries. It tells how many dollars are needed to buy a dollar's worth of goods in the country as compared to the United States. PPP conversion factors are based on the 2011 ICP round (World Bank, 2015).

Household expenditure is defined as all expenses incurred by the household or any of its members in the previous 30 days prior to the assessment day on items. Such expenses need be exhaustively

listed and provided to the interviewee, including food, beverages, clothing and foot wear, housing utility expenses, transport, communication, entertainment and others. However, by their nature, expenses that would be effected on periodic basis or not in monthly basis should be gathered separately as expenditures in the last six months from the day of assessment. Such expenses may be related to education, health, ceremonials, funeral, etc (WFP, 2014).

2.5 Empirical findings and Experience

Micro and Small Enterprises (MSEs) Development have been supported by Technical and Vocational Education Training (TVET) in Ethiopia. In the past five years about 1.5 million new jobs were created by MSEs. The MSEs Sector is the second largest employment-generating sector following agriculture sector. They account for a substantial share of the total employment and gross domestic product (GDP) contribute significantly to the improvement of poverty and income creation (FMSEDA, 2015).

Research carried out by Biggs (2002); cited in Gebre-Egziabher and Ayenew (2010) strongly examine the role played by MSEs to minimize the incidence of high level poverty and attaining food security in most developing economies through employment creation, income generation and multiplier effects on other sectors of the economy and found it tangible.

Though a direct correlation between risk for HIV/AIDS and the economic strengthening programs cannot be established, several components of wellbeing among HIV/AIDS affected households (economic status, nutrition, self-reported health status, asset, and school material ownership) are positively affected by economic strengthening interventions. However, more research is needed to help inform program design and to understand the nuances of intra-household resource allocation, gender dynamics and the long term effects of economic strengthening programs (Stene et al, 2009).

ES had been intervened for various population groups in different countries to address economic and other needs. ES also been in implementation with an integrated programs as well. Some experiences are reviewed by the research as elucidated below:

. **ES for PLHIVs:** ES initiatives are now considered to be an important strategy in enabling HIV/AIDS-affected households to cope with the effects of the epidemic and preserve livelihoods that sustain basic needs such as food, water, shelter, health, education, and social protection. Country programs have begun to add economic strengthening components to HIV/AIDS support programs (Chambers and Conway in Allen 2005) as cited in (Stene et al, 2009). In high HIV/AIDS prevalent countries, targeted by the President's Emergency Program for AIDS Relief (PEPFAR), ES programs were intervened and showed intended positive impact (LIFT, 2011) and (Stene et al, 2009).

. **ES for OVCs:** LIFT (2011) found that ES participants were PLHIV, OVC, OVC caregivers or MARPS⁴, depending on the responsible partner's target group. Partners reported that, in isolated cases, there were older OVC in saving and Loan Groups (VSLAs), especially if they were heads of households and had assisted to operate their own IGAs. It should be noted that in the vocational training activities, OVC students and/or graduates are sometimes, if not often, organized into associations in order to benefit from government assistance (such as land or rent-free workshops), and the associations are often trained to save as a group and strengthen their income generation (LIFT, 2011).

. **ES for adolescent girls:** About half of the child-targeted by ES programs that have been rigorously evaluated are pilot programs aiming to promote the rights of adolescent girls. In these

⁴ MARP: Most At Risk Population

approaches and corresponding research, the economic intervention was one element among many in the empowerment of girls. They focus on a spectrum of outcomes including strengthening girls' social networks; better knowledge, attitudes and practices in reproductive health; exposure to positive role models through mentorships; improving personal safety through community risk mapping; and literacy/numeracy, among others. Establishing safe spaces as multi-purpose platforms for economic strengthening and other mutually-reinforcing interventions is a primary activity in these programs (CPC - LESTF, 2011).

2.6 Conceptual framework of the study

Economic strengthening strategy refers to logical combination and/or sequences of interventions that Urban HIV and AIDS Nutrition and Food Security project, which the study launched on, implemented to achieve its ES objectives. To this end, the overall objective of the ES strategy is to guide project implementation towards achievement of its objectives in a more effective way as indicated on WFP's not published ES document, 2012.

ES participants who are focal points for the ES project to come to existence, institutions concerned in operating and having stake on the board, linkages across the institutions, or partners and stakeholders, and major activities performed by the intervention were core ingredients. The conceptual framework selected for the study was comprehensive enough to show the great picture and logical framework across the mentioned parties and schemes.

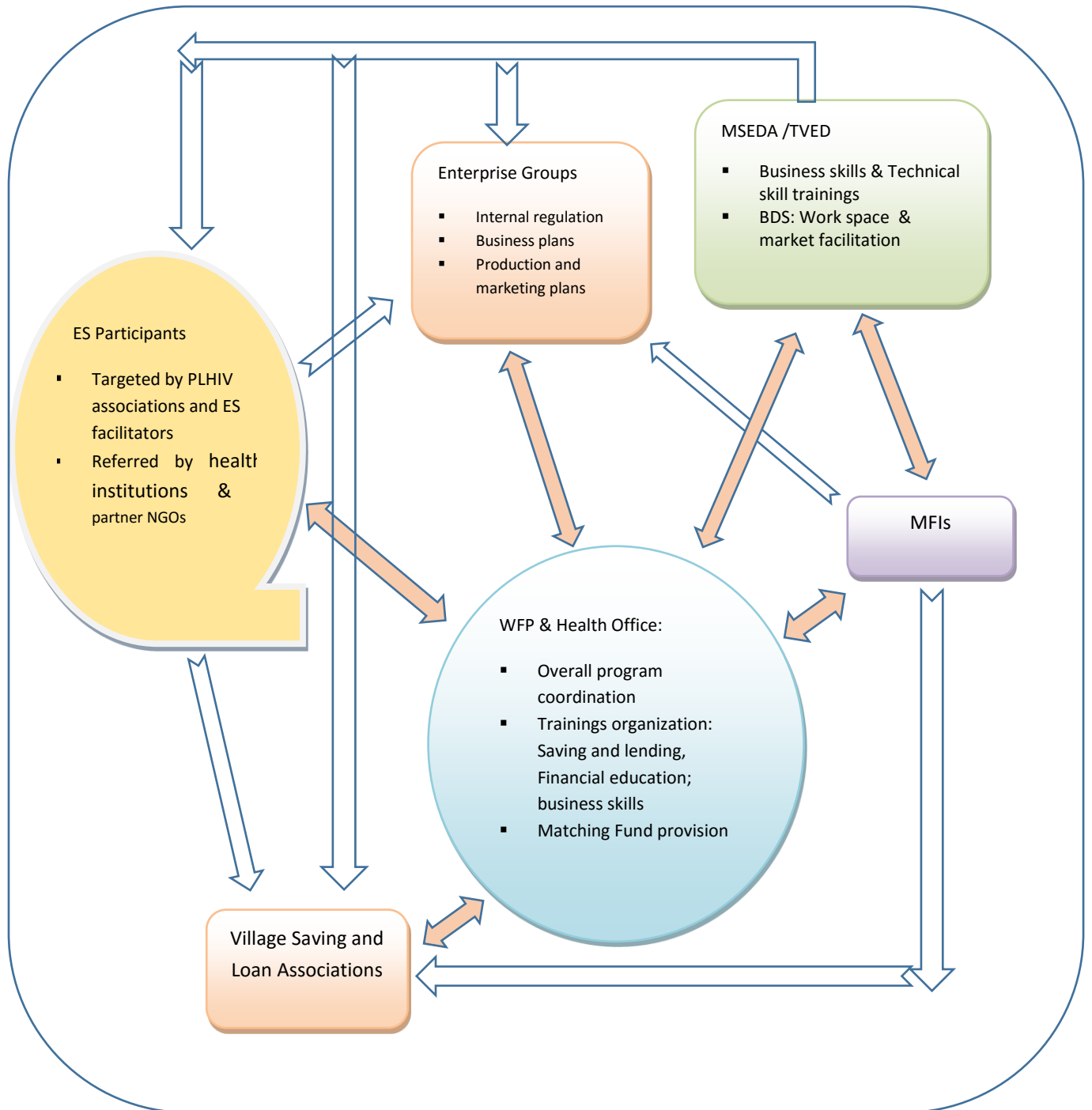
Figure 2: Conceptual framework of the study

HOUSEHOLD STRATEGIES		ES OBJECTIVES		ES INTERVENTIONS	
<p style="text-align: center;"> </p> <p style="text-align: center;"> Less Vulnerable ↑ Income and asset growth ↑ Risk reduction ↔ Loss management ↓ Distress ↓ More Vulnerable </p>	Higher economic risk/return activities	<p style="text-align: center;">Promotion</p> <p style="text-align: center;">↑</p>	Expand household income and consumption	Workforce development; business development services (BDS); Micro, small and medium enterprise development	Formal credit and savings
	Low economic risk/return activities; diversifying income sources; building productive assets		Smooth income and promote asset growth	Facilitate business and social networks; BDS; micro enterprise development	
	Asset depletion; wage and migratory labor; reduce spending and consumption; borrowing; drawing on social assets	<p style="text-align: center;">Protection</p> <p style="text-align: center;">↑</p>	Smooth income and manage cash flow	Strengthen social networks; financial literacy; cost reduction	Informal credit and savings
	Asset depletion; reduce spending and consumption; borrowing; drawing on social assets		Build self-insurance methods and protect assets	Access to safety nets; financial literacy; cost reduction	
	Depending on charity; breaking up household; migrating under stress; reducing food intake	<p style="text-align: center;">Provisioning</p> <p style="text-align: center;">↑</p>	Recover assets and stabilize consumption	Access to social services; cost reduction	Asset transfers

Source: LIFT Assessment, USAID/PEPFAR, 2011

In implementing the above conceptual framework, various institutions had involvement for its execution. Hence, the below mapping indicated those most concerned institutions under the context of the current Ethiopia’s organizational or structural arrangement for micro and small enterprises (MSEs) development.

Figure 3: Mapping of institutional linkage and responsibilities



Source: Adapted from WFP, 2014.

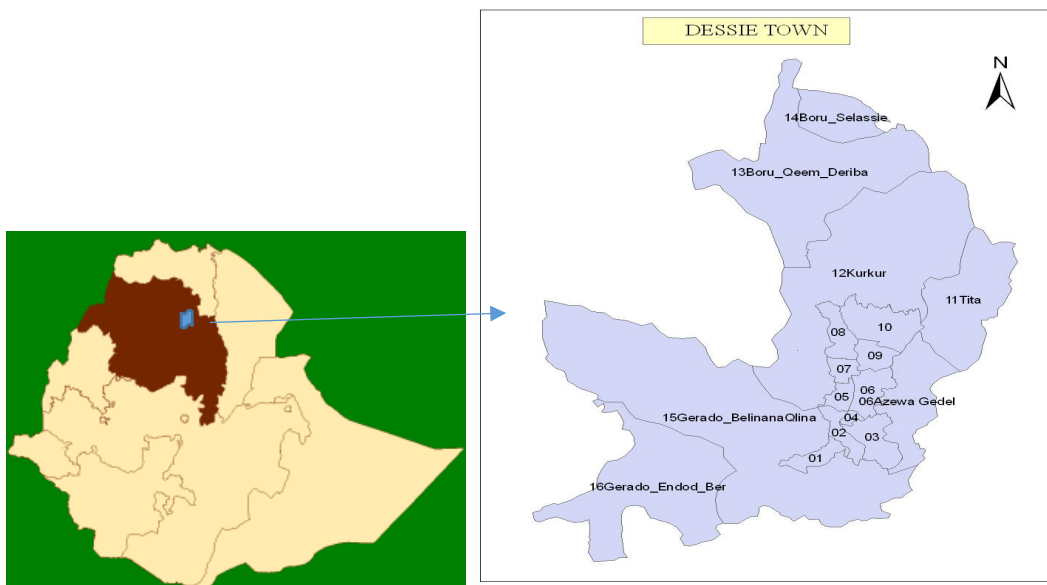
CHAPTER 3: RESEARCH METHODOLOGY

This chapter is designated to elucidate study area description, sample size determination, design of sampling, tools applied and methods for data collection, variables used for the study and their measurement, and data analysis method.

3.1 Description of the study area

City of Dessie found in north-central Ethiopia within Amhara region in South Wollo zone that pinpointed at a latitude of $11^{\circ} 8' N$ and longitude of $39^{\circ} 38' E$. The town is located 400 km. distance from Addis Ababa to the north direction along the road to Mekele. The town is surrounded by a chain of mountains, which is claimed to be the main reason affecting its expansion and development. The town placed at an altitude between 2,400 and 3,200 meters above sea level (masl), while having an average 2,600 altitude; and also received 1100 milli-meters average annual rainfall. Dessie established in 1893 by King Michael (DFEDD, 2015).

Figure 4: Map of Ethiopia and Desse City



Based on the 2007 national census conducted by the Central Statistical Agency (CSA) of Ethiopia, Dessie city has a total population of 151,174, of whom 72,932 are men and 78,242 (51.76%) women. Out of this, 120,095 (79.44%) are urban inhabitants living in the town and the remaining part of the population is living at the rural kebeles of Dessie. Population projection of 2015 indicated that the total population showed increment to 203,095 where women comprise 116,093 (51.16%); whereas, 179,557 (88.41%) expected as being urban population (DFEDD, 2015).

According to Ethiopian CSA's Urban Population Projection Value of 2016, Dessie become 8th largest city in Ethiopia and the 3rd biggest one from Amhara region next to Gondar and Bahir Dar out of 169 urban centers. The town is labeled as metro-politan city for being large in terms of population size and socio-economic situation. Dessie is the capital city of South Wollo Administrative Zone and for administration purpose, the city is classified into ten urban sub-cities or kebeles and six rural kebeles. The main economic sectors for the city's occupants, mainly, are trade (includes both service and production delivery), employment (in government, private and other organizations), and urban agriculture (AHB, 2008).

The Economic strengthening (ES) program launched in Amhara region in seven towns within six administrative zones⁵ since June 2012. The towns were selected for the UHANFS project operation for various reasons, mainly for their higher HIV/AIDS prevalence, and food insecurity and poor poverty status (WFP, 2012). Dessie was the universe of this study that purposefully selected by the researcher.

⁵ UHANFS project towns and their respective zones are: Gondar (North Gondar), Bahir Dar (West Gojam), Debre Markos (East Gojam), Debre Berhan (North Shoa), Woldia (North Wollo) and Dessie and Kombolcha (South Wollo).

3.2 Research design and Sampling

3.2.1 Study population selection

The initial population of the study were 797 active ES participants at the UHANFS project in Dessie town, excluding defaulters from the registered 850 - for various reasons inclusive of leaving the town, illness and death. The targeting of PLHIVs into the ES intervention of the UHANFS project conducted in annual basis in the month of August. So far, four batches of ES participants were targeted and registered for ES intervention involvement from August of 2012, 2013, 2014 and 2015 onwards. The targeted food insecure PLHIVs were expected to be food secured and graduated or terminated from the ES intervention after receiving intended support for three consecutive years through satisfactory project participation. The first and second batches of participants that had been registered into the program in 2012 and 2013 received the full package of the intended ES intervention by August 2015 and 2016 (WFP, 2016). Hence, these two batches of Dessie town ES program participants become the working study population.

Accordingly, the currently active 340 ES participants from the first and second ES batches become the actual study population to undergo the sample size determination. The number of women population were 137 and 134 from the first and second ES batches, respectively (WFP, 2016).

3.2.2 Sample size determination

Regarding to sample size determination, the widely known and proficient Yamana's (1967) formula were applied. The formula was described as:

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

Where: n = required sample size.
 N = number of people in the study population, which was 340.
 e = allowable error or margin of error, which would be computed from confidence interval (C.I.) or confidence level as $1 - \text{C.I.}$

Typical confidence levels are 80%, 90%, and 95%, although any confidence level can be used for different research purposes (BRL, 2013). Accordingly, the study was administered at 90% (or 0.90) as confidence interval. That implies, “e” became $1.00 - 0.90 = 0.10$.

Therefore, the sample size calculation followed was:

$$\begin{aligned} n &= 340 / [1 + 340 (0.10)^2] \\ &= 340 / 4.40 \\ &= \underline{\underline{77}} \end{aligned}$$

The number of samples researched became 77, which implied 22.7% of the targeted population assessed by the study.

Many researchers commonly add 10% to their sample size to compensate for persons that the researcher might be unable to find for the interviewing days (Singh and Masuku, 2014). Accordingly, the research then selected additional 8 respondents, which were 10% of the 77, in order to make reserve for data collectors in case of facing difficulty of getting the sampled interviewee(s) by the time.

3.2.3 Sampling technique

In order to carry-out the assessment, *systematic random sampling* method was administered for the reason that list of all the target population were available within the ten sub-cities of Dessie.

This systematic sampling method was preferred over simple random sampling for its capability to provide a more even spread of the sample over the population (JHPN, 2014; IGNOU, 2005).

3.2.4 Sampling procedure

Certain procedure had been performed in order to identify the list of the names of sample ES participants, 77, from the population, 340. Firstly, list of the currently active ES participants received from Dessie town Health Department. (*Here just to note, letter of acknowledgement and cooperation was received from the Health Department in advance to carry out the study and interview the project's PLHIV participants.*) Then the name provided with serial numbers starting from one to 340 by following their residing kebeles/sub-cities number. Interval was calculated by dividing 340 for 85, considering the reserve. Following this, a number was picked randomly from one to four, where one was drawn. Finally, starting from 1, every 5th name in the list become sample respondents for the actual interview at house to house basis.

