COLLEGE OF DEVELOPMENT STUDIES

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HOUSEHOLDS MULTIDIMENSIONAL POVERTY ANALYSIS IN CASE OF URBAN PRODUCTIVE SAFETYNET PROGRAM BENEFICERIES IN ADDIS ABABA CITY

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DECLARATION

I, Samuel Eshete Desta, do here by declare to Addis Ababa University School of Graduate Studies that this thesis is a product of my original research work, and it has not been submitted to any other university for any academic degree. Materials and information other than my own are dually acknowledged.

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As supervisors/co-advisers of the thesis, we certify that we have read and evaluated the thesis prepared by Samuel Eshete Entitled "Households Multidimensional Poverty Analysis in case of Urban Productive Safetynet Program Beneficeries in Addis Ababa City" recommend for as fulfilling the requirement for the degree of Master of Art Degree in Regional and Local Development Studies. The candidate has incorporated all the comments of the examiner/s during the thesis defense session.

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Abbreviations

AAJCED	City Government of Addis Ababa Job Creation and Enterprise Development Bureau
AACPDC	Addis Ababa City Planning and Development Commission
FAO	Food and Agriculture Organization
FUJCFSA	Federal Urban Job Creation and food Security Agency
GDP	Gross Domestic Product
GoE	Government of Ethiopia
HICES	Household Income and Consumption Expenditure Survey
LDC	Least Developed Countries
MoLSA	Ministry of Labour and Social Affairs
MDP	Multidimensional Poverty
MPI	Multidimensional Poverty Index
OECD	Organization for Economic Cooperation Development
OPHI	Oxford Poverty & Human Development Initiative
PSNP	Productive Safety net Programme
SSN	Social Safety Net
SNNPR	Southern Nation Nationalities and People's Region
ULGDP	Urban Local Governmental Development Program
UN	United Nations
UNFPA	United Nations Population Fund
UNDP	United Nations Development Programme
UPSNP	Urban Productive Safety net Programme
WB	World Bank

Abstract

Poverty alleviation is a priority area of intervention for government and non-government organizations including Sustainable development goal agenda. Although there is a difference in the characteristics and dimension of the problem, it can be found in both urban and rural areas. Establishing effective tools for indicators and poverty measurements are also important for a decision making. In addition to the traditional income poverty indicator, multidimensional poverty measurement became the new way of measuring poverty. This study covered the multidimensional poverty status of urban productive safety net beneficiaries in Addis Ketema and Kolfe Keraniyo subcities. The study employed cross-sectional method of research design and Mixed research method of data gathering and analysis methods. Explanatory sequential design method was utilised to collect & analysed the data. Household Survey, Key informant interview and observation were conducted to collect the relevant primary data and secondary data from the relevant organizations & respondents. A total of 270 respondents were randomly selected from the six woredas in the study area. Descriptive methods and binary logistic regression method was conducted to analyse the data. Alkire and foster method of Multidimensional poverty measurement method were deployed to assess the severity and deprivation status of the respondents. Hence, the severity level of poverty is around 25% and observed that the existence of high number of vulnerable households. And it also confirmed the result of OPHI on the existence of high number of vulnerabilities compared with other regions of the country. The MPI of the addis ketema and kolfe keraniyo found 14% and 12.7% respectively. On the other hand, although the program contributed on the improvement of income poverty status households, its impact on education, health and living standard of the beneficiaries were insignificant. On the deprivation status of the households education (36.4%) and Health (25.3%) were major contributors for multidimensional poverty of households. Economic factors such as unemployment and income variability including inflation were major determinant factors besides to multidimensional indicators. Therefore, from regression result it was noted that, household size, unemployed size, health status, housing ownership status, and person per room of the households were significant positive determinant and contributor while educational status is negative determinant for poverty status of the households respectively. The study recommends revising scale of program support of households which considers the economic context of the country and promoting similar poverty alleviation programs which works on human capital, health, improvement of living standard of household's & job creation activities.

Key words: urban poverty, Multidimensional poverty, urban safety net program,

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CHAPTER ONE
1. INTRODUCTION

1.1 Background of the Study

Achieving sustainable development and economic growth with combating poverty is one of the big challenges for countries. Since the context of poverty differ across the regions like in urban and rural areas, the progress and the elimination strategies of combating the poverty is also very different across the regions. Concerning on urban poverty, the rapid urbanization, internal migration, unemployment contributes for the expansion of urban poverty. According to (UNFPA, 2008) report The world´s population is rapidly urbanizing. The signs are unpreventable. More than three billion individuals right now dwell in urban centres and this figure is anticipated to rise to five billion by 2050.

The extent and the effects measurements of urban poverty described in various ways. But income poverty and multidimensional poverty measurements are the most common one. Multidimensional poverty consists of many factors that constitute the perception of deprivation of poor people, such as poor health, lack of education, poor standard of living, lack of income (as one of many factors considered) and disempowerment. Including the above mentioned Different poverty measures relevant to community and situation can be selected in the multidimensional poverty calculation (Vijaya et al., 2014). Multidimensional poverty in urban area is the result of economic and social difficulties that are found in industrialized cities and which are caused by combination of processes.

Besides to the effect of multidimensional poverty, the measurement method of poverty is a question for researchers and policy makers. The traditional method of income poverty measurements method usually based on households income, are frequently used to define poverty. However, it will be impossible to capture all the variables of poverty and its face with single indicator like income. There is agreement on the inadequacy of income as a measure of poverty, according to (Sen, 1992). Comparing the households income with poverty line by only considering the monitory based measurements my not address the factors such as the daily minimum food calorie intake per person, education level health and living standard of the households. (Wang et al., 2016). Poor people's productivity and income will rise if their basic skills are improved through education and health care (Sen, 1999). As a

result, it is argued that the multidimensional measurement of poverty based on basic capacity can more accurately reflect the real conditions of poverty and the measurement of poverty (Alkire & Foster, 2011).

Poor health condition, illiteracy, a poor living standard, a lack of income, and disempowerment are all factors that lead to poor people's to various level of deprivation. In the multidimensional poverty calculation, different poverty indicators could be applicable by considering the to the situation of the community (Vijaya et al., 2014).

Many countries are creating multidimensional poverty indexes as official national poverty statistics and it seems the tool became acceptable worldwide. For instance, Mexico has a single poverty measure that became multidimensional in 2009 and includes six non-economic elements, as well as income level of the households. Official multidimensional poverty indices (MPIs) supplement official monetary poverty statistics in Bhutan, Colombia, Chile, Costa Rica, El Salvador, and Ecuador, and are revised and published on a regular basis alongside monetary poverty initiatives. Global MPIs are being studied in countries such as Armenia and Turkey, academic studies are being performed in the United States, Germany, and elsewhere, and the UNDP has released studies of social exclusion that use MPIs as part of the study (UNECE, 2016).

The MPI's methodology initially developed by Alkire & Foster, provides a lot of measurement and analysis ways with flexible indicator selection opportunities. These indicators can be customized to meet the specific needs of each country and reflect policymakers' concerns. The MPI can be used for a variety of things, including social and economic policy targeting, monitoring their impact and implementation, coordination among different decision makers, assessing sub-national differences in development, graduation of social protection schemes, and informing social responsibility investment. Furthermore, the MPI can be a particularly useful tool for evaluating how countries, cities, or regions are progressing toward the SDGs goal achievement. The SDGs' first goal is to eradicate poverty in all of its forms, which is a multifaceted clause in and of it. The Alkire-Foster method uses a counting approach to capture both the headcount of those who are multidimensionally poor and the intensity of poverty among the poor, making the MPI a useful measure to capture the extent of acute poverty (UNECE, 2016).

According to the United Nations Development Programme (UNDP, 2017a), around 886 million peoples are multidimensional poor and live in middle income countries. This figure

will be higher in African countries especially in sub-Saharan African countries like Ethiopia. Ethiopia's MPI improved and experienced one of the highest absolute decreases as compared to its starting point, with increases in all ten of the index's indicators. Those in the bottom 20% of the country's population also saw the most change in their living conditions. Despite its development, Ethiopia continues to face serious challenges and, after India and Nigeria, has one of the largest populations of people living in multidimensional poverty. Ethiopia's rapid population growth is exacerbating the issue and impeding the country's MPI development.

In order to eliminate the multidimensional poverty of households, countries together with their development partners utilise various social security systems including a safety net programs. Related to poverty, the term safety net is one of the frequently mentioned one in the areas of Development and social science academics as well as in the implementation of community development activities. Even if there are different controversial ideas in the term and definition of safety net mostly believed that it was adopted from the Latin following the economic crisis of Mexico ((Rahman et al., 2011). According to the World Bank record Social Safety net considered as protective mechanism for the poor's. Therefore, the major concern of safety net programs is supporting the poor's and any vulnerable groups within certain country.

Usually safety nets redistribute resources to poor people to reduce chronic poverty or to protect them against risks to their livelihoods risks posed by disease, loss of employment, drought, conflict, financial crises, or macroeconomic adjustment, for example. Safety networks can both alleviate poverty in the short term and contribute concurrently to a wider development agenda when paired with the longer-term approach taken by social security programs. Yet politicians need to take new approaches that include alliances between government and civil society in order to accomplish both short- and long-term goals effectively.

Ethiopia has strong record in reducing the levels of extreme poverty even though most of the progress has been made in rural areas. The safety net program which has been implemented in rural areas since 2005, contributed much for the decline of poverty. According to (Anderson & Farmer, 2015), the government of Ethiopia had main objective of reducing poverty focusing on rural population.

Urban places especially large cities are highly vulnerable to poverty. The multidimensional poverty in the urban areas is comparable with rural places. According to Ethiopian Poverty Assessment report (World Bank, 2014) (Deressa & Sharma, 2014) the increment in the price of food items support the rural poverty elimination and hurt the urban poor's it may also aggravate the income poverty and consequently it resulted multidimensional poverty in urban area. Hence, urban safety net programs became a necessary policy agenda to address the imbalance. Furthermore, the rapid urbanization of the country and high rate of migration, small and large cities has been used has a destination for the peoples and subsequently the areas become more vulnerable for poverty. According to the (World Bank., 2015), poverty became more urban and its increasing over a time. Accordingly, the government of Ethiopia, together with major development partners such as World Bank introduced a new urban productive safety net program in some selected cities in the country since 2015.