Table 1: Distribution of sample respondents by sub-city/kebele

Kebele No.	Name of Kebele /Sub-city/	No. of Sampling Frame			No. of Sampled ESPs		
		Year 1	Year 2	Total	Year 1	Year 2	Total
01	Segno Gebeya	0	18	18	0	4	4
02	Salayish	21	18	39	5	4	9
03	Arada	18	23	41	4	5	9
04	Piassa	14	0	14	3	0	3
05	Ager Gizat	25	23	48	6	5	11
06	Hottie	18	22	40	4	5	9
07	Dawdo	18	23	41	4	5	9
08	Menafesha	22	22	44	5	5	10
09	Robit	13	25	38	3	6	9
010	Buanbua Wuha	17	0	17	4	0	4
Total		166	174	340	38	39	77

Source: Own Survey, 2016

3.3 Type and sources of data

Qualitative and quantitative data collected for analysis in a way to complement each other. In addition, the study also utilized primary and secondary data, which was still quantitative and qualitative in nature.

3.4 Data collection

3.4.1 Data collection instruments

Data collection for the research were gathered from secondary and primary sources. Data collection instruments that applied to capture required data for the dissertation were described as followed.

Questionnaire: Qualitative and quantitative data gathered from 77 sample study respondents by administering structured and semi-structured interview questionnaire.

Focus Group Discussion: FGD was conducted with ES Facilitators that were serving as community volunteer. They attended additional trainings to be focal points to assist and coordinate five to eight Village Saving and Loan Groups (VSLA) and individual ES participants' business performance that are members of respective VLAs. Hence, the researcher considered the ES Facilitators as to get comprehensive and detailed qualitative information about the ES intervention implementation and assessed their views. The qualitative data gathered from the FGD reinforced analysis and interpretation of the data that gathered from the study samples.

Key informant interview schedule: This tool was used to acquire qualitative information through structured and open interview schedule with relevant experts and officials of Dessie town's

government offices. The interviews were done with Health department, TVED⁶, Trade and Industry Department, and sample kebele administration centers. The interviews conducted basically focused on government's policies, responsibilities, and institutional linkage pertaining to ES schemes and ES implementing actors' follow-up and support.

Observation checklist: Important and remarkable contexts and observations obtained during completing individual questionnaires with sampled respondents were recorded by the data collectors. It contributed for the enrichment of study findings analysis and write-up and also to produce success case stories.

Secondary /documentary/ sources: Secondary data was gathered from different sources such as unpublished documents [from UN-WFP's UHANFS project documents and reports, and from Dessie city administration Health and Finance and Economy departments], statistical bulletins, journals, books, E-books and internet web sites. The literature review performed was vital and stepping stone to build the theoretical aspects and fetching tools and experience on how to proceed with the study designing and execution.

3.4.2 Data collection procedure

Certain procedures were deployed to realize the data collection exercises. Initially, literatures were reviewed from various sources. After getting approval from Dessie town Health Department, the UHANFS project officer and ES Facilitators contacted for their coordination to trace the randomly

⁶ TVED is Technical and Vocational and Enterprises Development Department.

drawn respondent ES participants at their living houses. For FGDs, the ES Facilitators were discussed; while interview checklists were completed by KIs.

3.4.3 Enumerators training and mobilization

Three B.SC and B.A holder youths that have data collection experience on the area of food security were sought and provided with one day training by the researcher. After then, test interview was conducted to test the questionnaire in order to be clear with and also enrich the questions to reinforce sound data collection. The questionnaire was translated into the local language, Amharic, to keep fluency and rapport during the actual data gathering.

3.5 Data analysis

3.5.1 Methods of data analysis:

The collected data using questionnaire decoded into a software application of Statistical Package for Social Science (SPSS) of version 20 for carrying out detailed summaries to make it ready for results, discussion, analysis and interpretation.

To study specific objective one, to assess changes attained on the food security status of ES participant households supported by the UHANFS project: ‘food security status’ was dependent variable and measured by Food Consumption Score (FCS) method. The FCS enabled to categorize weighed households into four food security status groups namely: food insecure with sever hunger, food insecure with moderate hunger, food insecure without hunger and food secured (Bickel et al, 2000). In order to look for the changes attained, the assessed and computed food security status by the research, then, compared with baseline food security status assessment results that was carried out by the UHANFSP upon entry of the ES participants into the program by applying similar food consumption score. Independent variables that had influence on the dependent variable, for

example demographic factors, income and status of microenterprise performance were analyzed by using descriptive statistics for example, mean, frequency, percentage, tables and graph.

To study objective two: *assess the poverty status of ES participant household members that targeted under UHANFS project*, income amount per person per day that assessed by the study weighted against poverty line. Poverty line developed by World Bank in October 2015 that sets 1.90 USD per person per day at 2014 purchasing-power parity (PPP) was applied to assess prevalence of extreme poverty through measuring income. The poverty line helped to set the demarcation in order to depict respective individuals' poverty status as either below or above the extreme poverty. The dependent variable, poverty stats, was affected by various independent variables. Demographic factors, income and microenterprise performance were considered as major independent variables to influence both poverty and food security status.

Pertaining to exchange rate of local currencies of different countries to the international market at USD, the World Bank also devised working mechanism on the above year by dictating Purchasing-Power Parity (PPP). PPP conversion factor is the number of units of a country's currency required to buy the same amount of goods and services in the domestic market as a U.S. dollar would buy in the United States. The ratio of PPP conversion factor to market exchange rate is the result obtained by dividing the PPP conversion factor by the market exchange rate. The ratio, also referred to as the national price level, makes it possible to compare the cost of the bundle of goods that make up gross domestic product (GDP) across countries. It tells how many dollars are needed to buy a dollar's worth of goods in the country as compared to the United States. PPP conversion factors are based on the 2011 ICP round (World Bank, 2015).

In order to obtain income [I] per person per day for each member of the ES participating household, the Study take into account of the following expenditure and income sources:- monthly household expenditures [ME] and expenditures paid out in six-month basis [SE], any form of savings [S] (in bank, VSLA, house or others), outstanding loans (provided [LP] or received [LR]), remittance that household received as gifts/remittance [R] in the past one year.

For income [I] computation, the study multiplied monthly expenditures [ME] by 12 (considering that amount as average); multiply six-monthly expenditure [SE] amount by two; then, summed up amounts of: those effected in the last one year from the date of assessment, like savings, expenditure on asset to expand business, and outstanding loan provided to others; and deducting, similarly those incurred in the last one year, outstanding loan received and any form of remittance the household gained. The aggregate, now, expected to provide the proxy income amount for that respective household. Finally, this amount then divided to 365 and then to the number of members of that household [N] to reach at the proxy amount of income per person per day, which later used to determine the status against extreme poverty line.

That is,
$$I = [(12 * ME) + (2 * SE) + S + LP - LR - R] / 365 / N$$

To study objective three: to *overview major determinant factors that influence performance of microenterprises' operated by the ES participants*, quantitative data that assessed opinions and attitudes from sampled respondents, were summarized and analyzed using descriptive statistics method mainly by frequency, percentage, mean, tables and graphical representations.

3.5.2 Variables and Measurements

Working definitions of variables used in the study and their measurements are elucidated as followed.

Dependent variables:-

Food Security is a *situation* in which all people at all times have physical and economic access to sufficient, safe and nutritious food which meets their dietary needs for an active and healthy life. It is measured by Food Consumption Score by assessing and computing respondents reply for the standard FCS questions. Afterwards, each respondent categorized into one of four food security status categories, namely: food insecure with sever hunger, food insecure with moderate hunger, food insecure without hunger, and food secured.

Both of WFP's UHANFS Project and this study followed Current Population Supplement's (CPS) "core module" of food security questions that published in "*Guide to Measuring Household Food Security*" by Bickel et al (2000). Eighteen questions are included in the core module questionnaire part and so attached under appendices section of this study paper. Accordingly, based on the responses for the eighteen questions, later on computed to scaling. The first two core food consumption score questions, in particular, had strong indication upon the scaling of respective ES participants' responses upon the categorization.

Poverty is defined as the inability to attain a minimal standard of living. It is measured in terms of income to meet necessary basic needs and services. Here, the internationally *accepted poverty line* was administered as an indicator of poverty measurement as to the monetary amount needed

to purchase a basket of estimated minimum calorie intake and the social services needed to live a healthy life. (ADB, 2004).

Performance status of microenterprises:

Microenterprise for this specific study concern, it is considered at an income generating activity (IGA) level. It is defined as small-scale ventures that create an income source to target beneficiaries, PLHIVs. The IGAs are lesser in size than from micro and small enterprises (MSEs), (FHAPCO, 2013).

Performance refers to implementation or efficiency, and measures actual against expected results; it is a proxy measure of the quality of management. Martin (2010) explained performance in business can be defined in output terms such as quantified objectives or profitability. Performance has been the subject of extensive and increasing empirical and conceptual investigation in the small business literature (Bidzakin, 2009). According to Abernethy (1989), performance is represented by its measured levels of achievement in terms of one, or several, parameters that are chosen as indicators of the system's goals. Performance assessment enables verification of the degree to which targets and objectives are being realized as cited in Esrael (2013). Indicators for measurement of performance of microenterprises were changes on the level of working capital, net income/profit, asset created and market demand as indicated in LIFT (2011) and FHAPCO (2013).

To study the change on status of microenterprises' performance of the ES participants as compared to their start-up or in the period of joining the program, assessment was conducted on the current performance of microenterprises or IGAs of the sampled ES participants. Each study sample's current businesses performance status were assessed by inquiring ordinal scale of 'Highly

Improved’, ‘Slightly Improved’, ‘No Change’, ‘Declined’, ‘Stopped’ as retrospective analysis by recalling back with their own microenterprise status during the entry period into the ES program.

Independent variables:

Independent variables that were expected to have influence on the dependent variables are described by the study. Different scholars and few assessments on microenterprises performance and related topics for example food security and poverty had dealt on determinant factors as to their objectives.

Variables that have determinacy on status of microenterprise, food security, poverty and empowerment as studied by FMSEDA (2013), Sisay and Edriss (2012), LIFT (2011), Chane (2010) and Muluneh (2008) were: Family characteristics (for example: Age of household head, Marital status of household head, Educational Level of Household Head, Household Size (number), Dependency ratio), Health (for being PLHIV), Household income, ownership of housing premise (for living and business), training receipt, access to market, participation on group saving and loan schemes, feasible microenterprise selection, coherent microenterprise group formation, Aid or Financial assistance, Access to credit, Years of experience in IGA, Location of the microenterprise, failure to convert profit back to investment, bankruptcy, Remittance income, Monitoring and Supervision support availability, Institutions and Coordination, and policy frame work.

The research considered that the ES participants on which the assessment conducted with are primarily living on income they were earning from their own microenterprises. This implied, any factor that would influence their performance of microenterprise undoubtedly would impact on their status of food security and poverty. Hence, among the many listed factors, the research by

considering situations of the ES intervention, purposefully overviewed the following twelve independent variables and described their corresponding measurement.

Household head characteristics: One of the multi-faceted parameter that influence performance of microenterprises is personal characteristic of the entrepreneur or owners characteristics. Empirical researches have tended to explain the relationship between the entrepreneurs' characteristics and firm survival and growth. They include a range of characteristics including gender, age, education, marriage, family size, dependency ratio and lots of psychological and personal factors (Fadahunsi, 2012; as cited in Woldehanna, (2014).

1. Age: It was measured in number of years as continuous variable. Age can generate or erode confidence to challenge to invest. However, there are mixed results as to the direction of influence (Muluneh, 2008). Conducted studies revealed that younger entrepreneurs are likely to be more willing to assume risks and grow their business compared to older individuals Davidsson 1991; as cited in Woldehanna, 2014). Increment of age is expected to have negative relationship with performance of microenterprises.

2. Gender: Varied studies showed contradicting findings for determinacy of gender towards successful microenterprise operating. Results of Women owned firms perform less in terms of different performance measures; while on other studies, there is hardly any difference between men and women owned firms (Chane, 2010). This research diagnosed its effect.

3. Marriage: it was a dummy variable. It is in marriage where adulthood is recognized and the power to take responsibilities over one's life acknowledged. Yet, it is in the same marriage where men take the dominant positions to the detriment of women's lives (Lakwo, 2007; as cited in Muluneh, 2008). Married women may face conflicting gender roles such as keeping and caring

kids at home. Hence, the research considered marriage to negatively influence microenterprise performance (Chane, 2010).

4. Level of Education: it was measured in the number of years of formal education. Studies showed that formal education has a positive impact on business performance (Bates, 1995; Cressy, 1996; as cited in Woldehanna, 2014).

5. Family or household size: Household is the smallest coherent economic unit. It is defined here as a group of people, each with different abilities and needs, who contribute to a common economy and share the food and other income from this same pot (SCUK, 2002). It is measured in terms of number to express the total number of the household. Effect of size of family size on microenterprise performance could be either positive or negative. The larger the number of family members, the more the labor force available. Hence, the better the possibility for the woman to participate in economic activities. As a result, family size was hypothesized to have positive influence on women empowerment cited in Muluneh (2008).

6. Dependency Ratio: It is measured in terms of number. It is described as the ratio of the number of members of a household whose age is below 14 and above 64 to the total family size (CSA, 2007). In a study on women's empowerment, the larger the dependency ratio in the household, the lesser is the possibility for the woman to engage in income generating activities as she will be occupied by household duties (Birgit, 2001; as cited in Muluneh, 2008). Therefore, the increase in the number of dependent members may negatively influence performance of microenterprises.

7. Income of households: Income as proxy indicator computed from ES participant households' varied expenditures and savings that they effected in the last one year from the

assessment date. Determining the poverty line is usually done by finding the total cost of all the essential resources that an average human adult consumes in one year (World Bank, 2015).

Despite the above indicated monthly and six month basis expenses, in Literature Review above, this researcher searched additional expenditure items and other income sources that could influence the household expenditure; which latter taken as proxy for income of respective households.

8. Training: It is the act and process by which the ES participants were provided with to acquire required knowledge and skill on various topics enable them participate on the varied components and stages of ES intervention. Training expected to provide business and technical thematic areas; and also devised to capacitate the entrepreneur's feasible enterprise selection knowledge (WFP, 2012). Training was studied by ordinal type assessment having five scales ranging from "very high" to "very low", and "strongly agree" to "strongly disagree" for to measure type and relevance or practicability of the training organized. The opinions of the study respondents then analyzed using frequency, mean and percent.

9. Years of experience in microenterprise/IGA running: It was measured in the number of years the ES participant had been running their microenterprises. The more number of years in business is expected to fetch gainful of experience and information positively to boost performance of microenterprise. However, it is influenced by other determinants whatever the years of experience attained (FMSEDA, 2014).

10. Participation in saving and Loan groups: Participation in saving and loan schemes, (Village Saving and Loan Association (VSLA) for the case of the study participants), were an activity designed and executed by the ES intervention to provide access financial services. ES participants were organized into saving and lending groups and then produced their own bylaws

to administer overall savings, credit and small insurance administration platform. It consists, among others, the amount and frequency of saving, and loan taking and repayment procedures. After successful VSLA participation graduation, interesting and capable individuals intended to link to formal microfinance institutions (WFP, 2012). Since the study participants participate for nearly similar number of years in the VSLA, the study assessed opinions on determinance of VSLA participation through ordinal scale as “strongly agree”, “agree”, “not sure”, “disagree”, and “strongly disagree”.

11. Access to credit: Access is described as opportunity in practice to use a resource or store, or to obtain information, material, technology, food or income. Credit serves as a means to boost production and expand income generating activities (Chambers and Conway, 1992). Thus, a household which has access to credit does initiate investment in farm and non-farm activities and achieve food security. That inter expected that a household which has access to credit is more likely to be food secure (Beyene and Muche, 2010). Nominal scale was used to assess challenges persisted for accessing credit service from MFI.

12. Financial support: It is money that provided either as business start-up or expansion capital to intervention participants (WFP, 2014). It’s determinance for the ES project participants assessed through ordinal measures.

13. Demand to market: It is basically about selling products and services. Market demand is one of the driving forces to make ES participants or entrepreneurs to produce more (FMSEDA, 2015). It is measured by dummy (yes/No) and ordinal (mostly, sometimes and mot at all) types of scales.

14. Ownership of Premises, living and working: Ownership of living house and working and market places are key determinants of microenterprise performance. Lack of ownership leads

to rent payment mostly higher and incremental, and other related challenges (FMSEDA, 2015; WFP, 2016). It is measured by dummy (yes/No) and ordinal (“strongly agree”, “agree”, “not sure”, “disagree”, and “strongly disagree”) scales.

15. Level of monitoring/coaching support: It is about field visit and supervision to provide on the spot technical back up to project implementer partners and project participants (WFP, 2014). It is measured by ordinal nature type of inquiry as ‘Very important’, ‘Important’, and ‘Not sure’, ‘Less important’ and ‘Not important at all’.