The program's current on-going funding has provided support for the previous first five-year period of the government program, targeting 11 major cities, Addis Ababa and one city from each area (Adama, Assayita, Asosa, Dessie, Dire Dawa, Gambella,Hawassa, Harari, Jijiga, and Mekele). In the first step, during a gradual roll-out phase, 604,000 recipients (the poorest 12% and about 55% of people living below the poverty line in these 11 cities) was targeted via a graduation roll-out plan during a five-year period. Approximately three-quarters of the recipients were from Addis Ababa, considering the large size of Addis Ababa and the relatively high poverty rates it reports (World Bank., 2015).

1.2 Statement of the Problem

Poverty is a priority agenda item in several countries' SDGs, MDGs, and local government development plans. Poverty reduction is one of Ethiopia's key goals, and the government has adopted a variety of policies in this region over the past decades. The number of Ethiopians living in poverty has decreased from 38.7% in 2004/2005 to 29.6% in 2010/11, according to the Household Income Consumption Surveys (NPDC, 2018).

In a number of other fields, the nation has made substantial progress. For example, the number of health posts increased by 159% from 6,191 to 16,048 between 2005 and 2013. Similarly, the number of health centers rose by over 386% from 668 to 3,245 between 2006 and 2013. (FMOH, 2013). Infant mortality dropped from 97 per 1,000 in 2000 to 59 per 1,000

in 2010, and under-five mortality fell from 166 to 88 per 1,000. On the education front, there have also been promising results. In 2005, the primary net enrolment rate for children aged 7 to 12 was 42.3%. This rose by approximately 20 percentage points to 62.2 % in 2011(World Bank, 2014)

Despite apparent success in many areas of well-being, the multi-dimensional poverty index has not shown the same level of change (MPI). According to the Oxford Poverty and Human Development Initiative's (OPHI) global MPI data survey, 87 percent of the world's population was MPI low in 2011, with at least one-third of the weighted MPI indicators missing ((Alkire and santos, 2010)). As a result, Ethiopia is the world's second poorest country. Other studies that looked at the multifaceted facets of poverty in the country found that the MPI only reduced poverty by about 10%, compared to a 33% reduction in monetary poverty over the same time span (World Bank, 2014). Overall, the index shows that the country's suffering is deep-rooted and nuanced, with over 85 percent of the population living in multidimensional poverty.

The effect of multidimensional poverty has different faces in urban and rural areas although it has highest in rural areas it also has an adverse effect in urban places with different reasons like rapid urbanization and slum areas. According to the Ethiopian Urbanization Review, 2015 Ethiopia has one of the fastest growing urban populations in the world; with the number of people living in cities expected to nearly triple in the next two decades. The urban areas are now become more crowded and more peoples became attracted for employment and business opportunities. Moreover, large group of urban Poor peoples have little job opportunities or urban poor's are those in low quality of employment. According to the studies, unemployment is strongly correlated with poverty. Unemployment is not the only problem but underemployment also a challenge in urban poverty these main factors have a strong correlation with Multidimensional poverty of the community. Underemployment is a condition when peoples work, but below the expected hours of work. About 42% of the underemployment and unemployment contain the 15% of poor's(World Bank., 2015).

In urban Ethiopia, the poverty rate is almost as high as the rural poverty rate in slum part of the city. Compared to both systemic and potential peers, urban unemployment rates are also high and unemployment is closely associated with poverty. Like other developing countries, in Ethiopia, the rate of inequality became higher as the total rate of poverty begins to decline.

(World Bank, 2016). As urban areas expand, the need to improve urban safety nets will become a growing imperative for urban areas to solve multidimensional poverty. Simulations show that a moderate urban safety net will halve urban multidimensional poverty(World Bank, 2016).

Moreover according to (Davis, 2006) as its mentioned by (Dominic Ngumbi Mutuku, 2014) Addis Ababa is the largest urban centre which have largest number of slum dwellers about 90% of the total urban residents in the city. Which indicate severe and vulnerability poverty level of the residents in the centre of the city, might be suffered with high challenge in poor socio economic infrastructures and Multidimensional poverty condition. In addition, according to UN habitat 2007 report the largest area up to 70% of the total number of Addis Ababa population live in or below the subsistence level of income and also affected by multidimensional poverty. In many developing countries including Ethiopia, there is a need to address the problem of poverty and to incorporate poverty alleviation strategy program into the development policies of the country. According to the UPSNP PAD document the program main target is to alleviate the poverty and food security of the beneficiaries especially those who are below the extreme poverty line through the cash transfer program. However, the contribution of the program in terms of improving the multidimensional deprivation of the beneficiaries in Addis Ababa city is not yet known.

Several researches on poverty in rural areas have been conducted, but the majority of them have concentrated solely on poverty and societal food security. In Degu'a Tembien District, South Eastern Zone of Tigray, Ethiopia, (Gebrekidan, 2019) conducted a report on Rural Household Multidimensional Poverty and Vulnerability. In the tigray region, (Fetsum, 2018) conducted a study on multidimensional poverty indicators. And also, as per the knowledge of the researcher only few researches has been conducted in multidimensional urban poverty and urban Productive Safety Net Program in Ethiopia. To mention some of the researches on Urban Productive Safety net program are, (Misgana, 2018) studied the contribution of UPSNP in the environmental protection, UPSNP in Addis Ketema Subcity, and (Tsion, 2019) conducted study on the contribution of program for food security of the households. However, still the level of household program beneficiary’s on multidimensional poverty measurement aspects such as education, health, and living standards of the households are not yet fully addressed.

Hence the overall objective of this study is to measure and investigate the effect, magnitude and determinates of the multidimensional poverty in the urban productive safety net beneficiary's households of the program. Therefore the specific research questions of the study are the followings:-

- What is the magnitude and perceptions of beneficiary households to multidimensional poverty in the study area?
- How much is deprivation percentage contribution of each multidimensional poverty indicators in the households?
- What are the determinant factors of household multidimensional poverty in the program beneficiary's households?

1.3 Objectives of the study

1.3.1 General Objectives

The general objective of the study is to investigate the livelihoods improvement and multidimensional poverty status of the Urban Productive Safety Net Program beneficiaries in the Addis Ababa City.

1.3.2 Specific Objective

Specifically the following are the specific objectives of the study,

- To analyze the magnitude of household multidimensional poverty in the program beneficiaries
- To investigate the deprivation percentage contribution of each multidimensional poverty indicators
- To investigate the determinants of household multidimensional poverty in the program beneficiaries households

1.4 Scope of the Study

Although the implementation of safety-net program is going on in both urban and rural areas, due to time and cost limitation, this study focused only on the urban productive safety net program users specifically in Addis Ababa city, in Addis Ketema Subcity in woreda 9 and 2 and Kolfe Keraniyo Subcity in woreda 7. In addition, the study covered specific areas like the magnitude of household multidimensional poverty, its indicators percentage and determinant

factors in the program beneficiaries in health, education, living standards of the peoples and income related factors.

From the above specific thematic areas of the study, in the Multidimensional Poverty there are common 10 indicators. However, person per room indicator is added instead of nutrition, considering the urban context of the county. Therefore, the study specifically looked at the program beneficiary household's Multidimensional poverty deprivation magnitude and determinant factors effect. Concerning on the time frame of the study, since the program is launched in year 2015, only the second round beneficiaries was selected to reflect the intervention of the program in the middle of the program period for beneficiaries.

1.5 Significance of the Study

Considering the adverse effect of multidimensional poverty in the economy and society living conditions, specifically in the urban areas, these study provide an overview on the perception and the poverty status of the households is also give detail insight on the program contribution for the targeted population on improving the Multidimensional poverty status of the beneficiaries. Therefore, the output of the research depict necessary information for other urban areas where there is a plan to implement the program in the future or to use it as source of information for guideline in improving the Multidimensional poverty condition of the society. Moreover, the study results used as input for policy analysis and measures or future program documents for academicians and practitioners on how to achieve the program success in multidimensional poverty reduction and improving the welfare of the community by considering other determinants factors of the program.

1.6 Ethical Consideration

The researcher takes the necessary care and duty in the research process to respect and consider legal, social, ethnic and other delicate issues. Before conducting the research activities, the researcher provided an official letter from the University for the Concerned Bodies. In addition, the researcher takes care of and respects the respondent's culture, tradition, and language. In addition, the information obtained from the subjects was kept private, secret and used only for research purposes.

1.7 Limitation of the study

Both time and budget constraints were the main challenges in the study. Moreover, during the data collection phase, some employees and household respondents were reluctant to answer the whole questions especially income and health related questions. The absences of structured secondary data on the study area were also source of limitation in the research.

1.8 Organization of the paper

This study is composed of five chapters. Brief introduction on the study area was given in chapter one which consist objective (specific and General), statement of the problem, research question, significance, scope and limitation of the study. The second chapter contains literature review, empirical review and conceptual framework of the study. The third chapter comprises, description of study area, research methodology, research design, sampling techniques, data collection and analysis. The fourth chapter deals with data analysis and interpretation of the findings. Finally, the fifth chapter presents conclusion and recommendation of the research.

CHAPTER TWO
LITERATURE REVIEW

Poverty is one of the common phenomena in developing countries. Although the rate varies from one place to the other, it adversely affects the socio economic conditions of the peoples. Over the past decades, the issue of poverty mostly related with rural areas. However, due to rapid and properly unmanaged urbanization, urban poverty became as an issue. Similarly, the measurement in urban poverty was based on income monitory measurement method focusing only in income of households, however recently researchers and development coordination organizations emphasize on multidimensional poverty issues. In order to mitigate the challenge, countries established various mechanisms including Social Safety net programs. Therefore, this section of the study discusses the various theoretical frameworks with explaining the major factors and determinates in the study variables. In addition, this section explores the related empirical studies from different places and present as an evidence for the mentioned factors and present the general conceptual framework of the study variables.

2.1. Poverty

For the definition of poverty different organisations give different meaning the meaning of poverty for World Bank people's income below US$1.9 considered as poverty. According to UNDP the poverty defined as those who live in the environment that doesn't allow them to develop their full potential. Despite the fact that global poverty rates have dropped by more than half since 2000, one out of every ten people in developing countries still lives on less than US$ 1.90 per day, with millions more living on slightly more than this standard poverty line. Significant progress has been made in many countries within Eastern and South eastern Asia, but up to 42 per cent of the population in Sub-Saharan Africa continues to live below the poverty line(UN, 2019).

The concept poverty goes beyond the lack of productive resource materials, income and sustainable livelihood. But it also entails hunger, malnutrition, lack of access for basic services like education, health facilities and other issues like discrimination, exclusion and lack of opportunities in participating during decision making activities. According to UN report more than 736 million peoples lived below the poverty line in year 2015. And peoples around 10% of the total world population was struggling to get the necessary human needs like education, health and access to clean water and sanitation (UN, 2019).