16. Policy framework, Institutions and Coordination: It is assessed through key informant interviews with concerned Dessie City Technical Vocational and Enterprises Development Department (TVED) and focus group discussion (FGD) with ES program community volunteers.

CHAPTER 4: RESULTS AND DISCUSSION

The objective of this chapter is to present the results and discussion of the study within two sections. Section 4.1 entailed detail descriptions of the assessment results under its sub-sections. Section 4.2 presented concise discussion, based on the results, focused on specific objectives of the study.

4.1 Results of the study

4.1.1 Demographic characteristics of Households

From total of 77 sample respondents 59 (76.6%) were female; while the remaining 18 (23.40%) were male. Upon disaggregating the sex composition by entry year into the Economic Strengthening (ES) program, higher number of female (84.2%) were studied than the male. When comparing the sampled figure with the actual number of ES participants in the study town, Dessie, female constituted about 80% (271 from 340 actual ES participants by the time of the assessment), (WFP, 2016). Hence the study indicated that the sample showed good representation of its total population in terms of gender; and also the project had reached more women, whom are the most disadvantage groups in particular in developing countries like Ethiopia (Gobeze, 2006).

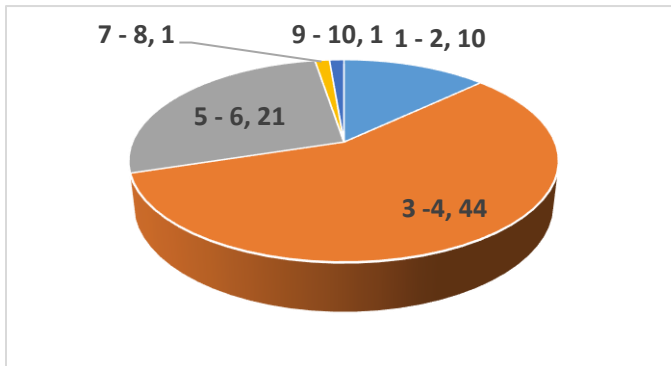
A table that presented the result of demographic characteristics of the study is attached as

Appendix – 3.

Age wise, 46 (59.70%) of the respondents were below 40 years old, which was in high working period. The other 32.50% and 7.80% are in the range of 40 to 45 and above 55 years of age, respectively. The lowest age of the ES participants' was 21 and the highest at 65.

It was only 9 (11.69%) of the total sampled ES participants currently found in marriage. The remaining 88.89% were living 'single' as unmarried (31.17%), divorced (22.08%) and widowed (35.06%). The highest proportion for widowed female implied the extent of death of their husbands that most likely linked to HIV/AIDS related health problems, among other cases in consideration, as verified through FGDs done with ES facilitators as volunteers.

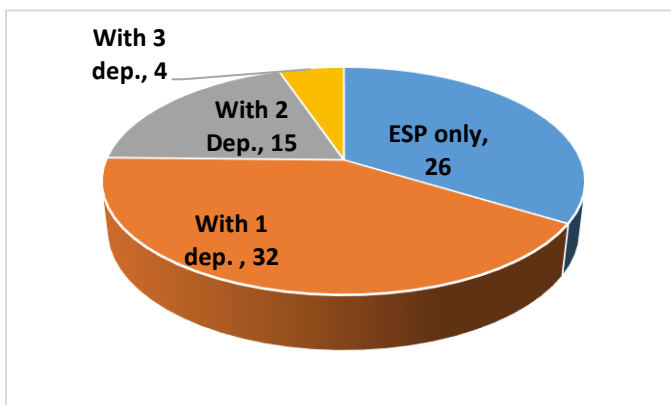
Figure 5: Family size of sampled respondents



The study investigated that majority (44, (57.14%) of the sampled respondents have three to four family members. With the exception of two ES participant household that have above seven and eight members, the other 40.26% of the households had one to two and five to six members.

Source: Own survey, 2016

Figure 6: Dependent members of households, below 14 and above 64



The study indicated that the households had zero to three dependent members, below 14 and above 64, under their responsibility. There is a trend between the size of households and number of their dependent members.

Source: Own survey, 2016

Education level wise, nearly one-third of the study participants were illiterate and similarly the other one-third in the range of Grade 5 -8; while the remaining respondent ES participants found at read and write, and grade 1-4 and 9-12 educational levels. The study indicated that the ES intervention showed good effort to address the illiterate section of the intervention town, Dessie. It would be logical to expect such illiterate and at low educational levels were living in poverty and slum condition in urban society (Gobeze, 2006).

4.1.2 Food Security Status assessment

In order to obtain food security status of the study samples, food consumption score (FCS) was administered. Each respondent households were asked the eighteen FCS questions; and then those with children responded for the whole eighteen, while households without children replied for ten of the questions as deemed. Following, the researcher applied the prescribed Food Security Scale (FSS) values to obtain the required current food security status at four categories for the study households (Bickel et al. 2000). The below table 2 indicated the assessment result of the study.

Table 2: Food Security Status of respondents as categorized by FCS (N=77)

Category of FS status	1st Batch (2012)		2nd Batch (2013)		Total	
	F	%	F	%	F	%
Food insecure with SEVER hunger	0	-	1	2.6	1	1.3
Food insecure with MODERATE hunger	3	7.9	4	10.3	7	9.1
Food insecure WITHOUT hunger	4	10.5	1	2.6	5	6.5
Food Secured	31	81.6	33	84.6	64	83.1
Total	38	100.0	39	100.0	77	100

F = Frequency.

Source: Own survey, 2016

The study finding showed that, as indicated on the above Table 2, 64 (83.1%) of the total 77 become food secured and also 5 (6.5%) of the samples become food insecure without hunger. It was only 1 (1.3%) and 7 (9.1%) sampled studies found at food insecurity with severe and moderate hunger, respectively. As per registry year into the program, 31 (81.6%) and 33 (84.6%) of the first and second ES batches become food secured.

When viewed the categorized FS status by sex, 16 (88.8%) of male and 48 (81.4%) of female study samples become food secured and the cumulative of the two found 83.1%. This was considerably high achievement. Food insecure with severe hunger found at its minimal extent, where only one female was labeled, as shown in the below Table 3.

Table 3: Sex of study samples as categorized by FS Status of respondents

Category of FS status	Male		Female		Total	
	F	%	F	%	F	%
Food insecure with SEVERE hunger	0	-	1	1.7	1	1.3
Food insecure with MODERATE hunger	1	5.6	6	10.2	7	9.1
Food insecure WITHOUT hunger	1	5.6	4	6.8	5	6.5
Food Secured	16	88.8	48	81.4	64	83.1
Total	18	100.0	59	100.0	77	100

F = Frequency.

Source: Own survey, 2016

Majority of the samples who were in the age of 25 to 55 demonstrated success to be away from the food insecurity, where from the total 64 (83.1%) food secured studied samples, 55 (87%) found from these age groups. One of the respondent that fall under with severe food insecurity lied in 25 to 40 age group, while Seven of moderately food insecure samples become from 25 to 40, (5.2%)

and 40 to 55, (2.6%) and above 55, (1.3%). The following Table 4 indicated the result of age against food security category.

Table 4: Relationship between Age and FS Status of respondents as categorized by FCS

Age of ESPs		Food insecure with SEVERE hunger	Food insecure with MODERATE hunger	Food insecure WITHOUT hunger	Food secured	Total
Below 25	Count	0	0	0	4	4
	% of Total	0.00%	0.00%	0.00%	5.20%	5.20%
25 - 40	Count	1	4	3	34	42
	% of Total	1.30%	5.20%	3.90%	44.20%	54.50%
40 - 55	Count	0	2	2	21	25
	% of Total	0.00%	2.60%	2.60%	27.30%	32.50%
Above 55	Count	0	1	0	5	6
	% of Total	0.00%	1.30%	0.00%	6.50%	7.80%
Total	Total Count	1	7	5	64	77
	% of Total	1.30%	9.10%	6.50%	83.10%	100.00%

Source: Own survey, 2016

As the study result of education level comparison by food security status, in the below Table 5, revealed 21 (27.3%) of the 24 ‘illiterate’, 6 (7.8%) of the 7 ‘read and write’, 5 (6.5%) of the 6 ‘grade 1 to 4’, 21 (27.3%) of the 27 ‘grade 5 to 8’, and 11 (14.3%) of the 13 ‘grade 9 to 12’ study respondents become food secured. Study participants that were illiterate and at lower literacy and grade levels showed encouraging results as associated with the expectation for lesser performance due to educational background.

Table 5: Education level in relation to FS Status of respondents as categorized by FCS

Category by Education level	FS Status of respondents as categorized by FCS.				Total
	Food insecure with SEVER hunger	Food insecure with MODERATE hunger	Food insecure WITHOUT hunger	Food Secured	
Illiterate					
Count	0	2	1	21	24
% of Total	0.0%	2.6%	1.3%	27.3%	31.2%
Read and Write					
Count	0	0	1	6	7
% of Total	0.0%	0.0%	1.3%	7.8%	9.1%
Grade 1 - 4					
Count	1	0	0	5	6
% of Total	1.3%	0.0%	0.0%	6.5%	7.8%
Grade 5 -8					
Count	0	3	3	21	27
% of Total	0.0%	3.9%	3.9%	27.3%	35.1%
Grade 9 - 12					
Count	0	2	0	11	13
% of Total	0.0%	2.6%	0.0%	14.3%	16.9%
Total					
Count	1	7	5	64	77
% of Total	1.3%	9.1%	6.5%	83.1%	100.0%

Source: Own survey, 2016

For the study samples, minimum of one and maximum of nine household size were observed, Table 5. Sixty five (84.4%) of the interviewed ES participants had family size of 3 to 4 and 5 to 6; out of them 52 (80%) became food secured. The one poorest food security status found in a household having 5 to 6 family size, and the next poor status, 5 (6.5%) and 2 (2.6%) fall under 3 to 4 and 5 to 6 family sized households, respectively.

Table 6: Household size in relation to FS Status of respondents as categorized by FCS

Category by family size		FS Status of respondents as categorized by FCS.				Total
		Food insecure with SEVERE hunger	Food insecure with MODERATE hunger	Food insecure WITHOUT hunger	Food Secured	
1 – 2	Count	0	0	0	10	10
	% of Total	0.0%	0.0%	0.0%	13.0%	13.0%
3 – 4	Count	0	5	2	37	44
	% of Total	0.0%	6.5%	2.6%	48.1%	57.1%
5 – 6	Count	1	2	3	15	21
	% of Total	1.3%	2.6%	3.9%	19.5%	27.3%
7 – 8	Count	0	0	0	1	1
	% of Total	0.0%	0.0%	0.0%	1.3%	1.3%
9 – 10	Count	0	0	0	1	1
	% of Total	0.0%	0.0%	0.0%	1.3%	1.3%
Total	Count	1	7	5	64	77
	% of Total	1.3%	9.1%	6.5%	83.1%	100.0%

Source: Own survey, 2016

4.1.3 Poverty status assessment

As indicated under the previous chapter, in order to know the poverty status of the sampled ES participants, the annual households' income were assessed and divided to their respective number of households' size, then divided to 365. The assessment and following computation enabled the study to obtain income of per person per day for each member(s) within the sampled households. After this, according to the internationally agreed procedure to determine extreme poverty status, at 1.90 USD, of countries by applying purchasing-power parity's (PPP) conversion factor, which was 7.3 for Ethiopia as of 2014 (World Bank, 2015). Hence, by multiplying \$1.9 by 7.3, the poverty line for Ethiopia was converted and set at 13.87 ETB.

The sub-sequent paragraphs and tables presented the results obtained on the poverty status of the study respondents against their demographic characteristics.

From the total 77 sample respondents, 73 (94.8%) of them become above the poverty line; while only 4 (5.2%) were below the poverty line. The researcher conferred the success of the sampled ES participants for being above the extreme poverty line, as displayed on Table 6. When viewed at year of entry into the ES program, 92.1% of the first batch and 94.4% of the second batch study samples exceeded the poverty line upward. In the context of sex composition, all of sampled male, 18, found above the poverty line; whereas for the female only 4 (5.2%) out of 59 were below the line.

Table 7: Poverty Status of respondents as per entry year to ES and sex of study samples

Sample ESPs	Above Extreme Poverty Line	Below Extreme Poverty Line	Total	
	Frequency	Frequency	F	%
1st Batch	35 (92.1%)	3 (7.9%)	38	49.4
2nd Batch	38 (94.4%)	1 (2.6%)	39	50.6
Total	73 (94.8%)	4 (5.2%)	77	100.0
Male	18 (100%)	0	18	23.4
Female	55 (93.2)	4	59	76.
Total	73	4	77	100.0

F = Frequency.

Source: Own survey, 2016

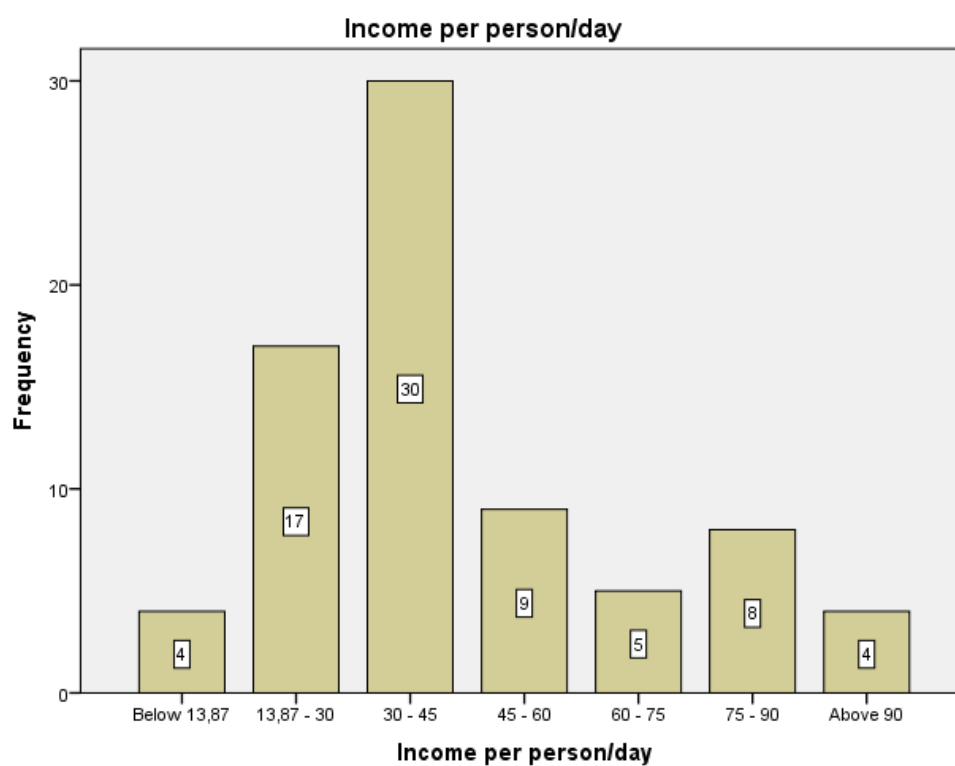
The research also tried to investigate the dispersion of per person per day income of the study participants by making ranges of income against the poverty line, as indicated on the below Table 8 and Graph 4. The majority of the income concentrated on the income ranges of 30 - 45 (30), 13.87 – 30 (17); and also in 45 – 60 (9) and 75 – 90 (8). The minimum amount of income assessed by the study was 10.58 ETB while the maximum was 113.05 ETB. This research made a case story with one of the best performing sampled ES participant that presented in the end of this chapter.

Table 8: Poverty Status of respondents as their per day per person income weighted at 13.87 ETB

Income per person/day, ETB	Above Extreme	Below Extreme	Total
	Poverty Line	Poverty Line	
Below 13.87	0	4	4
13.87 - 30	17	0	17
30 - 45	30	0	30
45 - 60	9	0	9
60 - 75	5	0	5
75 - 90	8	0	8
Above 90	4	0	4
Total	73	4	77

Source: Own survey, 2016

Figure 7: Income per person per day of study respondents (N=77)



Source: Own survey, 2016

4.1.4 Microenterprise performance description

The assessment carried out indicated that the sampled ES participants were running, mainly, 15 types of microenterprises or IGAs. Of course, they were running additional business venture side by side, despite they had one that basically focused on. From the 15 types, petty trade (15), dry food processing – locally named as *Balitina* (11), industrial products sale (10) and *injera* selling (9) were the highest types of enterprises, in descending order, operated by the study samples. Performance status of the enterprises run by the sample respondents is presented on the below Table 9.

Table 9: Current performance of microenterprise per type

Category by type of enterprise	Microenterprise performance, current:				Total
	Highly Improved	Slightly Improved	No Change	Declined	
Petty trade	7	7	0	1	15
Shoat fattening	5	0	0	0	5
Poultry	0	2	0	0	2
Livestock fattening	0	1	0	0	1
Dairy farming	1	0	0	0	1
Veg & fruit retailing	1	6	0	0	7
Grain trade	2	4	0	0	6
<i>Injera</i> selling	5	3	1	0	9
Dry food processing	5	4	1	1	11
Cooked food & drinks sell	2	3	0	0	5
Hand crafts	0	1	0	0	1
Beauty salon & hair making	1	0	0	0	1
Cloth, shoe and used items sell	0	1	0	0	1
Industrial products sell	8	1	1	0	10
Others	1	1	0	0	2
	38	34	3	2	77

Source: Own survey, 2016

When compared to the total 77 study samples, 18 (23.4%) and 20 (26.0%) of the first and second batch respondents achieved high improvement on their business; while similarly, 17 (22.1%) of the first and second year study participants showed slight improvement on their enterprises performance as compared to their entry period into the program or if they start business after joining the program. Only 3 (3.9%) and 2 (2.6%) samples registered at low microenterprise performance status, as ‘no change’ and ‘declined’, as presented in the below Table 10.