2.2 Multidimensional poverty

Poverty has probably always been known as a multifaceted problem, but it has only ever been calculated on one axis: wages. The idea was that a person's income level may reasonably accurately reflect their ability to reach certain minimum thresholds in a number of areas such as nutrition, clothes, and housing.

While a single information variable, typically wages, is used in a uni-dimensional approach to measuring poverty, a multidimensional approach uses multiple variables to achieve a more accurate and useful metric. It is possible to define the key causes of poverty using multidimensional research and, as a result, to enact socioeconomic policies to minimize poverty diffusion. Comparing one-dimensional/income based and multidimensional approaches to poverty analysis is an important step in deciding whether the group identified as poor based on income information correlates to the group identified as poor based on the multidimensional approach.

Recognizing these limitations has resulted in the creation of multidimensional poverty measurement methodologies, as well as a rising demand from policymakers to create official poverty indicators of this sort to replace income poverty measures. The recent availability of household survey data, which allows for the implementation of multidimensional initiatives, has fuelled this trend.

Axiomatic and knowledge theory techniques, fuzzy set theories, and latent variable methods are some of the methodologies for multidimensional poverty calculation that have been proposed(Alkire & Foster, 2011). The axiomatic approach suggested by Alkire and Foster (Alkire & Foster, 2011) is the one that has been empirically applied on the largest scale through the Multidimensional Poverty Index (Alkire & Jahan, 2018) (Alkire & Foster, 2011).

At the household and individual level, the Multidimensional Poverty Index (MPI) identifies multiple deprivations in health, education, and standard of living. It's focused on microdata from household surveys, and unlike the Inequality-adjusted Human Development Index, it necessitates that all of the metrics used in the calculation come from the same sample. Each person in a given household is categorized as poor or non-poor based on the weighted number of deprivations his or her household, and therefore him or her, faces. The information is then combined to create a national poverty index. The Multidimensional Poverty Index (MPI) assesses the extent and magnitude of multidimensional deprivation (a count of people living in poverty on multiple levels) (the average deprivation score experienced by poor people). It

allows for comparisons across nations, continents, and the globe, as well as comparisons within countries, by ethnic group, urban or rural region, and other key household and community characteristics. The MPI is a good complement to income-based poverty programs (Alkire & Jahan, 2018).

2.2.1 Methods of Multidimensional poverty Analysis

There is controversy to select preferable devise to measure the multidimensional poverty with multiple indicators. There were two main issues during the debates between the policy makers the first issue were on how to set the appropriate weight for each indicator components with appropriate multidimensional poverty score and the other issue were the minimum threshold in order to be considered in poverty in which a person must be below poverty threshold.

2.2.2 The Alkire and Foster Measurement Methodology

Since (Sen, 1976), the recognition of who is disadvantaged and the aggregation of knowledge about poverty across society, have been the two key measures in assessing poverty. The recognition of who is bad in an income scale is relatively simple. An income poverty line divides the population into poor and non-poor people based on the amount of money required to buy a basic basket of goods and services. The properties that should be fulfilled by the poverty index aggregating poor individuals' data into an aggregate measure are given more focus. The (James Foster, 1984) family of indices are the most widely used (FGT) The recognition of the disadvantaged in a multidimensional sense is more complicated. The Alkire & Foster approach incorporates a method for distinguishing the disadvantaged based on the number of (weighted) deprivations with a method for aggregation based on a multidimensional extension of the income poverty/monitory poverty measurment FGT family of steps. We'll go over each one by one, using the notation introduced by (Alkire & Foster, 2011).

Table 2.1: Multidimensional poverty Indicators and their weight

Dimensions of Poverty	Indicator	Deprived if living in the household where...	Weight
Health	Nutrition	An adult under 70 years of age or a child is undernourished.	1/6
	Child mortality	Any child has died in the family in the five-year period preceding the survey.	1/6
Education	Years of schooling	No household member aged 10 years or older has completed six years of schooling.	1/6
	School attendance	Any school-aged child is not attending school up to the age at which he/she would complete class 8.	1/6
Standard of living	Cooking Fuel	The household cooks with dung, wood, charcoal or coal.	1/18
	Sanitation	The household's sanitation facility is not improved (according to SDG guidelines) or it is improved but shared with other households.	1/18
	Drinking Water	The household does not have access to improved drinking water (according to SDG guidelines) or safe drinking water is at least a 30-minute walk from home, round trip.	1/18
	Electricity	The household has no electricity.	1/18
	Housing	Housing materials for at least one of roof, walls and floor are inadequate: the floor is of natural materials and/or the roof and/or walls are of natural or rudimentary materials.	1/18
	Assets	The household does not own more than one of these assets: radio, TV, telephone, computer, animal cart, bicycle, motorbike or refrigerator, and does not own a car or truck.	1/18

Source: Adopted from (Alkire & Foster, 2011)

2.2.3 Definitions for measuring changes in multidimensional poverty

Absolute change (annualized):- The difference in a poverty measure between two years, divided by the number of years between surveys*(Alkire & Foster, 2011)*.

Relative change (annualized). The compound rate of change per year.1 it shows the percentage by which the previous year's poverty has changed.

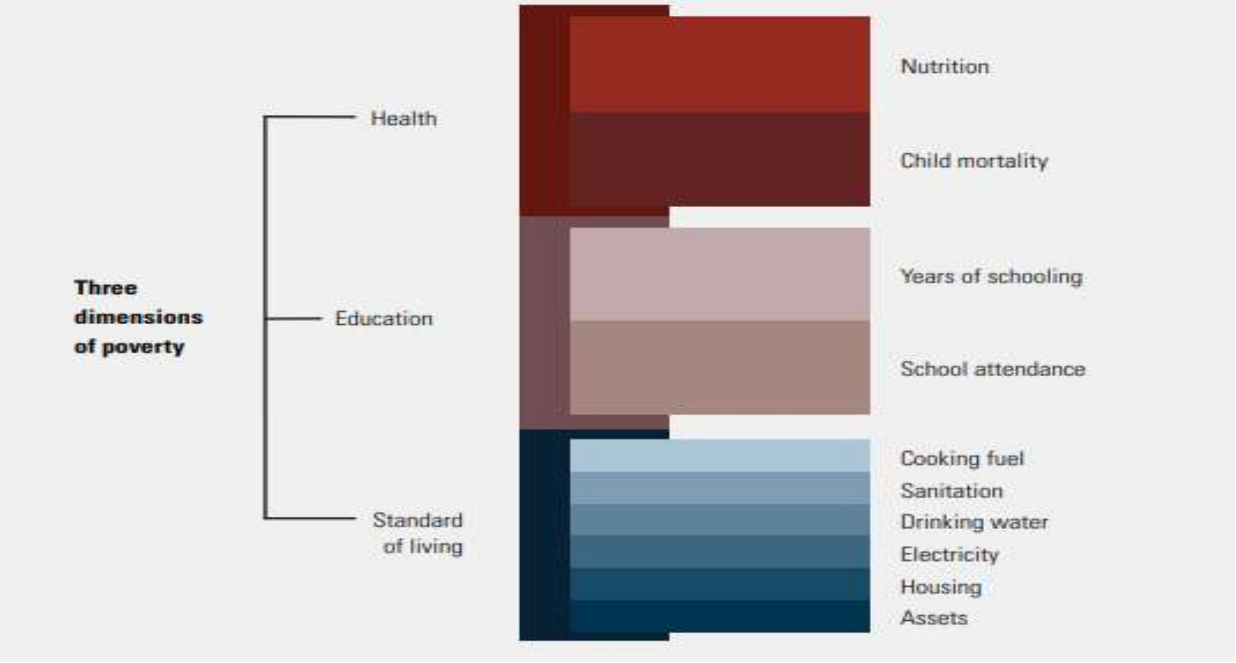
Multidimensional Poverty Index value (MPIT value) is the most comprehensive measure of multidimensional poverty. It considers changes in both the incidence and the intensity of poverty (but not the number of poor people).

Headcount ratio (also called incidence) is the most familiar measure. It shows the change in the percentage of people who are multidimensionally poor (but not the intensity of poverty or the number of poor people).

Intensity- shows how the average deprivation score of poor people has changed.

Number of multidimensionally poor people (calculated as the product of the incidence of multidimensional poverty and the population size) shows how the overall number of multidimensionally poor people in a country has changed and reflects both demographic change and population growth (but not the MPIT or the intensity of poverty). It is important for budgeting and targeting*(Alkire & Foster, 2011)*.

Figure 2.1: Three dimensions of poverty



Source: Oxford Poverty and Human Development Initiative 2018

Incidence vs. intensity

The MPI is the result of two very insightful measures: the Headcount ratio poverty incidence and the average deprivation share across the poor poverty intensity, as we've already explained. Both are important and insightful, and presenting them together is beneficial.

2.2.4 Decomposition in Multidimensional poverty

Decomposing by population sub-groups

The MPI's capacity to be decomposed by population sub-groups is a key function. When looking at country-level projections, the question is which population sub-groups are applicable to a given country, and whether the data available allows for representative estimations. Urban vs. rural, regional regions (districts/provinces/states), religion, caste, and ethnicity are all possible sub-groups to consider. Finally, any decomposition must be performed with data that is descriptive of those classes.(Alkire & Jahan, 2018).

Decomposing by dimensions and indicators

Decomposing by indicators in the same way, one may look at the censored headcount ratios as well as the contribution of deprivation in each indicator. Each one, once again, tells a different story. It's also possible to compare raw and censored headcount ratios to see which deprivations were omitted and whether or not this improved accuracy(Alkire & Jahan, 2018).

2.3 Determinants of Multidimensional Poverty

This research is primarily concerned with determining the causes of multidimensional poverty, as well as its scale and dynamics of poverty. These are critical for reducing the effect and the level of poverty. According to different sources, a household's poverty status is influenced by a range of factors(Bérenger & Verdier-Chouchane, 2007) (ADEOTI, 2014). The study basically considers the family size of the household, the number of children or elders/unemployed size, the age of the household head, and his or her educational level together with health status and living standard such as access to credit and infrastructure/housing. Moreover, some variables are common in both rural and urban areas while some are different.