Table 10: Microenterprises Performance status, current, Vs entry year to the ES intervention

Category by ES entry		Microenterprise performance status:				Total
		Highly Improved	Slightly Improved	No Change	Declined	
1st batch	F	18	17	2	1	38
	ESP	23.4%	22.1%	2.6%	1.3%	49.4%
2nd batch	F	20	17	1	1	39
	ESP	26.0%	22.1%	1.3%	1.3%	50.6%
Total	F	38	34	3	2	77
	ESP	49.4%	44.2%	3.9%	2.6%	100.0%

F = Frequency.

Source: Own survey, 2016

As gender is an important demographic characteristics to be considered by any development initiative, the study also indicated performance of the microenterprise status by sex, and revealed on the below Table 11. Accordingly, 11 of the total 18 male and 27 of the total 59 female accomplished high improvement on their business which was the majority’s coverage as compare to the aggregated sum of slight improvement (34), no change (3) and declined (2).

Table 11: Microenterprise performance status by Sex of sample

Category by sex	Microenterprise Performance, current:				Total
	Highly Improved	Slightly Improved	No Change	Declined	
Male	11	6	1	0	18
Female	27	28	2	2	59
	38	34	3	2	77

Source: Own survey, 2016

Number of years the sampled respondents were operating business was classified by four years average for the reason that to coincide with the ES intervention period, since the first year ES participants were targeting four years before, in August 2012. For the case of second year batches it become three years. Hence, the assessment showed that 44 of the 77 study samples were new business establishers, that is after targeted and assisted by the UHANFS project. In microenterprise performance terms, except 5 business, the remaining 38 and 34 study samples achieved ‘highly improved (38) and ‘slightly improved’ (34) enterprises. The study perceived that the ES intervention rated as successful for various reasons.

Table 12: Microenterprise performance status in relation to Years of experience on business

Category by Years of experience	Years of experience on business				Total
	Highly Improved	Slightly Improved	No Change	Declined	
Below 4	19	22	1	2	44
4 - 8	13	6	1	0	20
8 - 12	4	4	0	0	8
12 - 16	1	1	1	0	3
Above 16	1	1	0	0	2
	38	34	3	2	77

Source: Own survey, 2016

4.1.5 Determinant factors influencing performance of microenterprise

This sub-section described the findings of the research to respond for the third objective of the study, which was overviewing factors that have influence on performance of microenterprises or income generating activities run by the study respondent ES participants. List of Tables that produced from the assessments results guided to write-up the descriptions on the determinant factors; and those Tables were annexed as **Appendix 4** of this report.

Number of dependents per household: Result of the study showed that respondent households had one to six dependent age groups that were below the age of 14 and above 64. When disaggregated, total of 9, 21, 27, 12, 6 and 2 households had 1, 2, 3, 4, 5 and 6 number of dependents under them, respectively. On average, 50% of each households that had one to four dependents achieved ‘highly improved’ and the other halves ‘slightly improved’ status on their microenterprise. Only 8 households had had five and six dependent members under their custody. Their performance showed almost no observable decrease than those with lower dependents number(s). Two households’ microenterprise performance were ‘declined’ from households with two and five dependents. The study didn’t find variation on microenterprise performance as a result of size of dependent per household. However, an assessment done in Tanzania by WFP indicated that households with a large share of dependents are more prone to food insecurity (WFP, 2013).

Training receipt: The ES intervention under the Urban HIV and AIDS Nutrition and Food Security (UHANFS) project provided series of trainings for its targeted ES participants. Titles of major four trainings organized were Methodology of Village Saving and Loan Associations (VSLA), Financial Education, Intensive Business Skills, and Vocational or Technical trainings on pre-assessed type of enterprises. Hence, the study samples were asked about relevance and

applicability, and determinance of trainings for their microenterprise or IGA was forwarded. The respondents' result in terms of relevance applicability indicated that 61 (79.2%), 15 (19.5%) and 1 (1.3%) responded as 'very high', 'high' and 'medium', respectively. On the other side, 58 (75.3%) replied 'strongly agree' and 19 (24.7%) replied 'agree' to assure the trainings they received were the corner stone to improve their awareness, capability and self-confidence. Hence, the study learned the determinance of training for the success of ES intervention through enhanced performance of microenterprises.

Participation in saving and loan groups: All of both the actual ES intervention participants and at the time the study samples were VSLA participants since an integral component of the ES project. The result of the study, on the below Table 13, indicated that there were encouraging improvement on the saving performance of the sampled ES participants in their respective VSLAs.

During starting of the VSLA participation, the minimum and the maximum amount of saving per month was 10 and 60 ETB, respectively. Only 4 (5.2%) of the 77 able to save the 60 ETB; while the majority (46 or 59.7%) were making 20 ETB as monthly saving. After three to four years active involvement on the group saving and loan scheme, the minimum and maximum monthly saving amount per sample boosted to 40 and 360 ETB. Their savings performance showed wider range as compared to the starting period. Majority of the samples, 24.7% and 33.8% achieved saving of 80 and 120 ETB, respectively. The respondents of the study also had other saving practices in microfinance, formal banks and even at house.

Table 13: Saving performance of sampled ES participants in their VSLAs

Saving, ETB per Month in VSLAs	During Starting			Current		
	F	%	Cumulative Percent	F	%	Cumulative Percent
10	14	18.2	18.2	0	0	0
20	46	59.7	77.9	0	0	0
30	7	9.1	87.0	0	0	0
40	6	7.8	94.8	7	9.1	9.1
60	4	5.2	100.0	9	11.7	20.8
80	0	0		19	24.7	45.5
90	0	0		3	3.9	49.4
100	0	0		7	9.1	58.4
120	0	0		26	33.8	92.2
160	0	0		1	1.3	93.5
180	0	0		2	2.6	96.1
240	0	0		2	2.6	98.7
360	0	0		1	1.3	100.0
Total	77	100.0		77	100.0	

F = Frequency

Source: Own survey, 2016

The study investigate that 70 (90.9%) of the samples assured their strong agreement on the determinance of participation to adhere to regular saving and also to access loan to reinforce their business running. The other 7 (9.1%) respondents witnessed they ‘agree’ on the importance of the VSLA participation for them.

Financial support: The study participants were provided with financial support by the ES program. The provision was initially as loan, then after successful repayment for at least two loans total of 7,000 ETB were granted as reward for their improvement on three installments, as 3500, 2100 and 1400 ETB (WFP, 2012). Hence, the study samples were asked whether they will be able to attain their current microenterprise and income status, 55.8%, 5% and 29% responded as ‘no, I will not achieve’, ‘I might achieve will took longer time’ and ‘yes, I will achieve’, respectively. Hence, the study concluded that the financial support for the ES intervention were determinant factor.

Access to credit service: the result of the study indicated that 62.3% and the remaining 37.7% responded as they ‘strongly agree’ and ‘agree’ on the determinance of getting credit service from

microfinance (MFI) to expand microenterprises' performance, respectively. The respondents also expressed that they experienced varied challenges to access MFI credit service. Accordingly, as indicated in the below Table 14 the challenges were *Fear of taking loan or fear of inability to repay* (29.9%), *lack of collateral* (15.6%), *not-willing to take credit through group formation* (22.1%), *fear of higher interest rates* (20.8%) and *other problems* (11.7%).

Table 14: Challenges experienced by respondents to get credit from MFI

	Frequency	Percent	Valid Percent	Cumulative Percent
Fear of taking loan, or fear of inability to repay	23	29.9	29.9	29.9
Lack of Collateral	12	15.6	15.6	45.5
Not willing to take loan as-grouped	17	22.1	22.1	67.5
Fear of higher interest rate	16	20.8	20.8	88.3
Other problems	9	11.7	11.7	100.0
Total	77	100.0	100.0	

Source: Own survey, 2016

Ownership of premises: Type of ownership of market place and also living house were assessed by the study as justified by others to determine performance of microenterprise. Hence, the market premise ownership type of the respondents found as 6.5% within own house, 40.3% in government house for rent, 14.3% rented in private houses, 31.5% in communal market place with payment to government, and 7.7% around homestead and road side. It showed there is variability on the premise ownership type which exert different type and extent of challenge and opportunity for their business.

With respect to challenges experience by the respondent ES participants as a result of premise ownership type was indicated on the below Table 15 Accordingly, the majority, 59.7% described as they didn't faced any problem; while the remaining were negatively affected by frequent house changing (11.7%), higher rent fee (19.5%) and other undisclosed problems (9.1%). Therefore, the

study concluded that market place ownership was one of the determinate factors of microenterprises' performance since 40.3% of the study samples were negatively influenced.

Table 15: Challenges faced by respondents while working on rented house/place

	Frequency	Percent	Cumulative Percent
Frequent house changing affected my business	9	11.7	11.7
Paying higher fee for rent	15	19.5	31.2
Other challenge	7	9.1	40.3
I didn't faced any problem	46	59.7	100.0
Total	77	100.0	

Source: Own survey, 2016

Demand to market: The research carried out assessment on the degree or extent of market demand to buy the respondents' products and services. The result, then, revealed that the market demand were high (68.8%), medium (28.6%) and low (2.6%). The study, hence, deduced that market demand was not a problem for them. However, the research speculated that this market access might not be as good enough if they expand their microenterprises due to higher competition from the wider market.

Monitoring service: All the study samples, 100%, responded that the monitoring and coaching service provided to them, through ES facilitators, government implementing partners and World Food Programme staffs, were highly essential to determine their overall achievement on the ES program participation. Therefore, the study concluded that monitoring schemes were critically determinant to attain positive improvement on the microenterprise performance of the study samples.

4.2 Discussion

4.2.1 Change on food security status

After thorough description of the study results, the food security status still compared with per capita income per day as obtaining during computing for poverty status above. As presented in the below Table 16 there was a positive relationship between the income and the food security status, which implies as income grows the food security status got improved. The assessment results clearly pointed that all ES participants that earn higher income, for example above 45 ETB per day found food secured. In similar fashion, there was negative relation between monthly income per adult equivalent and food insecurity level (Sisay and Edriss, 2012). The result confirmed that the ES intervention helped the majority (83.1%) of its participants food secured.

Table 16: Income per person/day Vs FS Status of respondents as categorized by FCS.

Income per person/day, ETB	FS Status of respondents as categorized by FCS.				Total
	Food Insecure with SEVER hunger	Food Insecure with MODERATE hunger	Food Insecure WITHOUT hunger	Food Secured	
Below 13.87	1	3	0	0	4
13,87 - 30	0	4	4	9	17
30 - 45	0	0	1	29	30
45 - 60	0	0	0	9	9
60 - 75	0	0	0	5	5
75 - 90	0	0	0	8	8
Above 90	0	0	0	4	4
Total	1	7	5	64	77

Source: Own survey, 2016

In terms of assessing the trend of improvement in between status of food security and performance of microenterprises, as shown on Table 17, higher food security category corresponded to

improved microenterprise performance at high and slight degrees. There was positive relationship in between.

Table 17: Relationship between Food Security Status and Microenterprises' Performance

FS Status categorized by FCS	Performance of microenterprises				Total
	Highly Improved	Slightly Improved	No Change	Declined	
Food insecure with SEVER hunger	0	0	0	1	1
Food insecure with MODERATE hunger	1	2	3	1	7
Food insecure WITHOUT hunger	2	3	0	0	5
Food Secured	35	29	0	0	64
Total	38	34	3	2	77

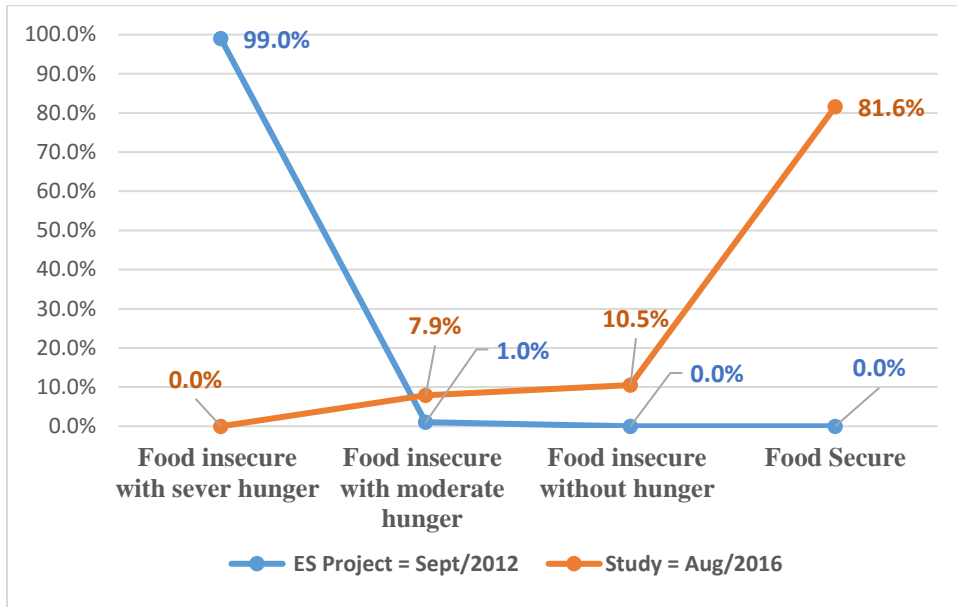
Source: Own survey, 2016

To respond for objective one of the study, after all step-full effort exertion, to assess change on the status of food security, the research made its final stage by comparing with the baseline results. As noted in preceding chapter, the justification to compare secondary data (that is, baseline status of the UHANFS project) and primary data (the finding of the study), both applied the same food consumption score (FCS) as a tool to assess food security status on the same ES participants.

Accordingly, as graphically displayed on the below Figure 8 and 9, in the case of first batches, the 99% food insecure with sever hunger proportion sharply dropped to 0%; while on the contrary the food secured category boosted upward from 0% to 81.6%. Similar trend of the food security status improvement, moving across the food security categories from with sever food hunger towards food secured, was achieved by the second batches too. The percentage of food insecure with sever food hunger at baseline (83.0%) lowered to 2.6% during the study assessment period, September 2016; while food secured categories launched up from 0% & to 84.6%.

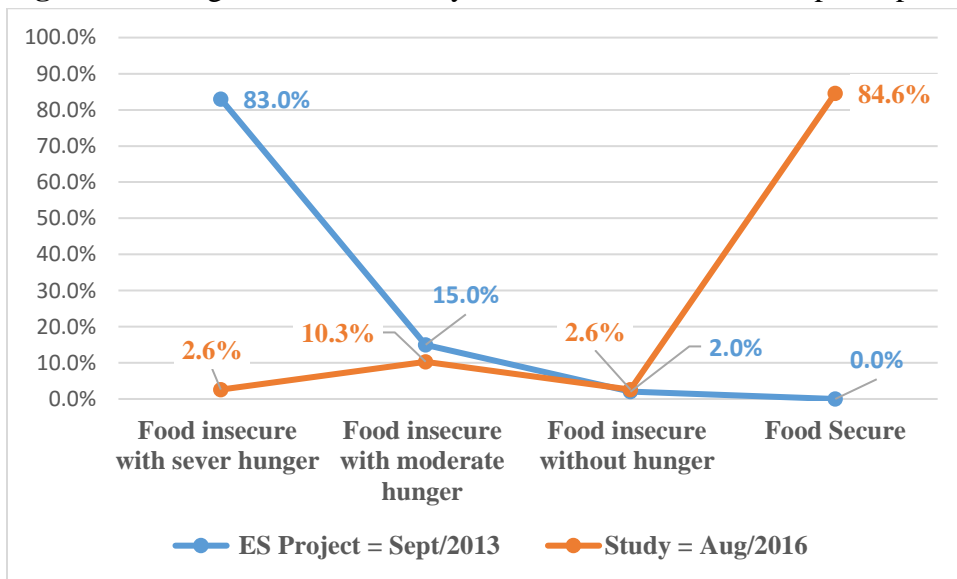
Therefore, the study confirmed that the sampled ES participants' food security status was significantly improved as compared to their status at the entry into the ES intervention.

Figure 8: Change on Food Security status of First batch ES participants at Baseline and Study



Source: WFP, 2012 and own survey, 2016

Figure 9: Change on Food Security status of Second batch ES participants at Baseline and Study



Source: WFP, 2013 and own survey, 2016

4.2.2 Poverty status

The result of the study indicated that 73 out of the 77, that is 94.8%, become above the poverty line to demonstrate upward improvement on their poverty status. The research triangulated the improvement on poverty status with the food security status of the study, as computed using FCS, indicated on Table 18 to look into their trend. As a result, all of the food secured (64) and food insecure without hunger (5) made their destination above the extreme poverty line by justifying the positive and upward status improvement on both of the poverty and food security.