2.4 Urban poverty: definitions, concepts and measurement

There is no consensus on the concept of urban poverty, but there are two general approaches that are complementary: economic and anthropological interpretations. In addition to a number of other social measures, such as life expectancy, child mortality, nutrition, the proportion of household budget spent on food, literacy, access to health clinics or drinking water, traditional economic concepts use revenue or consumption to identify disadvantaged groups against a standard index of material welfare. Alternative interpretations primarily developed by rural anthropologists and social planners working with rural communities in the Third World allow for local variance in the sense of poverty and extend the term to include non-material deprivation and social differentiation perceptions(Wratten, 1995)

Anthropological studies of poverty have shown that individuals often vary from those of trained analysts in their own definitions of disadvantage. Qualitative dimensions such as liberty, protection, self-respect, identity, close and non-exploitative social relationships, freedom of decision-making, and legal and political rights attach great importance. More broadly, discussions on poverty have been broadened to include more subjective concepts such as vulnerability, privilege, and social exclusion. Such principles have been helpful in examining what raises the risk of poverty and the underlying causes why people live in

poverty. Vulnerability is not only associated with poverty but refers to uncertainty and danger, shock and stress exposure(Wratten, 1995).

2.4.1 Urban Poverty in Ethiopia

Despite the fact that urban vulnerability is much lower than rural vulnerability, one-quarter of urban households are vulnerable. The extent of the danger that rural households face differs greatly. Food price shocks are a major concern, and although the types of households vulnerable in urban areas vary from those in rural areas, access to the labor market is a primary determinant of vulnerability. An urban safety net can reduce the vulnerability of urban households, but it would have to be a slightly different type of safety net than a rural PSNP (WFP-Ethiopia, 2009).

Table 2.2: Distribution of Population, Poverty Rates, and Estimated Number of Beneficiaries, by City

City	Population Estimates (GoE, 2015)	Poverty Rate (HCES, 2010/11)	Adjusted Poverty Rates based on GTP Reporting (2012/13)	Estimated Number of People Below the Poverty Line	Estimated Number of Beneficiaries
Addis Ababa	3,195,000	0.28	0.24	766,800	415,923
Mekele	306,972	0.1	0.09	27,627	14,986
Assayita	25,144	0.13	0.11	2,766	1,500
Dessie	177,688	0.20	0.17	30,207	18,804
Adama	308,466	0.19	0.16	49,355	26,771
Jijiga	154,364	0.15	0.13	20,067	10,885
Asosa	43,204	0.19	0.16	6,913	3,750
Hawassa	284,426	0.25	0.22	62,574	33,941
Gambella	62,093	0.17	0.15	9,314	5,052
Harari	125,000	0.12	0.1	12,500	6,780
Dire Dawa	268,000	0.35	0.3	80,400	43,610
Total	5,039,336	–	–	1,072,982	582,000

Source: World Bank , 2015

2.5 Urban poverty elimination strategies

2.5.1 Safety net programs

The analogy of the safety net is derived from high-wire walkers who, if they fall, are covered by a safety net. The safety net stops any walker who slips from reaching the floor and

incurring serious injuries, unexpectedly or not. It is not shocking, following this line of thinking, to learn that some organizations and academics use the word Social Safety Net in such a way that it involves private and public structures that help people maintain a minimum level of consumption (Paitoonpong et al., 2008).The goal of social safety nets is to prevent the poor and other disadvantaged people from slipping into poverty or getting trapped in the pit of poverty when temporary disturbances, such as natural disasters or economic downturns, are affected (ADB, 2010).

Because of social security networks, an estimated 36% of the very poor escaped extreme poverty, providing clear evidence that social safety net programs, including cash, in-kind transfers, social pensions, public works, and school feeding programs aimed at poor and vulnerable households, have a significant impact on the global fight against poverty. Data also shows that these programs reduce inequality and reduce the gap in poverty by around 45%. These positive effects of safety net transfers hold true for low and middle-income countries alike(World Bank., 2019).

2.6 Urban Productive Safety net in Ethiopia

UPSNP aims to strengthen the livelihoods of the beneficiaries referred to in its manual. In a variety of ways, UPSNP facilitates the growth of the beneficiaries' properties. In short, it contributes to financial assets by providing cash payments for working days and grants as needed, to human assets by promoting functional adult literacy classes and helping parents take their children to school rather than work, to social assets by building the confidence of customers to participate in community relations and improve their social network, to natural/physical assets (MoUDH, 2016).

2.6.1 Components of Urban Productive Safety Net

The UPSNP has three major components:-

Component 1: Safety Net Support

This component of the program is supporting the delivery of a predictable, timely, and productive safety net through conditional and unconditional safety net transfers. The project is ensuring that various safety net principles such as primacy, adequacy, and predictability of transfer are respected.

Component 2: Livelihood Services

The target groups for these programs are individuals in households receiving conditional transfers that want better and higher-paid jobs. This aspect will promote interventions that will enable graduation from the Program and encourage moving out of poverty. This support can be accessed by one person per household, resulting in a total of 98,000 individuals eligible for this portion. The household will select the person. The support is implementing with the One Stop Centre Directorate (OSCD) in the Urban Food Security and Job Creation Agency which established One Stop Centres in woredas/kebeles. Some of the functions were performed in collaboration with MoLSA.

Component 3: Institutional Strengthening and Project Management

Under this component support in development and strengthening of project systems for targeting, monitoring and evaluation (M&E) and MIS, payments, and citizens' engagement (CE) were delivered. It also finance capacity building (human resource, training, administrative, and physical capacity) and strengthening program management (coordination, financial management (FM), procurement, and safeguards)(World Bank., 2015).

2.6.2 Results and impacts of the Program

The Results and impacts of the Program is the following:-

- Impacted beneficiaries consumption smoothening.
- improving financial inclusion.
- contributing to women economic empowerment by involving women in all project activities.
- Strengthening local level social capital of project beneficiaries (Idir, Iqub).
- Enhanced environmental protection and infrastructure development of beneficiary towns.
- The saving and saving culture has improved
- Access to public services (health, education, housing, transport, etc) has improved.
- Sanitation condition of cities is improved.
- Improved the liveability of the cities.
- Reduced flood hazards from the nearby hills and mountains of the cities.
- Improved the quality and coverage of social infrastructures that include public toilet, maintenance of earthen roads, primary schools, and health posts. (World Bank., 2019)

2.7 Review of Empirical Studies

There are several research works on the poverty linking with social safety net program, impact and beneficiaries status in various places. Mostly the research works on the poverty

assessment focused on rural areas and one-dimensional. Only few studies have studied multidimensional poverty analysis or the contribution of the social safety net program on multidimensional poverty reduction of the households. Using panel data approach (Beshir, 2011) analysed the impact of the program on welfare and labour supply in rural Ethiopia. (Dessalegn Anshiso, 2013) also conducted the study on the Assessment of the Impact of Productive Safety Net Program on Households Asset Building and Soil Conservation Activities in Lemo District, Haddiya Zone, Southern Ethiopia. (Maier, 2014) also studied the impact of Productive Safety Net Program on food security and vulnerability among beneficiary households in Tigray, Amhara, Oromiya and Southern Nations, SNNPR.

Outside of our country there are different related research works and articles on poverty assessment. A study also had been carried out in Bangladesh, (Akter, 2014), the role of SSN on income generation and food consumption of poor people. The findings show that SSN program has positive effect on the livelihood pattern and income generation of the very poor people in Comilla district.

In the case of Nekemte region, (Terefe et al., 2017) conducted a study on the determinants of urban poverty in six urban kebeles of the town. They looked at the factors that influence poverty and discovered that family size and rural-urban migration have a positive and important impact on the likelihood of a household becoming poor. (Shaku & Legesse, 2016) conducted research in the Arsi administrative zone of Oromia, Ethiopia, and found that educational level, household size, and household heads' business participation status all had a positive impact on poverty. Poverty was also found to be higher among divorced and widowed household heads than among married households. However, those who engage in various business activities have lower multidimensional poverty than those who do not engage in business activities. However, there is limited number of researches of multidimensional poverty assessments. (Mboko Ibara & Ossouna, 2021) investigate Determinants of Multidimensional Poverty among the Under-Five: Illustration Based on Data from the Congo Multiple Indicator Cluster Survey.

2.7.1 Study Gap

As it has been indicated in the empirical review of studies, most of the poverty related studies focused on rural areas. In relation, Studies which focused on social safety net programs also mostly concerned with rural development and agricultural and livestock development areas. As capacity of the researcher, only two studies conducted on the contribution of the program

for food security, environmental and gender contribution was assessed so far. Therefore, conducting study on multidimensional poverty status of the beneficiaries will indicate the changes as well as the contribution of the program and depicts the relevant information about the household's deprivation status and contributing factors for their poverty. Furthermore, the study tries to investigate the determinate factor of urban poverty in the study area. Hence, this study tries to fill the gap on multidimensional poverty status; it's contributing factors and main determinants for poverty in Addis Ketema and Kolfe keraniyo sub cities where there is high deprivation of poverty.

2.8 Theoretical framework of the study

According to literatures there are different theoretical foundations the assessment of poverty. These theories provide clear direction to assess for multidimensional poverty and to plan poverty reduction strategies. These are the welfare approach, the basic need and the capability views or schools of thoughts and Sustainable Livelihood Framework (SLF).

The welfare Approach

Is important approach when societies are unable to achieve a degree of economic well-being considered being a minimum by that society's definition, people will face poverty. It considers income to be a deciding factor in whether or not someone is poor or not. Individual utilities, which are dependent on social interests, are the sole determinants of well-being (Bidani & Ravallion, 1997).

The Basic-Need Approach

The International Labor Organization (ILO) and the World Bank (WB) developed the basic needs principle in 1976, stressing the importance of meeting people's basic needs rather than concentrating on a country's economic development. It focused attention on the poor's need or deficiency. As a result, donation-based funding is recommended to help the needy rise above poverty. As the poor rise out of poverty, aggregate demand rises, basic goods and services supply rises, and individual involvement in the process rises (Degefa, 2008).

Conceptually, its aim is to support peoples to reach in to minimum subsistence level for households while its definition is the deprivation of consumption. Therefore, it deals with ensuring adequate access to consumption for deprived households. The policy advocacies in this theory concerned only on supporting poor's for approaching subsistence. In terms of

power relation, it's paternalistic or little in scope for poor peoples. However, its outcome is generalised but cause regional disparities.

The capability school of thought

This theory focuses on individual abilities or capacities to achieve a series of tasks, rather than on economic well-being or essential needs considered to meet society's minimum norm. This is a different criterion for defining and measuring happiness that tells how capable people are to do things that are intrinsically valuable. A broad range of parameters for measuring poverty, rather than just income and/or consumption, is suggested by such an approach to poverty classification and/or calculation. Publicly funded but non-marketed services such as sanitation, health care, education, and life expectancy are claimed to be included in the index (Davis & Sanchez-martinez, 2014)(Sen, 1999). This approach typically supports the essence of multidimensional poverty measurements.