Table 18: Poverty status cross tabulated with Food security Status.

FS Status of respondents as categorized by FCS	Poverty Status as identified by poverty line computation		Total
	Above Extreme Poverty Line	Below Extreme Poverty Line	
Food insecure with SEVER hunger	0	1	1
Food insecure with MODERATE hunger	4	3	7
Food insecure WITHOUT hunger	5	0	5
Food Secured	64	0	64
Total	73	4	77

Source: Own survey, 2016

In addition, poverty status was matched with the status of microenterprises' performance, indicated on Table 19. Similar to the result of food security status that cross-tabbed with microenterprises' performance, all the highly improved (38) and slightly improved (34) microenterprise performer respondents sealed their status as above the extreme poverty line.

Table 19: Poverty Status cross tabulated with Microenterprises' Performance of respondents.

Performance of status of microenterprises	Poverty Status of respondents		Total
	Above Extreme Poverty Line	Below Extreme Poverty Line	
Highly Improved	38	0	38
Slightly Improved	34	0	34
No Change	1	2	3
Declined	0	2	2
Total	73	4	77

Source: Own survey, 2016

4.2.3 Factors determining microenterprise performance

Martin (2010) explained performance in business can be defined in output terms such as quantified objectives or profitability. Performance has been the subject of extensive and increasing empirical and conceptual investigation in the small business literature (Bidzakin K.J., 2009:31).

The results indicated, upon assessment of years of experience on business, about 44% of the interviewed respondents were new beginners while the remaining 56% had had four to 17 years of experience in running IGA. According to the information gathered from key informant interview conducted with the ES community facilitators, three female and two male, there were ES participants who are 'back-to-work'. That implied, they had had the experience of running business but interrupted for many difficulties; however, they re-joined their IGA/microenterprise again for being targeted by the ES intervention to raise the new beginners' proportion above the 44%. This was positive side of the UHANFS project to assist the food insecure and vulnerable PLHIVs to build their capacity in order to strive by themselves to carry their income demands for their households.

The FGD also asked the KIs to respond their views for a question "Despite the challenges faced on work premise, market and others, how higher improvements achieved on the participants food security and poverty status?" Accordingly, they verified that the key for the improvement was as

the result of the projects' conducive and reward based modality application. The initial trainings helps to enhance awareness, knowledge and self-confidence; in VSLAs, the higher the saving of a member, the higher amount of loan (three fold of the saving) they can claim; the financial assistance, called Matching Fund (MF), insisted to manage own business to get as loan and then through reward; and finally there were continuous and responsive monitoring scheme.

Case story of one of best performer Economic Strengthening Program participant in Dessie.

Poverty could vanish

W/ro Werkie Yirga, 51, is a tough woman living in 05 kebele of Dessie town in Amhara region. She knew her HIV status eighteen years before while at worst situation that her husband was ill of TB, she gave birth, and sick on her eye and left side of her body. Both of her baby and husband departed by death. The house renters stigmatized her by abandoning to use their pipe water and latrine. After a year she went to her rural relatives. However, no one was as such supportive but lived longer until returned back to Dessie in the beginning of 2012. She started ART the same year.

She failed to get collateral for credit from MFI and livelihood projects to run business but started selling food for 1.35 birr per dish for college students; however, prohibited to proceed due to health and sanitation requirement. It was at this time that she got the chance to be targeted for the PEPFAR funded UHANFS project for Economic Strengthening participation.

“For the first time, I felt hopefulness and the possibility to change.” Workie got inspired after attending training on saving and loan methodology and preliminary financial education. She touched by the training titles of “Actors and Considerations for business establishment” and then shortly made appeal for getting living house and succeeded due to the linkage created by the project and concerned sectors. With no delay, she established small inn in the house with a capital of 1,100 ETB to prepare only snacks and fasting food to widen her customers for all religious customer. She backed by continuous savings and loan taking, and also her restaurant become open until 03:00 am beyond mid-night.

After a year she started grain trade, using rental stores for getting about 20, 000 birr a year. In addition, she engaged into leasing-in farm land for two years contract through share-cropping agreement that enabled her to get an annual income of above 15,000 birr for the past three years.

Currently, Workie attained a working capital of 10,000 birr at hand, 110,000 birr saving in two banks, and about 40,000 birr asset for the restaurant as equipment and utensil. Workie is emphasizing that “A Degree holder couldn’t see what I am earning a month. I am saving 4,080

birr Iqub per month after covering every expenditure for nine persons under me – five family and four employees. Glory to God, I passed through poverty and sickness to prosperity. Poverty vanished from my life and transformed to assist others.”

Compared to her ES inception status, her body weight and CD4 count increased from 56 to 85 Kg and 160 to 900, respectively. She is adhering her ART comfortably with no thinking about AIDS. In terms of charitableness, she adopted a teenage impaired by mental retardation; she assisted seven helpless women to deliver their babies safely in her house – and one of the seven women stayed with her until the baby reached four and then engaged her to marriage; and she is not selling left foods rather bestowing for feeding the poor. She also provided about 70,000 birr for six unemployed relative young women to support their livelihoods reinforcement.

This entrepreneur lady is under process to launch additional joint grain trade with her brother by contributing 100,000 birr. In the process, Workie successfully demonstrated her endurance, strength, creativeness and charitableness.

CHAPTER 5: SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Summary

Food security is a critical problem for Ethiopian populations, both in urban and rural areas. There are 8.3 million chronically food insecure households in 319 woredas of Ethiopia. Establishing Ethiopia's social protection framework is part and parcel of an integrated approach to the progressive realization of social and economic rights noted in article 41 of the Ethiopian constitution, August 1995. Reducing vulnerability and poverty, and promoting more productive livelihoods was one of the objectives set by the government of Ethiopia in March 2012 under the National Social Protection Policy (NSPP).

Urban HIV and AIDS Nutrition and Food Security (UHANFS) Project was in implementation from 2012 to 2016 in Ethiopia in nine regions and two city administrations, where Amhara was one of the nine. Accordingly, Dessie city was one of the project intervention point within the Amhara region. Dessie is located 400 Km from the capital city to the north and had total population of 151,174. Dessie was selected for the intervention due to the severity of urban poverty and higher HIV/AIDS caseload.

The UHANFS project had two major components, and the study was exclusively focused on Economic Strengthening (ES) component. ES refers to actions taken by governments, donors and implementers to improve livelihoods' of Individuals or households. Household Economic strengthening (HES) comprises a portfolio of interventions to reduce the economic vulnerability of families and empower them to provide for the essential needs of their members they care for, rather than relying on external assistance. ES can be perceived as concisely presented in the following Table 20.

Table 20: Summary of Economic Strengthening Intervention

Components	Characteristics	Goal	ES Activities
Provision	Highly vulnerable	Consumption support, asset recovery and accumulation	Actions focus on provision of food and asset (basic household needs) to mitigate shocks that impact economic outcomes and future opportunities.
Protection	Vulnerable	Asset protection; consumption smoothing to reduce risks or cope with shocks	Interventions focus on money management skills and retention of key assets through trainings, group saving and lending, and to improve households' ability to enhance its economic stability.
Promotion	Ready to growth	Household asset and income growth; consumption improvement	Interventions focus technical support through trainings, enterprise development, micro credits, value chain, and other BDS facilitations.

Source: Adapted from LIFT Assessment, WFP/UHANFSP ES strategy, and FHI 360 Bulletin.

The major objective of this research was to assess effectiveness of Economic Strengthening Intervention towards achieving food security and poverty reduction of UHANFS project participants living in Dessie city in Amhara region in Ethiopia. To conduct the study, on currently active 340 ES participants, by the time of conducting the study, from first and second ES batches of Dessie city to constitute study population to undergo sample size determination. The number of women population were 137 and 134 from the first and second ES batches, respectively that implies about 80%.

Systematic random sampling method was administered for the reason that list of all the target population were available and 77 sampled ES participants then selected for the assessment. Out of

these, 59 (76.6%) were female; while the remaining 18 (23.40%) were male. Hence the study considered that the sample showed good representation of its total population.

Based on the results obtained from conducted assessment, through detailed interview with respondents, focus group discussions with ES facilitators and key informant interviews, the study presented its findings as detailed and comprehensive as possible to for this report. Some of the results of the study were pointed as followed.

When viewed the Food Security status by sex, 16 (88.8%) of male and 48 (81.4%) of female study samples become food secured as compared with their own categories; and the cumulative of the two found 83.1%. This was considerably high achievement. Food insecure with sever hunger found at its minimal point, where only one female was labeled.

From the total 77 sample respondents, 73 (94.8%) of them become above the poverty line; while only 4 (5.2%) were below the poverty line. The researcher conferred the success of the sampled ES participants for being above the extreme poverty line. When looking at year of entry into the ES program, 92.1% of the first batch and 94.4% of the second batch study samples exceeded the poverty line upward. When viewed by sex composition, all of sampled male, 18, found above the poverty line; whereas for the female only 4 (5.2%) out of 59 were below the line.

The research also tried to investigate the dispersion of per person per day income of the study participants and found the majority of the income concentrated on the income ranges of 30 - 45 (30), 13.87 – 30 (17); and also in 45 – 60 (9) and 75 – 90 (8) ETB. The minimum amount of income assessed by the study was 10.58 ETB while the maximum was 113.05 ETB.

Fifteen types of microenterprises or IGAs were operated by the study respondents. From the 15 types, petty trade (15), dry food processing – locally named as *Balitina* (11), industrial products sale (10) and *injera* selling (9) were the highest types of enterprises, in descending order, that operated by the study samples. The assessment also showed, 44 of the 77 study samples were new business establishers that is they established their IGA/microenterprise after targeted and assisted by the UHANFS project. In microenterprise performance terms, except 5 business, 38 and 34 study samples achieved ‘highly improved (38) and ‘slightly improved’ (34) enterprises.

The study didn’t find variation on microenterprise performance as a result of size of dependents per household. This was a similar finding for few factors that expected to create difference.

The study investigate that 70 (90.9%) of the samples assured their strong agreement on the determinance of participation into group saving and lending schemes to adhere to regular saving and also to access loan to reinforce their business running.

5.2 Conclusion

In the case of First batches, 99% food insecure with sever hunger during entry into the ES intervention sharply dropped to 0%; while on the contrary the food secured category boosted upward from 0% to 81.6%. Similar trend of the food security status improvement attained by the second batches. The percentage of food insecure with sever food hunger at baseline (83.0%) lowered to 2.6% during the study assessment period, September 2016; while food secured categories launched up from 0% & to 84.6%.

Seventy three out of the 77, that is 94.8%, become above the poverty line to demonstrate upward improvement on their poverty status.

Therefore, in due consideration with the objectives of the research work, the study justifiably concluded that the sampled ES participants' food security status was significantly improved as compared to their status at the entry into the ES intervention; there was escape from the clutch of poverty by the study respondents (94.8%) as a result of their involvement in ES program that operated by World Food Programme (WFP) through its UHANFS project.

The study result also indicated that due to food security attainment by the larger proportion (83.1%) of the study households, there were minimal variation observed across on the results as per demographic characteristics towards food security and poverty status.

5.3 Recommendation

Urban food insecurity is a growing concern due to the toxic combination of high rates of urban poverty, high dependency of urban households on food supplied by the market, and fluctuating food prices. Household food insecurity was particularly high among low income households and those headed by uneducated, daily wagers and government employed household heads. Therefore, policy makers should work on stabilization of the food market and creating opportunities that could improve the livelihood and purchasing power of urban households (Birhane et al, 2014).

The subsequent recommendation points were forwarded by the research based on the empirical findings and interviews conducted with key informants from the implementers.

Participation in saving and loan groups was identified by the study as one of the essential effective tools to enable the ES participants practice saving scheme and to access loan without collateral problem. The Village saving and Loan Association (VSLA) demonstrated by the ES intervention showed encouragement of saving for the reason that the more amount of saving in the VSLA allows the opportunity to get more loan; that is the members had allowed to get loan three fold of their saving, as long as they are in business running and securing witness from their own group members. Hence: consider savings as a first step for poor households to build their asset base and access and financial services; and maintain that participants in group-based savings have to be self-select into schemes and assisted to manage them independently.

Based on the result of study, above 60% of the respondents revealed that they will not attain their improved performance of microenterprises where the financial support were not in place. Hence, the study concluded that the financial support for the ES intervention were determinant factor. Accordingly, financial assistance, either as start-up capital or for grant, should be tied with group saving schemes, allowing on loan basis to improve their accountability. Regarding to the amount, it should be based on assessment to feasibly match with type of business, work premise owning, microenterprise size and other contexts. In addition, the study also recommended that the loan term period shouldn't be static across all enterprises and throughout the project period; rather subject to the seasonality context and capacity of the entrepreneur for the types of microenterprises.

Ethiopia lack uniform modalities of the Economic Strengthening intervention to guide, at least, setting of contexts, requirements and standards. Reviewed literature for the study on few of ES interventions implemented in Ethiopia, for example for PLHIVs, OVCs, adolescents and other population groups, all applied carried modalities and provisions. Hence, the study recommends the

need for development National Economic Strengthening Guideline that comprises standards and procedures to be adopted by every actors for localized implementation.

A Upon reviewing factors that had influence on performance of microenterprises or IGAs, the study noted that there was mysterious nature to identify the determinance of specific factors since there is cumulative and inter-weaved effects across the factors towards their performance status. Therefore, this study pronounced that detail and specific research should be done to assess determinant factors that influence performance of microenterprises operated by the poor, illiterate and ill-health sections of the urban population.

The business activities run by the ES participants didn't well occupy the shape of microenterprises while viewed from the type of sector (not industrial and manufactured focus) and legality or formality of the firm, as set by FMSEDA (2015) of Ethiopia. Therefore, to ensure sustainability of the well-established IGAs and attained improvements on the food security status, continual BDS support is vital.

The study result indicated that the various packages of support arrangement for the targeted food insecure PLHIVs were the key driving force to achieve improved microenterprise performance. Such supports need be provided for similar entrepreneurial interventions through responsive and integrated Business Development Services (BDS) with concerned government offices to solve major bottlenecks, for example, work premises, market linkage and micro credit.

This research pronounced that the WFP's ES intervention was an effective ES intervention, which was well designed and suited for the urban impoverished, inclusive of 100% of its participants were PLHIVs, 80% women and 31.17% illiterate without any educational background. Therefore,

it is a good opportunity to share the lesson to the Ethiopian National Urban Productive Safety Net Program (UPSNP) implementation.

The poor in Ethiopia have low income that leads to low investment which in turn leads to low productivity and income. Access to institutional credit that contributes to the increase in investment is very limited in Ethiopia. The majority of the poor access financial services through the informal channels, moneylenders, *lqub*, *Iddir*, friends, relatives, traders, etc. The potential demand of the poor for microcredit is enormous (Wolday A., 2001).

The result of the study indicated that 62.3% and the remaining 37.7% responded as they 'strongly agree' and 'agree' on the determinance of getting credit service from microfinance (MFI) to expand microenterprises' performance, respectively. The respondents also expressed that they experienced varied challenges to access MFI credit service. Part of the challenges among others were lack of collateral (15.6%), not-willing to take credit through group formation (22.1%) and fear of MFIs' higher interest rates (20.8%) and other problems (11.7%). Therefore, government need to devise supportive mechanism for the poor to curb the mentioned problems and to make MFI credit service accessible for the poor. For example, government can allocate subsidizing budget for MFI to share the higher interest payments, and allotting loan reserves for people who are capable of engaging in income-generating activities but deprived of meeting requirement for credit.

Above forty percent of the respondents were negatively influenced by lack of marketing premises. Hence, the study indicated that ownership was one of the determinate factors of microenterprises' performance enhancement. Unsatisfactory work premise facilitation was found from Dessie city administration, basically due to policy aspect, which demand group enterprise (while all of the ES

participants preferred individual basis business), and to work on manufacturing (while still the food insecure individuals were striving at IGA level). Hence, government should devise flexibility on its policy to responsively respond for the most in need citizens.

All the study samples, 100%, responded that the monitoring and coaching service provided to them were highly essential to determine their overall achievement on the ES program participation and business performance. Hence, systematic, empowering and intensive monitoring support should be in place, particularly in the establishment stage of microenterprises operation.

The effectiveness of the UHANFS project's relied also on the capacity and commitment of implementing government structures. So, any ES interventions must ensure active participation of all relevant stakeholders, creating joint partnership and building capacity to administer services regularly and reliably.

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Appendices:

Appendix 1: Interview Questionnaire

Preamble:

- This questionnaire is intended for academic research purpose. Its Objective of interviewing is to collect data from ES participants of UHANFSP on its contribution on the lives of the project participants and the change brought on their household food security status. The lesson gained will be shared to enhance implementation performance of further similar projects.
- Names of the respondent will not be recorded on the response collection sheet and the information obtained will be due confidential. So you are kindly requested for your willingness to provide genuine answers for the questions. You are also advised to weight the questions only with respect to your own scenarios.