Beyond the scope of basic need approach which states about substance consumption. these theory advocate on peoples equal freedom to choose their way of life. Moreover, its definition doesn't rely on deprivation of consumption but on deprivation of opportunities. Instead of insuring access to basic consumption, it ensures the opportunities of peoples to choose their way of life. Therefore, its policy objective is empowerment instead of subsistence. Also encourage peoples to share their opinions and to shape policies freely. Its appears multiple stage but emphasis on localisation.

The Sustainable Livelihood Framework (SLF)

This framework was one of the frequently used methods since early 1990s. Although the method has a potential to address the societies socio economic problems in a compressive way, specifically the framework is known with the poverty reduction strategies and addressing the needs of poor's. The method basically focused on improvement of living conditions of poor's and solving their problems in sustainable way through the assets and strategies of the societies (UNDP, 2017b). The approach has been used for several years in the rural context and there is increasing interest in adapting it to the urban context (Majale, 2002) As its stated in DFID the sustainable logical framework is main tool for the response in vulnerability conditions like shocks in the poor society (DFID, 2001).

These approaches captures and provide meaningful understanding the fundamental causes and dimensions of poverty without limited view only on economic shocks or risk of food insecurity. These framework analyse the shocks and deprivation status considering the five

pillars of livelihood assets which are, human capital, social capital, physical capital, natural and financial capital.

2.9 Conceptual Framework

In order to give detail overview of multidimensional poverty with social safety net programs, sustainable Livelihood framework (DFID, 1999)(DFID, 2001) were adopted to construct the framework of this study. As it has been illustrated in the diagram, seasonal shocks such as inflation, social and political instability plays significant role in exacerbating the household's poverty conditions. On the other hand, Seasonal unemployment majorly affects the income and financial capacity of households. These trends will eventually leads to adverse effect of financial, human and physical asset of the peoples. The primary effect will cause income poverty and credit access in lack of collateral support. Consequently, Human development in terms of health, education and living conditions will not be secured in lack of inclusive socio economic opportunities. These all factors put pressure on households to experience multidimensional poverty deprivation. To mitigate these all challenges households prefer to adopt various coping strategies such as petty trade, daily wage and remittance support.

In reverse, Economic factors like sufficient income, employment; saving and access to credit contribute a significant positive role to uplift the affected households. The multidimensional poverty status will not be limited with these but also the education and health, and living conditions of the households. Therefore, to create a sustainable livelihood it is inevitable that the need for structural transformations. Transforming structures and process include the development of effective institutions, approval of effective policies and laws including the government interventions on poverty reduction through Social Safety net programs, which enhance the improvement of income, food security, wellbeing and reduction of vulnerability for the improvement of the livelihood of the households.

Figure 2.1: Conceptual framework for the study, sustainable livelihood framework and Multidimensional poverty reduction

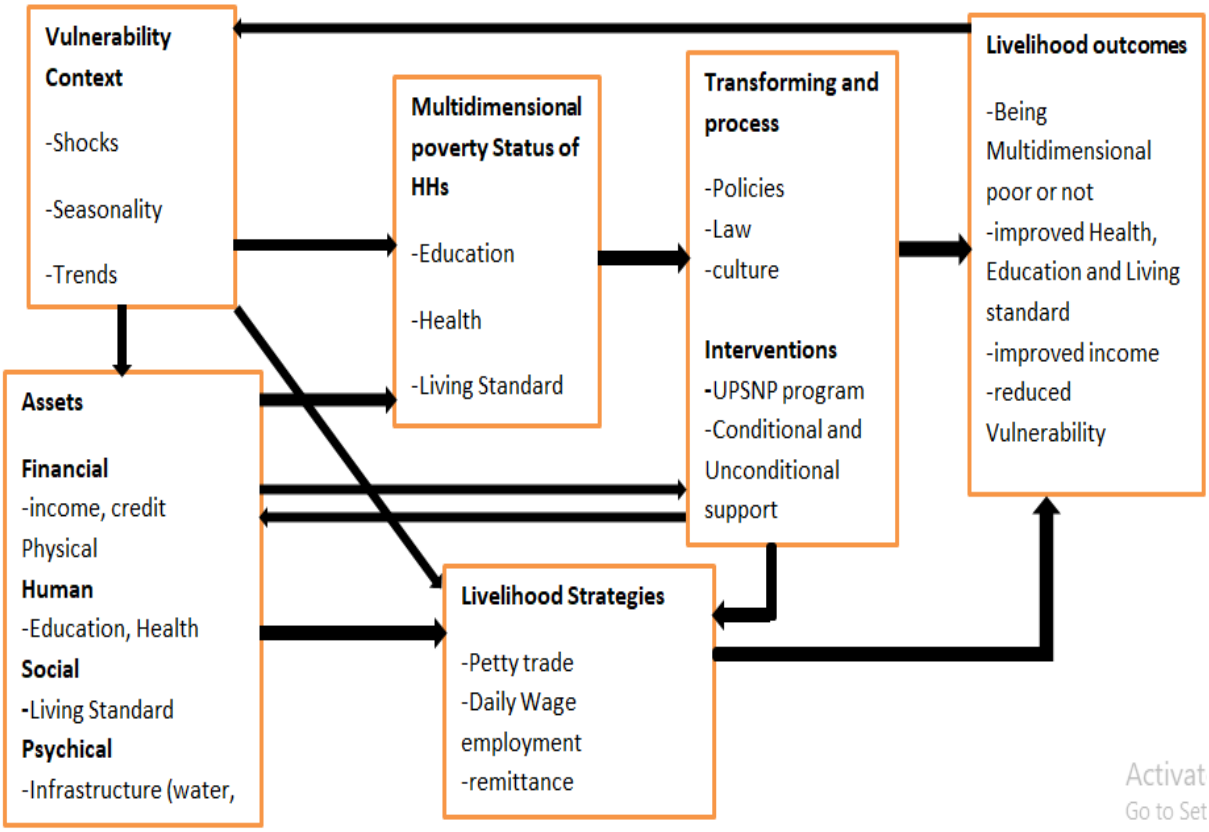


Figure 2.1 Conceptual framework for the study, sustainable livelihood framework and Multidimensional poverty reduction, Adopted from (DFID, 2001)*and* (Alkire & Foster, 2011)

CHAPTER THREE
RESEARCH METHODOLOGY

This section of the study discuss about the description and the justification for the selection of the study area. Moreover, the section provides more information about the methodology of the study, research design, data collection methods, the sampling frame of the study, and the quantitative and qualitative data analysis of the study.

3.1 Justification for the Selection of study area

Addis Ababa City is the largest urban area in Ethiopia. The city also one of the largest places with poor livelihoods compared with other urban regions of the country (World Bank Group, 2015b). On the other hand the city is becoming center for migrants and unemployed. This and other reasons leads the people for urban multidimensional poverty according to (OPHI, 2020) the city has highest number of multidimensional vulnerable peoples compared with the rest of the regions. Considering the adverse effects of the poverty in to the society government has launched social safety net program to support peoples which are under extreme poverty with their income and food security. According to the UPSNP project appraisal document about 72% of program beneficiaries are situated in Addis Ababa city. Kolfe Keranio and Addis Ketema sub city are selected for this study based on the report of City government of Addis Ababa Job Creation and enterprise Development Bureau in year 2020. According to the report, the two sub cities are the first and the second highest sub cities with their UPSNP beneficiaries' household compared to other sub cities. Furthermore, the places are very close for urban slum part of the city.

Table 3.1, House Hold Beneficiaries with sub cities

No.	Sub City	Family Headed			No. of Beneficiaries		
		Male HHH	Female HHH	Total HH	Male	Female	Total
1	Lideta	1143	3983	5126	8117	10660	18777
2	Kirkos	990	4160	5150	6421	9911	16332
3	Addis Ketema	1133	5852	6985	11228	14092	25320
4	Gulele	1251	4234	5485	8447	10462	18909
5	AkakiKality	1392	2888	4280	6127	7915	14042
6	Bole	970	743	1713	2770	3002	5772
7	Yeka	884	4872	5756	8661	11586	20247

8	Kolefe Keranio	2090	3893	5983	9858	11634	21492
9	Nifas Silk Lafto	1293	4201	5494	8236	10256	18492
10	Arada	791	3174	3965	5943	7774	13717
	Total	**11,937**	**38,000**	**49,937**	**75,808**	**97,292**	**173,100**

Source: Addis Ababa Job Creation and enterprise Development Bureau presentation, 2020#

Table 3.2 Addis Ketema sub city PSNP beneficiaries worda distribution

Woreda	**House Hold**			**FAMILY SIZE**			**#**	**Max**	**BENEFICIARY**		
	M	**F**		**M**	**F**		**Able**		**M**	**F**	
1	160	905	1065	2171	2686	4857	3580	7992	1791	2223	4014
2	216	1246	1462	2427	3039	5466	3041	10918	2427	3067	5494
4	391	993	1384	2951	3280	6231	3406	10026	2346	2687	5033
6	288	1148	1436	2442	2908	5350	3331	10354	2363	2835	5198
9	151	151	302	1825	2309	4134	3829	8130	1768	2350	4118
10	151	290	441	858	1023	1881	1016	3162	728	858	1586
	1357	4733	**6090**	12674	15245	**27919**	18203	50582	11423	14020	**25443**

Source: Addis Ketema subcity Administration, urban food security office 2020

Table 3.3 Kolfe Keraniyo sub city PSNP beneficiaries worda distribution

Household			**Family**			**Employed**			**Beneficery**		
Male	**Female**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**
269	152	421	808	900	1708	161	256	417	718	814	1532
208	128	336	665	709	1374	67	269	336	567	609	1176
116	82	198	423	442	865	50	155	205	343	370	713
121	73	194	363	409	772	45	147	192	319	369	688
114	58	172	339	374	713	30	142	172	299	326	625
81	80	161	336	345	681	54	106	160	280	314	594
909	573	1482	2934	3179	6113	407	1075	1482	2526	2802	5328

Source Kolfe Keraniyo subcity woreda 7 beneficeries

3.2 Description of the Study Area

Addis ketema Sub-City is one of the ten sub-cities of Addis Ababa and is found at the center of the city. It is located north of Gulele, south of Lideta, east of Arada and west of Kolfe

Keraniyo Sub-Cities. It covers an area of 898 hectares /35.92km2 / and lies between 2300 to 2500 meters in altitude which is high land (Dega). It enjoys a mild climate with an average temperature of 160c. The sub city of Addis Ketema formerly had 21 kebeles but after the 2003 reform, it was reorganized in to ten districts (local units of administration).

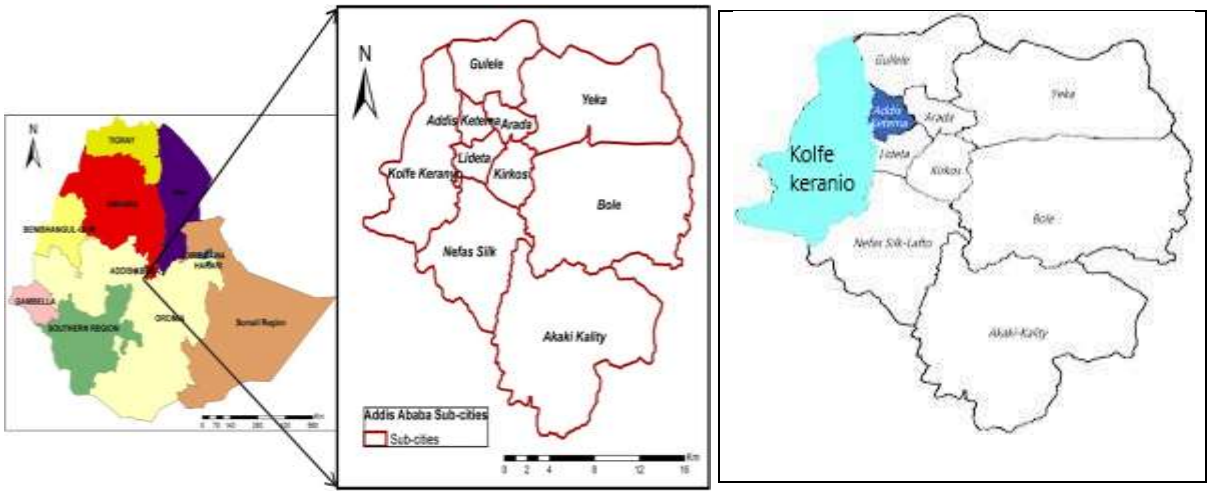
Addis KetemaSub-City is estimated to have 326,109 people of whom 159,457 are males and 166,652 are females with an average annual growth rate of 2.79% as projected for 2007 census (CSA, 2005). Most of the dwellers live in slums. The survey studies of Labor and Social Affairs Bureau pointed out that there are 726 privately owned houses and 2197 (61.3%) government houses in the area. Accordingly, the average household family size in the sub city is 5.43 which are above the national average (social and civil affairs department, Addis ketema Sub City, 2010).

According to the socio-economic assessment of households in Addis ketema Sub City done on June 2010, (55.58%) of the households earn their livelihood from the informal sectors of the economy. They are engaged in baking "Injera", petty trading, washing clothes, prostitution, 'bed renting', and 'child renting', though the families engage in the above activities, the household income is very low. Although some of the dwellers always struggle to improve their income, they couldn't succeed and make a significant change in their household life due to different social, health, economic and psychological problems. In the study area many street children and women are found (social and civil affairs department, Addis ketema Sub City, 2010). So, that the researcher selected this area purposively to conduct current research.

Kolfe Keraniyo sub-city is among the biggest sub cities which were established under Addis Ababa City Administration. It is about 9.6kms away from center of the city and about 13 kms the western side of the sub-city reaches from the centre. It is located at the western part of Addis Ababa, between the road to Jimma and Ambo towns.

According to Addis Ababa Bureau of Finance and Economics report (2007/8) the populations of Kolfe Keraniyo sub-city were about 339,186 in the year 2007/8. The sub city stands the eighth largest populous sub-city in Addis Ababa. Population density of the sub-city in general, is about 43.2 per/km2 while the annual growth rate was about 3.2%. Out of the total population of the sub-city, 44.5 percent is males and 55.5 percent cover the females' population.

Figure 3.1: Map of Addis Ketema and Kolfe Keraniyo Subcity



Source: retrieved from http://www.addisababa.gov.et/sk/web/guest/

3.3 Research design

Basically the study used the mixed research design approach. According to (Creswell, 2012) key factors take in to consideration to decide whether to use the mixed research design or not. Hence, the method classified in to; convergent parallel design, the explanatory sequential design, the exploratory sequential design, the embedded design, the transformative design and the multiphase design.

Accordingly, considering the nature of the study, the mixed research design was selected, since, it fits the model of the research and it helps to triangulate the data. Whereas, the quantitative part of the research were elaborated by the qualitative methods. Moreover, Explanatory Sequential Research design was utilised for the design of the study. Therefore, the quantitative (*Quan*) data was collected first and Qualitative (Qual) data collection followed. According to (Creswell, 2012)these method relevant to refine further the quantitative data using Qualitative data. It also helps to explore key results of the survey in more detail, or following up with outlier or extreme cases. Furthermore the study used explanatory and descriptive methods to answer the listed objectives.

3.4 Method of Data Collection

The raw data for this study were collected at one point in time and cross sectional research design were employed to conduct the study. In order to achieve the above mentioned objectives the study, both primary and secondary data were collected and analysed. The primary data was collected using Survey and Observation of the researcher. Moreover, secondary data were gathered using document review method.

Survey

The survey research design one of the most known procedures in quantitative research by which, the researchers used a sample or to the entire population of people to describe the attitudes, opinions, behaviours, or characteristics of the population (Creswell, 2012). Questionnaires was prepared and distributed to households in the study area and interviews also were conducted with four selected key informants Specifically with Kolfe and Addis Ketema Subcity productive safetynet Directors and woreda coordinators. Books, journals and reports was reviewed and use as a source of secondary data.

Observation

At some point, Personal observation of the researcher also helps to get in-depth knowledge about the living condition of households in the study area. In qualitative research, the researcher, collect data to learn from the participant in the study and develop forms called 'protocols for recording data' as a study process. During the observation the method called observational protocol which the researcher records note about the living conditions of the participants Moreover, the researcher gather text (word) and image (picture) data. Observing participants in their home, work, asset ownership or family setting, and understanding the surrounding environments were relevant for the assessment. the researcher take a note that become a qualitative database (Creswell, 2012). Therefore, During the observation the data collection method of the researcher was observing as an observer to take the relevant information (Creswell, 2007).

3.5 Sample frame

According to the program document, the UPSNP has targeted 35 woredas from the 10 sub cities of Addis Ababa for its initial implementation. For these study two sub cities namely Addis Ketema and Kolfe Keraniyo sub cities are selected purposively where there is the highest number of program beneficiaries located respectively. Two subcities are selected to be more representative and to reflect actual figure. Moreover, one woreda from kolfe keraniyo and two woredas from Addis Ketema subcity were selected using simple random sampling. Therefore woreda 9 and 2 from Addis Ketema subcity and woreda 7 from Kolfe Keraniyo sub city has been selected. There are about total number 3244 households in these two subcities therefore, to determine the sample frame of the study were purposefully classified households into their locations.

Table 3.4 sample population

Sub City	Wereda	Ketena Areas	Male house holds	Female House hold	Total
Addis Ketema	**09**	**(01,0507)**	**151**	**151**	**302**
	02	**(08,09)**	**216**	**1246**	**1462**
Kolfe Keraniyo	**07**	**(02,04,05,06,07)**	**573**	**909**	**1482**

Table 3.2 sample population

In order to address the question of to what extent does the multidimensional poverty is existed in beneficiaries household, the study utilised a sampling formula of (Cochran, 1977) by taking random sample from the total population of both MHH and FHH. Therefore, the random sampling was done using formula by (Cochran, 1977) Cochran (1963:75) as its mentioned by (Puszczak et al., 2013).

Z square is in 90% confidence interval ±10% precision

P- is intended proportion of the population 1%(0.1) due to the time and cost as constraint

q= (1-P) = which is 0.5

e is the desired level of precision 0.05

the adjusted sample size can be noted as x

$$X = \frac{\mathrm{Z2} * \mathrm{P} * \mathrm{q}}{e2}$$

$$\frac{(1.97)2\ (0.9)(0.1)}{(0.05)2} = 138.2$$

$$n = \frac{n0}{1 + \frac{(n0 - 1)}{N}}$$

$$1 + \frac{(138.2 - 1)}{1764} = 129\ Addis\ Ketema$$

$$1 + \frac{(138.2 - 1)}{1482} = 128\ Kolfe\ Keraniyo$$

Then the total sample size of the study is 129+128=257. Then 5% of the total population is added as a reserve and total population for the study became 270. Since the implementation of the program is done at a bottom level, further sampling is necessary to select the beneficiaries. For these purpose the researcher has selected *Ketena* locations. From Addis ketema sub city,

woreda 9, there are 9 ketena areas while there are seven ketene areas at woreda two and there are 7ketena areas in Kolfe Keraniyo sub city woreda 7. From these total number of ketena areas, the researcher has selected three ketna areas from woreda 9 and two ketena areas from woreda 2. Convince sampling method used as selection criteria for ketena areas based on the willingness to provide the data from the management.

Multi stage sampling technique were utilised using both probability and non-probability methods, for a proper selections. To determine the sample frame of the study and to investigate the determinants of the multidimensional poverty in the households, the study purposefully classified households, with their socio economic and demographic context.

3.6 Data analysis methods

Based on the above mentioned data collection methods both qualitative and quantitative data's was collected and analysed as follows:-

3.6.1 Qualitative Data Analysis

The collected Qualitative data through observations, interviews was converted in to description and summary. Thematic analysis deployed to analyse the qualitative data. According to (Creswell, 2012) the analysis method should interconnect themes. Therefore, the researcher base qualitative themes, to display a chronology or sequence of events, such as when qualitative researchers generate a theoretical and conceptual model. While conducting thematic analysis, data was collected from interviews, and direct observation transcribed. In order to get familiarized, the data was taken as a note, and a relevant point was highlighted to be coded. The note were reviewed repeatedly whether they support the collected data or not. Finally, the themes and sub themes was defined and the data that fit under each theme was written up in direct quote.

3.6.2 Quantitative Data Analysis

First the survey data was collected and edited coded and entered into a computer using Microsoft Excel 2010. The quantitative data of the study were analysed by descriptive statistics and econometric technique. The descriptive statistics used frequency, percentage, mean, and range and cross tabulation results to describe the characteristics of the respondents and to compare the result of the variables based on the other variables. The econometric technique used binary logistic regression model to determine whether the beneficiaries are in multidimensional poverty or not.