1. Personal and family data:

Questionnaire Number: _____

Sub-city or Kebele: _____

Name of VSLA the respondent participating: _____

1.1 Registration year into ES: 1) August 2012 (1st batch) 2) Aug 2013 (2nd batch)

1.2 Sex: 1) Male 2) Female

1.3 Age of respondent: _____

1.4 Marital status: 1) Unmarried/single 2) Married 3) Divorced 4) Widowed

1.5 Number of household members by age composition, including the ESP.

0 - 14

> 14 – 64

> 64

- 1.6 Education level of the ESP: 1) Illiterate 2) Read & write 3) Grade 1-4
 4) Grade 5-8 5) Grade 9-12 6) Higher Education holder

2. Employment Information

2.1 Are you currently running business? 1) Yes 2) No *[If No – go to Qn 10]*

2.2 If yes, what is/are the type(s) of business(s) you are operating?

Write the option number [1st] _____, [2nd] _____ and [3rd] _____.

Petty trade = 1	Dry food processing = 10
Sheep and goat fattening = 2	Cooked food/drinks = 11
Poultry = 3	Hand crafts (carpentry, masonry, steel worker ...) = 12
Livestock fattening = 4	Garment, embroidery, weaving...= 13
Dairy farming = 5	Beauty salon, barber = 14
Vegetable gardening = 6	Sale clothes, shoes, and used items = 15
Fruit and vegetable retailing = 7	Transport = 16
Grain trade = 8	Industrial products retailing = 17
Injera selling = 9	Others = 18

2.3 For how many years have you been operating business? _____ years

2.4 What was your **working capital** at your business **start** or at the ES participation time?

_____ birr

2.5 What is the estimate of the asset you had at your business **start** or at the ES participation

time (furniture, utensil, equipment etc? _____ birr

2.6 How much is reached your **current** working capital? _____ birr

2.7 What is the estimate, in birr, of the **asset you currently** owned for your business (furniture, utensil, equipment [*stoves, machines, hand tools...*], refrigerator, etc? _____ birr

2.8 What is your **current** monthly income/**profit**/ from your business? _____ birr

2.9 Now, as you compared your business status from your start or from ES participation time:

- 1) Highly improved 2) Slightly improved 3) No change 4) Declined 5) Stopped

2.10 If you are **not** currently running business, had you run any business experience before?

- 1) Yes 2) No

2.11 If yes, how many years of you had experience? _____ years

2.12 Why did you stop your business? 1)Health problem 2) Shortfall of working capital 3) Business not profitable 4) Work/selling place lack 5) Others (specify)

3. Factors that influence success of business operation /objective 3/

3.1 How do you rate the overall **relevance** and **applicability** of the trainings you received for your business operation?

- 1) Very High 2) High 3) Medium 4) Low 5) Very Low

3.2 The trainings I attended was corner stone to boost my business to my current status.

- 1) Strongly agree 2) Agree 3) Not Sure 4) Disagree 5) Strongly Disagree

3.3 Who selected the type of business for you?

- 1) Myself 2) My spouse 3) ES project staffs 4) Other colleagues/relatives

3.4 Did you received orientation/training on how to select feasible business type to operate?

- 1) Yes 2) No

3.5 Selection of feasible and profitable business type was determinant step for my successfulness in business running? 1) Strongly agree 2) Agree 3) Not Sure 4) Disagree 5) Strongly Disagree

3.6 How do you rate availability of market (customers or clients) to receive your products or services that you are supplying?
1) High 2) Medium 3) Low

3.7 How frequently you faced loss/shortfall/ due to lack of market to fully sell your products and services you delivered?
1) Mostly 2) Sometimes 3) Not at all

3.8 I am limited by lack of market although I have the capacity to produce/supply more than I do now?
1) Yes 2) Partially 3) not at all (market is not problem for me)

3.9 Did you faced discrimination or lack of interest to buy your products and services due to your HIV positive status? Steadiness
1) Yes 2) No

3.10 Had you changed your business type before due to lack of market for being PLHIV?
1) Yes 2) No

3.11 On what house ownership condition are you living in?
1) Own 2) Government 3) Rented Private 4) As dependent in others' house

3.12 (If the answer is 3 or 4) – What challenges did you faced on your business as living in rent?
1) Frequent house change affected my business 2) Paying higher fee for rent
3) others: _____ 4) I didn't faced any problem

3.13 Generally, lacking living house ownership critically affected the growth of my business.

- 1) Strongly agree 2) Agree 3) Not Sure 4) Disagree 5) Strongly Disagree

3.14 (If living in own gov't house) – My living house ownership position enabled me to improve my business performance.

- 1) Strongly agree 2) Agree 3) Not Sure 4) Disagree 5) Strongly Disagree

3.15 Where are you working/selling your business/enterprise?

- 1) In living house 2) In separate shop/place 3) Both in living house and separate market place

3.16 What is the owner ship condition of your trading house or place?

- 1) Own house 2) Rented in government's house 3) Rented Private house 4) In market place 5) Within homestead and road side

3.17 Have you ever faced problem due to lack of own marketing house or place?

- 1) Yes 2) No

3.18 If the answer is 'yes', what problems had you faced?

- 1) I missed my customers due to frequent shift of address 2) Incompatibility of the changed market place for my type of enterprise 3) Higher fee for rent retarded the growth potential of my business 4) Difficulty to get trade license 5) Others

3.19 How much saving, per month, you made when you had started participation in VSLA? _____

3.20 Amount of current saving, per month, in your VSLA? _____

3.21 How much birr did you saved in your VSLA in the past six months? _____

3.22 Amount saved in bank, *Iqub* and house in the past six months? _____

3.23 In the past six months, how much outstanding loan you **provided** to other person? _____

3.24 In the past six months, how much outstanding loan you **received** from bank or individuals?

3.25 In the past three years, amount of remittance you received from relatives, in cash and/or estimation of in kind? _____

3.26 Participation into VSLA's saving and loan receipt scheme was an important factor to improve my business?

1) Strongly agree 2) Agree 3) Not Sure 4) Disagree 5) Strongly Disagree

3.27 Was there financial provision either to start or expand business from the ES project?

1) Yes 2) No

3.28 If the answer is yes, how much money did you received so far? _____

3.29 Do you think will you achieve the current business performance status if the support was not in place?

1) Yes, I will Achieve 2) I might achieve, but will took longer time 3) No, I will not achieve

3.30 Had you received continuous coaching and monitoring assistance on your business from project staffs and community facilitators?

1) Yes 2) No

3.31 How do you rate the contribution of the monitoring guidance?

1) Very Important 2) Important 3) Not Sure 4) Less Important 5) Not Important as all

3.32 Have you the experience of receiving credit from MFIs for business operation?

1) Yes 2) No

3.33 *If Yes*, what was the source for the credit?

- 1) MFIs (ACSI) 2) Formal Banks

3.34 Did you faced any problems upon getting the credit service?

- 1) Yes 2) No

3.35 What challenges and limitations did you experienced?

- 1) Fear of taking loan or fear of inability to repay 2) No access to MFI credit 3) Lack of collateral 4) Not willing to take grouped-loan 5) Fear of higher interest rate 6) Other _____

3.36 Did you received credit from private lenders for high interest rate?

- 1) Yes 2) No

3.37 *If Yes*, why?

- 1) Inability to get credit from MFIs or banks 2) Other _____

3.38 Do you believe credit availability and receipt from MFIs is highly determinant to expand already started business?

- 1) Strongly agree 2) Agree 3) Not Sure 4) Disagree 5) Strongly Disagree

4. Expenditure, Saving and Loan Questions

4.1 Expenditure

	a) Expenditure in the last 30 days	Estimated expenditure in the last 30 days (ETB)
1	Grain (teff, maize, rice, sorghum, wheat, wheat flour, pasta, macaroni, etc.)	
2	Pulses (lentil, peas, beans, chickpea, shiro, etc)	

3	Meat/Fish	
4	Vegetables (potato, cabbage, carrot, tomato, spinach, pumpkin, etc.)	
5	Fruits (banana, mango, orange, pineapple, apple, etc)	
6	Cooked food/Dining out (restaurant food, bread, cake, biscuits, sandwich, etc.)	
7	Drinks (soft drinks, juice, bottled water, tea, coffee, etc)	
8	Milk (fresh milk, powdered milk, cheese, yogurt, etc)	
9	Egg	
10	Oil, butter, and ghee	
11	Sugar, salt and spices (including <i>berbere</i>)	
12	Fire wood, charcoal Kerosene, dung	
13	Alcohol, chat, cigarettes	
14	Soap and other sanitary items	
15	Cosmetics and other (perfume, beauty salon, lotions, cream, shampoo, etc)	
16	Milling	
17	Transport	
18	Utilities (electricity, water, telephone including mobile charging)	

	b) Expenditure, in the last six months	Estimated expenditure in the last 6 months (ETB)
19	Health care (medical examination, laboratory, medication, etc)	
20	Education (registration fee, school fee, text books, stationery, etc.).	
21	Readymade garments (children and adult clothes, socks, school uniform, towel, scarf, underwear, etc.)	
22	Footwear (leather, plastic, canvas, sport shoes, sandal, etc. for children and adults)	
23	Household use textiles (curtain, bedcover, bed sheet, blanket, table cover, mattresses, etc.)	
24	Remittances to others, gifts and ceremonies (birthday, wedding, funeral, religious festivals, etc.)	
25	Cooking equipment (stove, cooking pot, kitchen utensils, etc.).	
26	Household durables (TV, radio, camera, tape, sofa, bed, refrigerator, etc.)	
27	Personal articles (jewelry, purses, bag, mobile phone, umbrella, belt, etc.)	

28	House rent (actual and imputed), house maintenance and improvements, and painting	
29	Recreation and leisure (theater, film, book, newspapers, children recreation sites, etc.)	
30	Other expenditure – specify	

4.2 Saving and Loan

SN	1 Assets purchased for the enterprise or household purposes after joining the ES scheme	Current value (ETB)
----	---	---------------------

1. Chicken
2. Goat/Sheep
3. Cattle
4. Machinery, equipment, and tools
5. Jewelry
6. Land/ Shop/ House
7. Household equipment
8. Grain (refers to the amount the individual bought and kept for business purpose; i. e. to sell it during periods of high price)
9. Others (specify)

2 How much cash saving do you have at current time?	Amount (ETB) Birr
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VSLA (the amount the person saved in the VSLA until the time of interview)

At hand or at home

Bank

Microfinance

Iqqub (the amount the person contributed in the Iqqub until the time of interview)

On loan to other person

4.3 Loan

	Source of Loan	VSLA	MFI	Individuals	Bank	Others (specify)	Total
1	Total amount of loan borrowed						
2	Total amount of loan repaid						
3	Total amount of outstanding (unpaid) loan						

5. Food consumption score –questions

Core Food Security Module Questions and Answer Categories		How often in last 12 months?
1.	(I/We) worried whether (my/our) food would run out before (I/we) got money to buy more.	Often true= 0
		Sometimes true=1
		Never true=2
2.	The food that (I/we) bought just didn't last, and (I/we) didn't have money to get more.	Often true=0
		Sometimes true=1
		Never true=2
3.	(I/we) couldn't afford to eat balanced meals.	Often true=0
		Sometimes true=1
		Never true=2
4.	(I/we) relied on only a few kinds of low-cost food to feed (my/our child/the children) because (I was/we were) running out of money to buy food.	Often true=0
		Sometimes true=1
		Never true=2
5.	Did (you/you or other adults in your household) ever cut the size of your meals or skip meals because there wasn't enough money for food?	Yes=1
		No=2
6.		Often true=0

	(I/we) couldn't feed (my/our child/the children) a balanced meal, because (I/we) couldn't afford that.	Sometimes true=1
		Never true=2
7.	Did you ever eat less than you felt you should because there wasn't enough money for food?	Yes=1
		No=2
8.	How often did (you/you or other adults in your household) cut the size of your meals or skip meals because there wasn't enough money for food?	Only 1-2 months=0
		Some but not every month=1
		Almost every month=1
9.	(My/Our child was/The children were) not eating enough because (I/we) just couldn't afford enough food.	Sometimes true=1
		Never true=2
10.	Were you ever hungry but didn't eat because you couldn't afford enough food?	Yes=1
		No=2
11.	Did you lose weight because you didn't have enough money for food?	Yes=1
		No=2
12.	Did you ever cut the size of (your child's/any of the children's) meals because there wasn't enough money for food?	Yes=1
		No=2
13.	Did (you/you or other adults in your household) ever not eat for a whole day because there wasn't enough money for food?	Yes=1
		No=2
14.	(Was your child/Were the children) ever hungry but you just couldn't afford more food?	Yes=1
		No=2
15.	How often did (you or other adults in your household) not eat for a whole day because there wasn't enough money for food?	Almost every month=0
		Some but not every month=1

		Only 1-2 months=2
16.	Did (your child/any of the children) ever skip a meal because there wasn't enough money for food?	Yes=1
		No=2
17.	How often did (your child/any of the children) skip a meal because there wasn't enough money for food?	Almost every month=0
		Some but not every month=1
		Only 1-2 months=2
18.	Did (your child/any of the children) ever not eat for a whole day because there wasn't enough money for food?	Yes=1
		No=2

Appendix 2: Interview Schedule

2.1 Focus Group Discussion Guide

1. How long you served as ES facilitator at community volunteer basis
2. Did you received adequate trainings to capacitate you to manage your assignment?
3. Can you tell me the number of ESPs and VSLAs under your follow-up?
4. What is your role/activities you have been performing under the UHANFS project's ES intervention?
5. What challenges were your respective ESPs faced?
6. What solution provided for their problems?
7. How do you evaluate the performance of the ESPs and VSLAs change as detect it from their objectives?
8. Despite the challenges faced, there are improvement on their livelihoods and food security and poverty status. How it happened?
9. What do you think on what should be done further to better assist such ESPs in order to expand their business by government and any other actors?

2.2 Key Informant Interview Guide

Name: _____

Position: _____

Office Name: _____

Date: _____

Questions:

1. What activities or services your office/department is providing for individuals involved on microenterprises / IGAs running?
2. What are major challenges those individuals are facing either to start or expand business?
3. What are the opportunities (good conditions) in the current Policy framework for MSEs - towards supporting food insecure individuals engaged on microenterprises/IGAs?
4. What limitations (areas to improve) on the policy in order to make the service provision more responsive and effective?
5. As institution, with which offices/departments your office have coordination and linkage to support those involved on microenterprises / IGAs running?

S/No.	Name of Office/Department	Why or for what?
-------	---------------------------	------------------
6. What should be done to strengthen institutional linkage and coordination for better performance?

Appendix 3: Demographic Characteristics of Study Households

Category		Registration year into ES					
		First batch ESP		Second batch ESP		Total	
		Count	%	Count	%	Count	%
Sex of the ESP	Male	6	15.79	12	31.58	18	23.40
	Female	32	84.21	27	69.23	59	76.60
	Total	38	100.00	39	100.00	77	100.00
Age of ESPs	Below 25	3	7.90	1	2.56	4	5.20
	25 - 40	21	55.30	21	53.85	42	54.50
	40 - 55	12	31.60	13	33.33	25	32.50
	Above 55	2	5.30	4	10.26	7.8	7.80
	Total	38	100.00	39	100.00	77	100.00
Marital status of ESPs	Married	4	10.53	5	12.82	9	11.69
	Single	10	26.32	14	35.90	24	31.17
	Divorced	9	23.68	8	20.51	17	22.08
	Widowed	15	39.47	12	30.77	27	35.06
	Total	38	100.00	39	100.00	77	100.00
Family size	1 - 2	6	15.79	4	10.26	10	12.99
	3 - 4	19	50.00	25	64.10	44	57.14
	5 - 6	12	31.58	9	23.08	21	27.27
	7 - 8	0	-	1	2.56	1	1.30
	9 - 10	1	2.63	0	-	1	1.30
	Total	38	100.00	39	100.00	77	100.00
Education level	Illiterate	10	26.32	14	35.90	24	31.17
	Read & Write	4	10.53	3	7.69	7	9.09
	Grade 1 - 4	2	5.26	4	10.26	6	7.79
	Grade 5 - 8	14	36.84	13	33.33	27	35.06
	Grade 9 - 12	8	21.05	5	12.82	13	16.88
	Total	38	100.00	39	100.00	77	100.00
Dependent HH members	0	13	34.21	13	33.33	26	33.77
	1	16	42.11	16	41.03	32	41.56
	2	7	18.42	8	20.51	15	19.48
	3	2	5.26	2	5.13	4	5.19
	Total	38	100.00	39	100.00	77	100.00

Appendix 4: Tables of factors that determine performance microenterprises

Number of HH members between age of 15 and 64 VS Microenterprise Performance: How do you Rate the current Performance Status of your business as compared to your ES participation time or start up?

Number of HH members between age of 15 and 64, including the ESP	ME Performance: How do you Rate the current Performance Status of your business as compared to your ES participation time or start up?				Total
	Highly Improved	Slightly Improved	No Change	Declined	
1	5	3	1	0	9
2	10	10	0	1	21
3	13	12	2	0	27
4	7	5	0	0	12
5	2	3	0	1	6
6	1	1	0	0	2
Total	38	34	3	2	77

Training Relevance and Applicability that you received for your business operation?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Very High	61	79.2	79.2	79.2
High	15	19.5	19.5	98.7
Medium	1	1.3	1.3	100.0
Total	77	100.0	100.0	

Trainings I attended was corner stone to boost my business to my current status.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Agree	58	75.3	75.3	75.3
Agree	19	24.7	24.7	100.0
Total	77	100.0	100.0	

Determinance of VSLA participation is vital to improve my business:

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Agree	70	90.9	90.9	90.9
Agree	7	9.1	9.1	100.0
Total	77	100.0	100.0	

Financial (MF) provision determinance to achieve your current business performance status: Qn: Will you achieve your current performance if the financial support not in place?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes, I will achieve	29	37.7	37.7	37.7
I might achieve, but will took longer time	5	6.5	6.5	44.2
No, I will not achieve	43	55.8	55.8	100.0
Total	77	100.0	100.0	

Credit from MFIs is essential to expand already started business:

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Agree	48	62.3	62.3	62.3
Agree	29	37.7	37.7	100.0
Total	77	100.0	100.0	

Market availability, to buy supply was rated as:

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid High	53	68.8	68.8	68.8
Medium	22	28.6	28.6	97.4
Low	2	2.6	2.6	100.0
Total	77	100.0	100.0	

Selection of Business type was determinant step for my successfulness in business running?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Agree	60	77.9	77.9	77.9
Agree	17	22.1	22.1	100.0
Total	77	100.0	100.0	

Loss: How frequently you faced loss due to lack of market to fully sell your supply?

	Frequency	Percent	Valid Percent	Cumulative Percent
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Valid	Mostly	1	1.3	1.3	1.3
	Sometimes	25	32.5	32.5	33.8
	Not at all	51	66.2	66.2	100.0
	Total	77	100.0	100.0	

Discrimination or lack of interest to buy your products and services due to your HIV positive status?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	3	3.9	3.9	3.9
	No	74	96.1	96.1	100.0
	Total	77	100.0	100.0	

Change of business type happened before due to lack of market for being PLHIV?

		Frequency	Percent	Valid Percent	Cumulative Percent
	Yes	2	2.6	2.6	2.6
	No	75	97.4	97.4	100.0
	Total	77	100.0	100.0	

House ownership condition for living.....?	Frequency	Percent	Cumulative Percent
Own	7	9.1	9.1
Government	42	54.5	63.6
Rented Private	26	33.8	97.4
Dependent in others' house	2	2.6	100.0
Total	77	100.0	

House ownership for living was determinant for me to improve my business performance.

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Agree	24	31.2	31.2	31.2
Agree	46	59.7	59.7	90.9
Not Sure	4	5.2	5.2	96.1
Disagree	3	3.9	3.9	100.0
Total	77	100.0	100.0	

	Frequency	Percent	Valid Percent	Cumulative Percent
Own house	5	6.5	6.5	6.5
Rented in Government's house	31	40.3	40.3	46.8

Rented in private house	11	14.3	14.3	61.0
In Market place	24	31.2	31.2	92.2
Within Homestead and Road side	6	7.8	7.8	100.0
Total	77	100.0	100.0	

From 24 ESPs that faced problem due to lack of marketing house or place, problems faced are the following:

Problem types faced for working on rented house:

	Frequency	Percent	Cumulative Percent
I missed my customers due to frequent shift of address	12	50.0	50.0
Incompatibility of the changed market place	6	25.0	75.0
Higher fee for rent retarded the growth of my business	4	16.7	91.7
Other problems	2	8.3	100.0
Total	24	100.0	

MF provision determinance to achieve your current business performance status:

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes, I will achieve	29	37.7	37.7	37.7
I might achieve, but will took longer time	5	6.5	6.5	44.2
No, I will not achieve	43	55.8	55.8	100.0
Total	77	100.0	100.0	

Receipt of continuous coaching and monitoring assistance on business?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	77	100.0	100.0	100.0

Appendix 5: Proposal of the study

Economic Strengthening Intervention

For Food Security and Poverty Reduction:

The Case of Urban HIV/AIDS and Nutrition and Food Security Project in Dessie

1. Introduction

1.1 Background

Food security is a critical problem for Ethiopian populations, both in urban and rural areas. There are 8.3 million chronically food insecure households in 319 woredas of Ethiopia (FDRE-NSPP, 2012). According to the 2010/11 household income, consumption and expenditure survey (HICES), the proportion of poor people in the country is estimated to be 29.6% in 2010/11 (FRDE-FSS, 2012). The percentage of the population under the National Poverty Line has fallen from 44.2% in 1999 to 29.6% in 2010, with the rural poverty rate falling from 45.4% to 30.4% over the same period. Ethiopia has also made significant progress in reducing hunger, with a 39.24% reduction in the Global Hunger Index from 1990 to 2013 (FDRE-NSPP, 2012).

Urban HIV and AIDS Nutrition and Food Security (UHANFS) Project is PEPFAR⁷ funded investment implemented under the overall responsibility of United Nations World Food Programme (UN-WFP) throughout Ethiopia in nine regions and two city administrations, where Amhara is one of the nine. In Amhara region, the project commenced implementation in seven towns from June 2012 onwards; while having a five years intervention scheme.

⁷ PEPFAR: US President's Emergency Plan For Aids Relief

The UHANFSP has two major programs to address the nutrition and food security problems of the target beneficiaries who are infected and affected by HIV/AIDS known as People Living with HIV/AIDS (PLHIV). The first program was *Nutrition and Social Safety Net (NSSN)* which focused to meet the objectives of improving Anti-Retroviral Treatment (ART) treatment retention and adherence; eliminating the chance of mother to child HIV transmissions; increasing school enrollment and attendance; reduce the rate of low birth weight and smoothen house hold food consumptions. The second program was Economic Strengthening (ES) which was dedicated to capacitate adult PLHIVs to engage into Income Generating Activities (IGA) or microenterprises for their livelihood. Those PLHIVs who graduated from their nutrition and social safety net services follow up then entitled for the ES. The ES component of the project had an ultimate objective of attaining food security sustainably and reducing the effect of HIV/AIDS on health through building capability to generate income base for the economically poor beneficiaries.

The NSSN component of the project has been addressing larger number of PLHIV groups such as pregnant and lactating mothers attending Preventing Mother-To-Child Transmission (PMTCT) services, adult PLHIVs and Orphan and vulnerable Children (OVC). Its major activities were mainly focused on: preliminary nutrition assessment, counseling and treatment through therapeutic food; bimonthly beneficiary discussions on health and nutrition related matters; referral linkage; home based care for bedridden PLHIVs; social mobilization on selected and sensitive matters, such as stigma and discrimination; condom promotion and distribution; and monthly nutritious food redemptions.

1.2 Statement of the problem

Investing in social protection reduces the vulnerabilities of poor people to external shocks such as aggregate income shocks, instability in the price of essential commodities, and the effect of climate change. Financial resources that spent on social protection re-circulate in the economy enhancing demand and supply, thus, contributing to growth. Effective social protection contributes to social cohesion resulting in accelerated achievement of socio-economic development including improved security, sustained peace and greater social stability (FDRE-NSPP, 2012).

Urban poverty is a widely and deep-rooted problem in both large and small cities of Ethiopia. Due to higher unemployment rate, 8.5%, absence of productive asset including land and the nature of poverty in urban areas, economic strengthening interventions are paramount to attain food security of the needy population. More specifically, the recently declared FDRE's Urban Productive Safety Net Program (UPSNP) document clearly stated "Focus on people living below the poverty line" and "livelihood support aims to diversify and improve household level income in the long run" as core principles (FDRE-UPSNP, 2015).

Donors and practitioners recognize the need to extend economic and livelihood support to individuals, families, and communities affected by HIV/AIDS. Increasingly, multi-sectoral programs that can integrate health, economic strengthening, and educational and social protection services are being tested and implemented. Yet knowledge of what works, for whom and why, is still limited. There is little cross-fertilization of best practices and lessons across different sectors, including health, economic development, and social protection (Stene et al, 2009).

Therefore, the study would have substantial importance on identifying changes brought on the food security and poverty status through the complementary assessment of determinant factors that

influence economic strengthening program intervened for urban based needy PLHIVs. It was also aimed to get experience and lessons through assessment of an ongoing ES program implementation.

1.3 Objective of the study

General Objective: To assess Effectiveness of Economic Strengthening Intervention towards achieving food security and poverty reduction of UHANFS project participants living in Dessie city in Amhara region in Ethiopia.

Specific objectives:

- iv. To assess changes attained on the food security status of ES participant households supported by the UHANFS project.
- v. To assess the poverty status of ES participant household members targeted under UHANFS project.
- vi. To overview major determinant factors that influence performance of microenterprises operated by the ES participants.

1.4 Significance of the study

The study performed on one of the four important pillars⁸ of social protection policy of Ethiopia, which is *livelihood and employment schemes*. On top of this, Urban Productive Safety Net Program

⁸ The four pillars of the Federal Democratic Republic of Ethiopia's Social Protection Policy (2012) were: Social safety net, Livelihood and employment schemes, Social Insurance, and addressing inequalities of access to basic services.

(UPSNP) that declared recently was expected for enforcement into action from September 2016 onwards in eleven selected big towns as pilot program; where, Dessie was among the piloted eleven. This nationwide and huge resource consuming scheme, sponsored by World Bank, was focused to combat urban poverty.

Hence, the study considered that assessing the status of food security, poverty and microenterprises would have contribution on documenting lesson and leaving its drop to the continuous stream of knowledge building on the area of ES interventions.

In addition, the researcher identified that there was no similar research done in Ethiopia on the study topic before; so that the study could be considered as a forerunner to serve as reference and also might initiate further documentation. Findings of the study on the ES intervention towards household food security attainment in urban areas would be shared to government, non-government and other civil societies that had been taking commitment to curb food security and livelihood issues Therefore, the researched become convinced on the value of the theme to work on for the fulfillment of the academic requirement.

1.5 Research questions

The study tracked to answer for the following research questions.

- ☞ What change achieved on the food security status of households' supported by ES intervention under UHANFS project in Dessie?
- ☞ What is the poverty status of individuals within households that supported by the ES intervention in Dessie?
- ☞ What are major determinant factors that influence performance microenterprises which ultimately determine effectiveness of the ES programs?

1.6 Scope of the study

UHANFS project, the focus of the study, has been in implementation in seven towns of Amhara; however, due to resource (mainly time and money) and accessibility limitation the researcher limited the study to one of the seven towns, namely Dessie. In addition, despite the project had had two major programs, the study entirely focused on the ES component of the project. Hence, Economic Strengthening (ES) project participants of Dessie city became universe for the study.

1.7 Limitations of the study

The research exercise relied on the response and opinions of ES participants with complement key informants information, but not included non-project participants for many reasons. Firstly, the PLHIVs are targeted into the program through targeting criteria by kebele level targeting bodies with support of PLHIV associations and volunteers; secondly, it was difficult to find and approach any PLHIVs in Dessie for the assessment due to stigma and openness issues; thirdly, trends in the study area indicated lack of willingness from PLHIV individuals to get consent for such interviews; and finally, there was no baseline information for the non-ES participant PLHIVs to compare with their previous baseline food security status.

In addition, there was no similar kind of study undertaken on the topic and in the area that made it difficult to validate the study findings with some other findings.

1.8 Organization of Research Report

This thesis report organized into five chapters to comprehensively present the research work. Up until here the first chapter has introduced the research. The second chapter comprised review of literature. Chapter three described study area and methodology applied to track the research. The fourth chapter pronounced study results backed up with discussion and interpretation on the findings. Chapter five drawn conclusion and recommendation points. In the end, particulars of reference of materials used (using Harvard system), tables, questionnaire, interview schedule, the project proposal and advisor's CV were annexed as appendices.

2. Literature review

2.1 Working Definitions

Food security also defined as *access by all people at all times to enough food for an active and healthy life* (AIN, 1990). Here it would be understandable that food security includes at a minimum the readily availability of nutritionally adequate and safe foods, and also secure ability to acquire acceptable foods in an acceptable ways for example, without resorting to emergency food supplies, scavenging, stealing, or other coping strategies (Bickel et al, 2000).

Related to small enterprises (formal and informal), Poverty is a condition in which people lack satisfactory material resources (food, shelter, clothing, housing); are unable to access basic services (health, education, water, sanitation); and are constrained in their ability to exercise rights, share power and lend their voices to the institutions and processes which affect the social, economic and political environments in which they live and work (Vandenberg, 2006).

Economic Strengthening (ES) refers to actions taken by governments, donors and implementers to improve livelihoods' of Individuals or households. Household Economic strengthening (HES) comprises a portfolio of interventions to reduce the economic vulnerability of families and empower them to provide for the essential needs of their members they care for, rather than relying on external assistance (PEPFAR, 2011).

Livelihoods: refers to the capabilities, assets and activities required for a means of living. Confusion can arise as the term livelihoods is also used colloquially to refer to economic strengthening interventions, e.g., “livelihoods program (Chambers and Conway, 1992).

ES is basically an intervention intended to assist individuals to be capable to run their own or group IGA in order to generate their own income for living. It can be designed for varied poor societal groups (like PLHIVs, OVC, youths, women, and others) to escape from the clutch of poverty (LIFT, 2011). ES, in Ethiopian context, institutionally lies under the big umbrella of Micro and Small Enterprises Development (MSED) organized at different administrative hierarchies – from Federal to Kebele.

2.1 MSEs and IGA

According to the Ethiopia's Federal Micro and Small Enterprises Development Agency (FMSDA) Strategy bulletin that published in 2011, the working definition for Micro enterprises and Small enterprises are stated as:

Micro Enterprises: A micro enterprise in the industrial sector (manufacturing, construction and mining) is one which operates with up to five people including the owner and/or has total assets not exceeding Birr 100,000 (approx. US\$5,000). Similarly, for activities in the service sector (retailer, transport, hotel, tourism, ICT and maintenance), a micro enterprise is one which operates with up to five people including the owner and/or has total assets not exceeding Birr 50,000 (approx. US\$2,500).

Small Enterprises: A small enterprise in the industrial sector is one which operates with between 6 to 30 persons and/or has paid up capital or total assets not exceeding Birr 1.5 million. Similarly, a small service sector enterprise is one that has between 6 and 30 persons and/or has total assets or paid up capital of Birr 500,000.

Income Generating Activities (IGA): are small-scale ventures that create an income source to target beneficiaries. These are lesser in size than from MSEs (FHAPCO, 2013). The term “IGA” is not one used often in the microenterprise development sector literature. The use of the concept of IGA was generally dropped because it failed to capture the enterprise aspects and market-driven nature of business endeavors. The term was often associated with programs that put individuals or groups to work in supply or production-driven programs. LIFT⁹ assessment team encourages USAID/PEPFAR to consider adopting the term micro- and small enterprise (MSE) to professionalize and re-orient this intervention towards the market (LIFT, 2011).

The micro and small business sector is recognized as an integral component of economic development and a crucial element in the effort to lift people out of poverty. The dynamic role of MSEs in developing countries considered as engines through which the growth objectives of developing countries can be attained has long been recognized.

3. Research methodology

3.1 Description of the study area

⁹ LIFT: Livelihood and Food Security Technical Assistance

The Economic strengthening program have been launched in Amhara region in seven towns within six administrative zones¹⁰ since June 2012. The towns are selected for the UHANFS project operation for various reasons, mainly for their higher HIV/AIDS prevalence and food insecurity. The universe of this study will be Dessie town which is purposefully selected by the researcher - for being a living and working area that is affordable for study execution with respect to time, resource and access to information.

Dessie found in north-central Ethiopia within Amhara region in South Wollo zone that pin-pointed at a latitude of 11° 8' N and longitude of 39° 38' E. The town is located 400 km. away from Addis Ababa to the north direction along the road to Mekele. It is surrounded by a chain of mountains, which is claimed to be the main reason affecting its expansion and development. The town placed at an altitude between 2,400 and 3,200 metres above sea level (masl), while having an average 2,600 altitude with predominantly *Dega* (62%) and *Woinadega* (38%) climate. This climatic condition blessed Dessie to get 1100 milli-meters average annual rainfall. The town conquered in 1893 G.C. by King Michael (DFEDD, 2015).

Dessie is the capital city of South Wollo Administrative Zone, which is the second biggest city of Amhara next to Gondar from 169 urban centers. The town is labeled as metro-politan city for being large in terms of population size and socio-economic situation. For administration purpose, Dessie is classified into ten urban kebeles (or sub-cities) and six rural kebeles. The main economic sectors for the city's occupants, mainly, are trade (includes both service and production delivery), employment (in government, private and other organizations), and urban agriculture (AHB, 2008).

¹⁰ UHANFS project towns and their respective zones are: Gondar (North Gondar), Bahir Dar (West Gojam), Debre Markos (East Gojam), Debre Berhan (North Shoa), Woldia (North Wollo) and Dessie and Kombolcha (South Wollo).