Questions related to income sources, education, health and living standard of the beneficiaries were forwarded to the respondents to measure the Multidimensional poverty status of the beneficiaries. The data analyses were conducted using STATA 14 software for the econometrics and descriptive part respectively. For the purpose of comparison the study used poverty measurement line as a cut-off point using the Oxford Poverty and Human Development Initiative (OPHI) methodology developed by (Alkire & Foster, 2011) to analyse the multidimensional poverty status (Simultaneous multiple deprivation of households). since the method is flexible and easy to use it with different dimensions and indicators, important to use it in different societies and situations to observe the difference(Alkire & Jahan, 2018). The extent of MDP in the study area analysed in consecutive steps. First, MDP indicators were identified based on global MPI with their deprivation cut-off point and weight. Secondly, few MDP indicators were contextualized to the local area situation such as year of schooling, cooking fuel (ventilation or improved stove), and sanitation.

For the achievement of the first objective of the study, identification of deprivation cut off for each household's multidimensional poverty indicators were conducted. And by summing the cut off score above 50% is severe poor. 50%-33.3 % is under less severe condition. 20%-33% vulnerable condition and in general < 33.3%, it is identified as non-poor and above 33% considered as multidimensional poor. After identification of the poor from non-poor, the aggregation was computed with the headcount ratio (H), intensity of poverty and MPI of the sample population. The proportions of people who experience multiple deprivations which is headcount ratio H is computed as

$$A(Intensity\ of\ poverty) = \frac{q(no.of\ Multidimensional\ poor\ person}{n(Total\ Population\ \ under\ the\ intensity\ of\ poverty}$$

Where q is the number of people who are multidimensional poor n-is the total population under study Intensity of poverty.

The censored head count ratio of each indicator was measured to accomplish the second goal, which is to assess the contribution of each indicator to overall poverty. The method of excluding people who do not meet the poverty cut-off from deprivations and concentrating only on those who are in multidimensional poverty is known as censoring.

Cut off points

In order to investigate MDP, this study used (Alkire & Foster, 2011) method. Basically the main indicators of the weight and cut-off points are derived from Global MPI which is proposed by the researchers and UNDP. The cut off point for the MPI to consider whether the beneficiaries are poor or non-poor is 33.3% or 1/3 of the weight of all other PW indicators. If the score exceed more than 33.3% the household including everyone in it is considered as multidimensional poor. Households with a deprivation score of 20% or higher but less than 33% are near multidimensional poor and considered to be vulnerable. Households with a deprivation score of 50% or higher are severely multidimensional poor (Alkire & Foster, 2011). The censored headcount ratio was calculated by multiplying the amount of poor and marginalized citizens in each indicator by the total population.

$$MPI_{country} = w_1 CH_1 + w_2 CH_2 + \ldots + w_{10} CH_{10}$$

The percentage contribution of each indicator to overall poverty is computed as follows: $(Indicator\ contribution\ to\ MPI) = \frac{WiCHi}{MPI} * 100$

The dimensions selected for this study are health, education and living standards as per global MPI.

- Education: The study used both the indicators set by the (Alkire & Foster, 2011) and FEDRE Education curriculum, in the case of the curriculum, students who are not completed primary education then the HH considered as deprived. And each indicator is weighted equally at 1/6.

- Health: this indicator focus on the mortality and illness of family members and children's. If child mortality happens <18 Age caused by preventable disease then it is considered as an indicator. (Adeoti, 2014) if the household members faced serious health problems and are not cured with medication then it was considered as deprived. Additionally according to (CSA, 2012) the HH family member face any health problem with in two months prior to the interview, the HH was considered as deprived. If there is disable person in the HH that can't hear, can't see, and can't move without help then the household considered as deprived to this indicator(CSA, 2012). And each indicator is weighted equally at 1/6.

- Living standard: There are seven indicators in this dimension. Each indicator is equally weighted at 1/21. Access to clean drinking water, improved sanitation, and the use of clean cooking fuel are three MDG indicators that, according to (Alkire and

santos, 2010), are linked to health and living standards and especially affect women. Access to electricity, room availability, and the existence of room flooring materials are other measures that are thought to provide a proxy indication of the household's housing efficiency. The seventh metric is meant to cover the ownership of such properties (Alkire & Jahan, 2018)

The detail of each indictor for the living standard dimension of the MDP is presented hereunder so as to fit to the analysis of the local situations:

- **Water:** If the water supply is piped water, public tap, borehole or pump, protected well, protected spring, or rainwater, whether it is within a distance of below 30mins walk distance in urban areas, a household has access to safe drinking water(Alkire & Foster, 2011).
- **Improved sanitation:** if the household has some type of flush toilet or latrine, or ventilated improved pit or composting toilet, provided that they are not shared by households of more than one compound, then the households are not deprived.
- **Electricity:** A household is considered to be deprived of electric power if it does not have access to any form of electricity (powered by solar battery or hydroelectric or wind) or if rented (shared from neighbor).
- **Room flooring**: if the floor of the house is made from dirt, sand or dung counts as deprivation in flooring. And these types of houses considered as poor quality and may have an adverse impact on the health of households (UN Habitat, 2004).
- **Room density (**Overcrowding)**:** This indicates number of persons per room. A household was deprived in rooms if more than three persons lived per room. (UN Habitat, 2004)
- **Cooking fuel**: A household is considered to be deprived in cooking fuel if the household cooks with dung/leaves; charcoal or wood, grass and had no improved materials and kitchen is not ventilated, then household is considered as deprived.
- **Assets ownership**: If a household does not own at least two of the assets, the household is considered to be deprived. The assets are radio, TV, telephone, bike.

3.7 Econometrics Model

In order to conduct the research, the researcher used both Quantitative and qualitative variables like household size, health condition, employment, sex, educational status, number of person per room, income variability were included in the model as variables.

3.8 Model Specification

Based on the theoretical review and empirical study and nature of the research, binary logistic regression model were selected for the analysis of econometrics part. Since the research have dichotomous variables which is dependent and independent variables for the multidimensional poverty, binary logistic regression was used to assess the relation between the variables. According to (Gujarati, 2004), binary logit is employed when a study has qualitative response variable, or regressed taking two values these two values. The dependent variable has dichotomous values taking a value 1 if the households are poor for multidimensional poverty status and 0 if they are non-poor. Thus, the binary regression was used in order to measure the association between the outcome variable and the independent variables.

$$logit(poverty\ status) = f(\beta 1 Sex + \beta 1 Educational\ Status + \beta 1 Marital\ Status + \beta 1 Household\ size + \beta 1 Unemployed\ size + \beta 1 Credit\ acess, + \beta 1 Health\ status + Housing\ ownership + \varepsilon)$$

Where Multidimensional poverty status $\begin{cases} 0 = if\ Households\ are\ poor \\ 1 = if\ Households\ are\ non-poor \end{cases}$

We then used a Logistic regression model, given by

$$logit\ (p) = \ln\left(\frac{p}{1-p}\right) = \beta 0 + \beta 1 X1 + \beta 1 X1 + \beta 1 X1 \ldots\ldots\ldots \beta 8 X8$$

Where X1 ……X8 are explanatory variables (Gender, Educational Status, Marital Status, Household size, unemployed size, credit access, Health Status, Housing Ownership).

3.8.1 Model diagnostic tests

In addition, a multicollinearity test to assess the association of independent variables was performed. Multicollinearity, according to (William Mendenhall & Sincich, 1997) refers to the degree to which other independent variables in the study could explain an independent variable. Therefore the mean VIF for this study was found below 10 which confirm the absence of multicolinarity problem.

Hypothesis and definition of variables

Dependent variable: The dependent variable of the study is household's poverty status represented by 0 for multidimensional poor, 1 for multidimensional non-poor. The cut-off point of the households' score is 33.3% or higher (obtained by sum all the indicators) classified as poor, while those with less than 33.3% deprivation score was classified as non-poor.

Explanatory Variables: - considering the dependent variable of the study the following variables are listed referring various literatures and empirical studies.

Sex of household head: Sex of household head is a nominal variable (1 = male, 0= female) according to various literatures and studies Female HHH have more vulneriable than Male HHH (Terefe et al., 2017). (World Bank Group, 2015b)

Marital status: Some pieces of literatures recommend that single headed households have high probability to escape from poverty than married. The assumption is that households headed by married individuals are supposed to be larger in family size (A.Esubalew, 2006). However, some studies suggest that married household heads have high probability to escape from poverty with sharing of resources(Fetsum, 2018) .

Education: there is direct relationship between education level of the households and multidimensional poverty status of HH. More educated households have more probability to be out of poverty or have less probability to be exposed for multidimensional poverty.

The Household size- it refers to the number of peoples who are dependent in the productive household beneficiaries. The more the number of dependent peoples are there, the family have more probability to be exposed for multidimenional poverty. Therefore, there might be positive relationship between multidimensional poverty and household size.

Health Status: it's believed that peoples with poor health condition have a poor living standard. And Lack of proper health will make people to become weak and unproductive(CSA, 2012).

Number of persons per room: Based on (UN-Habitat, 2020) sufficient living area was putted as an indicator for urban poverty measurement. Hence, the measurement scale is maximum of three persons per room or minimum of four square meters in area. high levels of household crowding can produce stress that leads to illness; and through shared physical proximity, household congestion contributes to the spread of communicable disease. Crowding is usually measured by the number of individuals of all ages per room (https://www.jrf.org.uk.)

Housing ownership: housing ownership is one major indicator for household's poverty status since it affects the affordability of house rent especially in urban areas(JRF, 2016). It's

believed that housing rent cost will exacerbate the poverty status of the households. Therefore, positive relationship will be expected from the result of the study.

Credit access: - Lack of access to credit may increase the vulnerability of the urban poor by reducing their ability to improve their economy. It also expected to adversely affect establishment of small business and improvement of their home facilities. In reverse, credit access may improve the lives of households with creating economic opportunities or may use as poverty cope strategies(Village et al., 2008).

Income instability: - refers to repeated changes in income that are unpredictable or an intentional and that do not lead to improving income circumstance of the Households. the households might be negatively affected by the variation of the income or other effects like inflation, or other factors (Misgana, 2018).