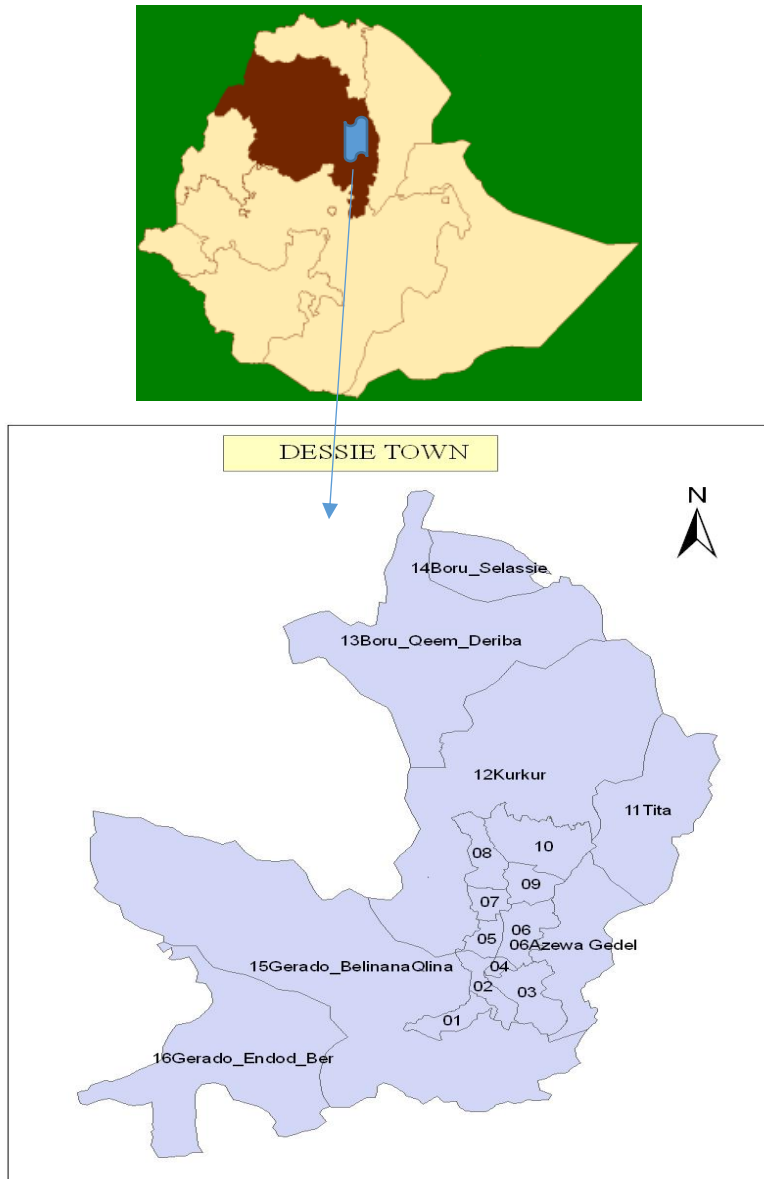


Figure 1: Map of Desse town

Based on the 2007 national census conducted by the Central Statistical Agency (CSA) of Ethiopia, Dessie city has a total population of 151,174, of whom 72,932 are men and 78,242 (51.76%) women. Out of this, 120,095 (79.44%) are urban inhabitants living in the town and the remaining part of the population is living at the rural kebeles of Dessie. Population projection of 2015

indicated that the total population showed increment to 203,095 where women comprise 116,093 (51.16%); whereas, 179,557 (88.41%) expected as being urban population (DFEDD, 2015).

According to Ethiopian CSA's Urban Population Projection Value of 2016, Dessie become 8th largest city in Ethiopia and the 3rd biggest one from Amhara region next to Gondar and Bahir Dar out of 169 urban centers. The town is labeled as metro-politan city for being large in terms of population size and socio-economic situation. Dessie is the capital city of South Wollo Administrative Zone and for administration purpose, the city is classified into ten urban sub-cities or kebeles and six rural kebeles. The main economic sectors for the city's occupants, mainly, are trade (includes both service and production delivery), employment (in government, private and other organizations), and urban agriculture (AED, 2008).

3.2 Study population

Since the inception of the ES project by World Food Programme (WFP), so far, four batches of ES participants were targeted and registered for ES intervention involvement from August of 2012, 2013, 2014 and 2015 onwards. The targeted food insecure PLHIVs have been expected to be food secured and graduated or terminated from the ES intervention after receiving intended support for three years through satisfactory project participation. Hence, those PLHIVs under the first and second years' participants that received the full package of the intended ES program by August 2015 and 2016 will become the universe of the study.

3.3 Sample, Sample size and Sampling technique

Yamana's (1967) formula will be applied to determine sample size for the study using its well-known formula that stated as: $n = N / [1 + N(e)^2]$

Where: n = required sample size; N = Number of people in the study population; e = allowable error or margin of error, which would be computed from confidence interval (C.I.) or confidence level as $1 - C.I.$

Typical confidence levels, for example, 80%, 90%, and 95%, can be used as confidence level for different research purposes (BRL, 2013). Accordingly, the study was administered at 90% (or 0.90) as confidence interval. That implies, “ e ” became $1.00 - 0.90 = 0.10$.

In order to carry-out the assessment, *systematic random sampling* method was administered for the reason that list of all the target population were available within the ten sub-cities of Dessie. This systematic sampling method was preferred over simple random sampling for its capability to provide a more even spread of the sample over the population (IGNOU, MRD-004, 2005).

List of active ES participants’ data will be obtained from the ES implementer office, Dessie Health Department, in order to select sample respondents using systematic random sampling method.

3.4 Type and sources of data

Qualitative and quantitative data will be collected for analysis that enable both to complement each other. Accordingly, the study will utilize both primary and secondary data, which will be qualitative and quantitative in nature.

3.4 Data collection

Secondary data will be collected from different sources such as unpublished documents (from the project and Dessie city administration concerned sectoral departments), statistical bulletins, journals, books and internet. Primary data will be gathered from sample study respondents by administering interview schedule, and from experts and officials through interviews with

respective Dessie's government offices, particularly TVED¹¹ and Health departments, and nongovernmental organizations operating in the town.

3.5 Data analysis

Quantitative data analysis:

Different data analysis methods will be deployed.

. Firstly, to study objective one of the study: 'food security status' will be the dependent variable and to be measured by Food Consumption Score (FCS) method. The FCS enabled to categorize weighed households into four food security status groups namely: food insecure with severe hunger, food insecure with moderate hunger, food insecure without hunger and food secured (Gary and Mark, 2000). In order to look for the changes attained, the assessed and computed food security status by the research, then, compared with baseline food security status assessment results that was carried out by the UHANFSP upon entry of the ES participants into the program by applying similar food consumption score.

. To study objective two: poverty will be the dependent variable. Then, households' annual income amount will be assessed to compute income amount per person per day as proxy, and then will be gauged against poverty line. Poverty line developed by World Bank and by considering up to date conversion for Ethiopia, the poverty status of the study samples will be analyzed.

. To study objective three: quantitative data will be assessed about opinions and attitudes from sampled respondents, in order to summarize and interpret using descriptive statistics method.

¹¹ TVED is Technical and Vocational and Enterprises Development Department.

Qualitative data:

Data obtained through interview schedules from FGDs and KI interviews, will be analyzed qualitatively. Then, the analysis will be done by synthesizing various opinions, attitudes and concepts collated from interviewees.

4 Chapterization of Thesis Report

The thesis report will have five chapters to comprehensively present the research work. Chapter one will provide brief introduction about the research. Chapter two will comprise literature review section of the study, which will point out working definition of variables and terminologies and also review works done on the areas of the study topic. Chapter three outlines research methodology which is inclusive of description of the study area, sampling technique, and data collection and analysis aspects. Chapter four will pronounce study results backed up with discussion and interpretation of the findings attained from sampled respondents against objectives, and variables – dependent and independent. Chapter five will wind-up the thesis report by forwarding summary, conclusion and recommendations. Finally, particulars of questionnaires, interview schedule, reference materials and appendixes will be annexed.

5 Work and Budget Plan

5.2 Work plan

The research will be conducted from March to September 2016.

Table 20: Time table for the study

Activities	Mar	Apr	May	July	Aug	Sept	Oct
Proposal submission and approval							
Literature review write up and approval							
Research Methodology write up and approval							
Developing data collection tools and approval							
Data collection and entry into SPSS							
Result and discussion write up and approval							
Summary, Conclusion and recommendation and approval							
Editing and Printing							
Submission							

5.2 Budget plan

Required budget to execute the study will be as indicated the below table.

Table 2: Required budget for the study

No	Material / Item	Unit	Quantity	Unit cost	Total cost (ETB)
1	Stationery costs:				
	Pen and note book	No.	10	30	300.00
	Duplicating cost (questionnaire and thesis report)	Pages	(80*15) + 300 = 1,500	0.75	1,125.00
	Binding cost	No.	2	150	300.00
2	Personal cost				
	Per diem for facilitators	No.	5*2 days	100	1,000
	Per diem for enumerators	No.	3 * 6 days	120	2,160
	Per diem for data decoder	No.	3 days	120	360
	Mobile card	No.	10	100	1000
3	Contingency	10 %			625
	Total cost				6,870.00

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Appendix 6: Advisor's Curriculum vitae

Bio data	Name: Mulugeta Taye (PHD, Associate Professor) Nationality: Ethiopian Sex and Marital Status: Male and Married
Address	Addis Ababa, Zone/subcity: Nefasilk/Lafto – Woreda 01 P.o.box 23352 Mobile: 0911-345728 Gmail: mulutaye45@gmail.com
Qualifications/degrees	a. Doctor of Philosophy (PhD) : Production Ecology and Resource Conservation, Wageningen University, the Netherlands b. Master of science in Agriculture (Horticulture), Alemaya University of Agriculture, Ethiopia c. Bachelor of science in Agriculture (Plant science), Addis Ababa University: Alemaya College of Agriculture, Ethiopia
Academic rank	PhD, Associate Professor (Hawassa University, Ethiopia)
Trainings (diploma, certificate)	<ul style="list-style-type: none">• Championship for change leadership training on food security, Kenya (Nairobi), (organizers: USAID and CAADP)• Horticulture production, processing and protection technology• Participatory Rural appraisal (PRA) Training (FARM AFRICA-Ethiopia),• International potato course: production, storage and seed technology , the Netherlands,• Recent development in potato technology for rural development in sub-Saharan Africa ,• Action research program on the improvement of peeper production SOS-Sahel• Modeling: Applying Innovation System Concept in Agricultural Research for Development (Haramaya University)

Employment	<ul style="list-style-type: none"> • Human resource management • Project management <p>-Educator, Researcher and consulting, Hawassa University (over 25 years), St Mary’s University (about four years)</p> <p>-Research and Publication, and Training coordinator: Hope College of Business, Science and Technology (since February 2015)</p>
Skill and Expertise	<p>Food crops production, food systems, rural development, production, processing and marketing of coffee, tea, vegetables, temperate and tropical fruits, vegetables, spices , tuber and root crops. Seed production, home gardening, post-harvest handling, seed system, , honey production and marketing, biodiversity, food security and livelihood, organic farming, ecophysiology, feeding crops, soil nutrients, organic agriculture, environment</p>
Office management	<p>-Head of Horticulture division, Awassa College of Agriculture</p> <p>-Coordinator of Horticulture, Research and Farm center, Awassa College of Agriculture</p> <p>-Head of Horticulture section: Plant Production and Dryland Farming department</p>
Thesis research advising	<p>-Research coordinator of Horticulture (Ground nut program) , Dryland Coordination Group (Norwegian group), Hawassa University</p> <p>Research and Publication, and Training coordinator: Hope College of Business, Science and Technology</p> <p>Advising over two hundred graduate students on development, food security, livelihood, microfinance, irrigation, cooperative, honey production and marketing, production, processing, quality and marketing of vegetables, tropical and temperate fruit crops, coffee, tea and spices; cassava production and cyanide, at Hwassa University, Addis Ababa University, and St Mary’s University</p>
Consultancy experiences	<p>Consulted several national and international institutions/organizations in several subjects, which some of them are:</p>

- At ILRI and African RISE: an assessment on highland fruit crops and vegetable production under the title: Understanding production and marketing constraints of vegetables and fruit crops across the value chain in the Ethiopian highlands: case study at Sinana, Mahoney and Debreberhan. Supervisor Dr Tilahun Amede ICRISAT-Principal Scientist and Country Representatives, Tel :251-911230135, (in the year 2014)
- CIP and USAID project: Evaluating the potato and sweet potato programs in north and south Ethiopia with HEDBEZ Business and Consultancy PLC. Project title: Tackling food insecurity and malnutrition through diversification: exploiting the potential of potato and sweet potato to reduce food insecurity and dependence on cereal in SNNPR and Tigray (in the year 2014).
- With SOS/SAHEL/Ethiopia- Establishing peeper value chain project in south region particularly in Gurage area. An action research program financed by smallholder livelihood Improvement project (SLIP of SOS/SAHEL).
- With SOS/SAHEL/Ethiopia- Establishing an extension manual on pepper production and processing. Financed by smallholder livelihood Improvement project (SLIP of SOS/SAHEL).
- With Dryland Coordination Group (DCG- Norway): Consulting a project entitled : Contributing to wealth creation and food safety to farmers by reducing yield loss and mycotoxin contaminations of ground nut in selected drylands of Ethiopia”.
- With Dryland Coordination Group (DCG- Norway): reviewing, and compiling a report entitled “Impact of Resettlement on the Livelihood, Food Security and Natural Resource Utilization in Ethiopia”
- Engaged in several out-reach and community services, which include:

Community services

- Several communities in Sidama/Hawassa, Woliyta on the production and protection of root and tuber crops: potato, *Plectranthus edulis*, enset, cassava, yam,
- Several farming communities on the production of groundnut in Eastern and Southern Ethiopia with the Dryland Coordination Group/ Norwegian Church Aid

- Several farming communities on the value Chain of pepper with SOS/Sahel at Hawassa/Sidama, and Gurage zone/Butagera,
- On the production of apple and olive crops at Debreberhan

Research Project leading

- Studies on agronomy and crop physiology of *Plectranths edulis* (Vatke) Agnew
- Studies on the growing and utilization of cassava plant, and its anti-nutritional factor: cyanide,

Publications:

- Tilahun Amede and Mulugeta Taye. 2015. Home garden assessment: System niches, production and marketing constraints and intensification barriers in the Ethiopian highlands, africa-rising.net , ICRISAT.
- MulugetaTaye, Lommen, W.J.M. ,Struik, P.C.(2013) Seasonal light interception, radiation use efficiency, growth and tuber production of the tuber crop *Plectranthusedulis*, European Journal of Agronomy 45:p. 153 - 164.
- MulugetaTaye, Lommen, W.J.M. ,Struik, P.C.(2012). Ontogeny of the tuber crop *Plectranthusedulis* (Lamiaceae) African Journal of Agricultural Research Vol. 7(30), pp. 4236-4249
- MulugetaTaye, Lommen, W.J.M. ,Struik, P.C. (2012).Effects of breaking seed tubers on yield components of the tuber crop *Plectranthus edulis*. Journal of Agricultural Science, Cambridge pp 1-13
- Moti Jaleta, Adugna Tolera, AnshaMoti Jaleta, Mekonnen Yohannes, Adugna Tolera, Mitiku Haile, Ansha Yesufe, Kindeya Geberehiwot, Kelemework Tafere, Yemane Gegziabher, and Mekonnen Teferi, Nigatu Regassa, Mulugeta Taye, Abiye Alemu and Kiros Meles Yesufe. 2011. Impact of Resettlement on the Livelihood, Food Security and Natural Resource Utilization in Ethiopia, GCOZA, Rapport No.65. Dryland Coordination group, Norway
- MulugetaTaye, Lommen, W.J.M. ,Struik, P.C. (2011).Effects of shoot tipping on development and yield of the tuber crop

Plectranthusedulis. Journal of Agricultural Science, Cambridge, 150:484-494.

- MulugetaTaye, Lommen, W.J.M.,Struik, P.C. (2007). Indigenous multiplication and production practices for the tuber crop, *Plectranthusedulis* in Chench and Wolaita, southern Ethiopia. Experimental Agriculture, 43: 381-400
- Gulelat Dessie and MulugetaTaye (2001) Microbial load and microflora of cassava (*Manihot esculenta*, Crantz) and effect of cassava juice on some food borne pathogens. The Journal of Food Technology in Africa, Vol. 6, No. 1, , pp. 21-24
- MulugetaTaye (2000) Some quality changes during storage of cassava roots. The Journal of Food Technology in Africa, 5 (2): 64-66.
- MulugetaTaye, and EskindirBiratu (1999).Effect of storage and utilization methods on the total cyanide content of two cassava cultivars. SINET, Ethiopian Journal of Sciences, 22(1) 55-656.
- Alemayehu Chala, Berhanu Abate, Mulugeta Taye, Abdi Mohammed, Tameru Alemu and Helge Skinnen..2014. (DCG Report No. 74). Opportunities and constraints of groundnut production in selected drylands of Ethiopia , Dryland coordination group, Norway
- Mulugeta T., Girma T., Lideta S., Shimeles A., Waga M., Kebede A., (2011) Peeper production, post-harvest and marketing, Manual. (with the help of SOS—SAHEL.
- MulugetaTaye (2000). Principles and Practices of Coffee and Tea production. Hawassa University, Institute of Plant and Horticultural Sciences.
- Mulugeta Taye (2010) Spices and herbs production and management, Hawassa University, College of Agriculture

- Mulugeta Taye (2010) Fruit crops production and management, Hawassa University, College of Agriculture
- MulugetaTaye (2009) Root and tuber crops production, Hawassa University, College of Agriculture

Editor:

Editor : International journal of biodiversity and
conservation, India

Reading materials

Reviewer: African journal of agricultural research, Uganda

Manuscript reviewing