Table 3.3: Description of explanatory variables

Explanatory variable	Definition of variables	Variables type	Expected sign of MDP
Sex	Sex of household head: 0 for female, 1 for male. The sign is for female	Dummy	+
Household size	Size of household	Categorical	+/-
Marital status	Marital status of household head: 0 = single, 1= married, 2=divorced 3=windowed 4=married but live separately	Catagorical	+/-
Education	(illiterate =0, primary schooling =1, secondary= 2, college or university diploma 3)	categorical	-
Unemployed size/Dependency ratio	Number of dependents (not in the labor force)/ labor force of the household	Continuous	+
Health problem	Health problem or risk of illness within 45day prior to the survey. Yes=1, No=0.	Dummy	+/-
Number of persons/room	Number of persons per room or crowdedness	Continuous	+
Housing ownership	Housing ownerships : 1= Tegegna/parasite, 2=private 3=government 4=rent	Categorical	+
Credit access	Any Credit access for the households Yes=1, No=0.	Dummy	-
Income instability/variation	Household face substantial income variation yes=1 No=0	dummy	+

CHAPTER FOUR
Data Analysis and Interpretation

This chapter present the analysis of the collected raw data. Thus, basically, the chapter is classified with three sections, the first section introduce the socio demographic condition of the survey respondents. The second section focused on the assessment of the Multi-dimensional Poverty level of the respondents. Thirdly, the study analysed the determinant factors of the Multidimensional poverty in the mentioned place using Regression analysis, to identify the basic determinants of Urban Poverty. The analysis of the study has been conducted based on the primary and secondary data which was obtained from survey questionaries' interviews and secondary data of the institutions. The results obtained from the data analysed using STATA software version 14.

4.1 Demographic characteristic of the respondents

The socio demographic status of the respondents entails about the description of the Households unique or common characteristics in Gender, Age, Income, Marital status of the respondents in the study area. Basically, it describe the characteristics of the HHs target population(Salkind, 2010).

The analysis of demographic characteristics of UPSNP beneficiary households helps to answer an essential question regarding on identifying and assessing the Households Multidimensional deprivation status. Accordingly, the UPSNP office has classified the beneficiaries in to three categories. In the first Stage there are peoples with extreme poverty and need level while the second category is for Milled level and the third is for the reserves for the program. Currently, the program is supporting peoples in the first two categories. This study also focused on the beneficiaries who have been supported for years to observe the status of HHs and their change. Hence, this section attempts to highlight some of the demographic characteristics of the households.

Table 4.1: Demographic description of the households

		Frequency	**Percent**
Gender	Female	165	61
	Male	105	38.9
	Total	**270**	**100**
Sub city of respondents	Addis Ketema Sub city	136	50.4
	Kolfe Keranyo	134	49.6
	Total	**270**	**100**

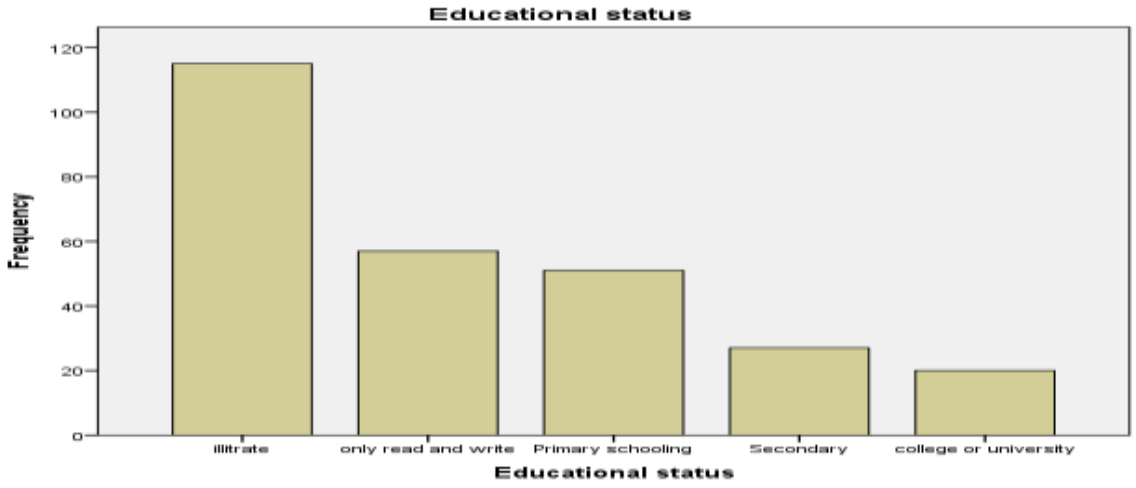
Age group in your HH	36-45	43	15.9
	46-55	129	47.8
	56-65	46	17.0
	66-70	22	8.1
	71-80	21	7.8
	26-35	9	3.3
	Total	**270**	**100.0**
Maritial status	Single	11	4
	Married	132	48
	Divorced	79	29
	Windowed	33	12
	Married but separated	15	5.6
	Total	**270**	**100**
Educational Status of HH	illiterate	115	42.6
	only read and write	57	21.1
	Primary schooling	51	18.9
	Secondary	27	10
	college or university	20	7.4
	Total	**270**	**100**

Source: own survey, 2021

Out of the total number of 270 respondents 165(61%) were females and 38.9% (105) were males. therefore, the finding in this study showed that, in both sub cities, majority of the households were female headed households. Concerning on the sub-city level of distribution of the respondents nearly or above half of them 136 (50.4%) are located on Addis Ketema Sub-city while the rest 134 (49.6%) are in Kolfe Keraniyo Sub-city.

As the finding indicated, the majority, 129(47.9%) of the respondents were in the age group 46-55years and the median age is 47. this followed by aged group of 56-65 which accounts 17%. While the small portioned groups are the age group between 26-35 (3.3%). This indicates that, although most of the respondents are young in their age and productive for employment, they are still under the productive safety net support and they are under poverty because of economical and socio political factors.

Figure 4.1: Education level of respondents



Source: own computation, 2021

According to literatures, Education believed to be an important factor in the poverty deprivation status of the peoples. Hence, the survey revealed that, a very large proportions 115 (42.6%) of respondents were illiterates and 21% having reading and writing skills. Respondents who completed primary education were about 18.9% and those 42 respondents are educated in the formal system up to high school were few compared with the above two which accounts 15.2% of the total respondent's size. In general, the education status of survey households was at a very low level. Very few respondents below 2% of the total respondents have only completed or joined colleges. Similarly Studies like (Getaneh, 2017) confirm that the educational level of the respondent is directly related to poverty and multidimensional poverty deprivation level of the households. Compared with the male headed households, females are illiterate than males with 73 and 42 persons respectively. Moreover, it was observed that there were high number of females compared with male headed households who finished primary education with 38 and 13 respectively.

Table 4.2: Educational and gender status of households

tabulate education status sex, chi2			
	Gender distribution		
Education Status	**Female**	**Male**	**Total**
Illiterate	73	42	115
Only read and write	25	32	57
Primary	38	13	51
Secondary	26	16	42

College &above	3	2	5
Total	**165**	**105**	**270**

** Pearson chi2(4) = 12.6226 Pr = 0.013*

Regarding on the marital status of the respondents, out of the total sample respondents, the highest numbers of participants 132 or (48.9%) are married and living together with their partner. furthermore, (12%) or 33 of the respondents are windowed and the rest (79) or (29%) of respondents are divorced. These imply that, having partner or being married may not secure individuals from poverty if they are not capable in supporting their families.

Table 4.3 marital status of the households

Marital status * Gender Cross tabulation			
Marital status	**Female**	**Male**	**Total**
Single	4	2	6
Married	96	90	186
Divorced	26	2	28
Windowed	30	5	35
Married but separated	9	6	15
Total	**165**	**105**	**270**

Source: own survey, 2021

4.1.1 Economic Status of the respondents

Regarding economic activities, people in both the study sub cities are engaged in different economic activities. The economic activity of the urban households is mixed including urban public works, handworks, government employment and self-employment. Some of the major self-employment economic activities of the people in these urban areas are small-trading, preparing and selling of local drinks, hotel services, daily construction works As per the key informants and observation during survey, the business locations for petty trade, sale of local drinks and handworks located in urban slums.

TABLE 4.4: Economic Status of the respondents

		Frequency	**Percent**	**Male (%)**	**Female (%)**
Employment Status of HH	Permanent Employment	65	24.1	46.2	53.8
	Temporary employment	90	33.3	45.6	54.4
	Pension	17	6.3	70.6	29.4
	Unemployed	98	36.3	22.4	77.6

	Total	**270**	**100**	**38.9%**	**61.1%**
Occupation Category	Informal	16	5.9	6.2	93.8
	Self-employed	87	32.2	62.1	37.9
	Private	7	2.6	57.1	42.9
	Government employed	33	12.2	27.3	72.7
	Other	127	47	29.1	70.9
	Total	**270**	**100**	**38.9**	**61.1%**
Source of Income	Petty-trade/Gulit	66	24.4	45.5	54.
	remitancy	49	18.1	38.8	61.2
	Direct Safetynet	20	7.4	35.0	65.0
	Sale of local dirinks	32	11.9	31.2	68.8
	sale food	27	10	25.9	74.1
	Hand work	28	10.4	71.4	28.6
	daily construction work	42	15.6	28.6	71.4
	other	6	2.2	73	27
	Total	**270**	**100**	**61.1%**	**38.9%**

Source: own survey, 2021

It has been indicated in the Table, majority of the respondent household heads (36.3%) are unemployed and does not have permanent source of income in their household. On the other hand, (33%) of the respondents are employed in temporary jobs whereas, the rest (24.1%) are in permanent jobs. From the data on the above table, the majority of (70%) the respondents are in unemployment and temporary jobs. The remaining 8% of the respondents are pensioner.

The self-employed household heads are engaged in different economic activities to generate income for their households. As shown in Table, About 66 (24.4%) of the respondents are engaged in petty-trade followed by other sources such as remittance (18.1%) and daily construction work of (15.6%) of the respondents and sale of local drinks and sale of foods at (11.9%) and (10%) are the major source of income for the household respondents.

Table 4.5 Income status of the Households

Average Income status				
Average Income	**Frequency**	**Percent**	**Female**	**Male**
0-500	55	20.4	29.1%	6.7%
501-700	5	1.9	2.4%	1.0%
701-1000	106	39.3	24.8%	61.9%
1001-1200	12	4.4	5.5%	2.9%
1201-1500	33	12.2	15.8%	6.7%

1501-2000	29	10.7	6.7%	17.1%
2001-2500	2	0.7	-	1.9%
2501-3000	20	7.4	10.9%	1.9%
Above 3000	8	3	4.8%	
Total	**270**	**100**	**100**	**100**

Source: own survey, 2021

From the survey data it was noted that majority of the respondents around 106 (39.4%) average monthly income is between 700Br-1000Br. Moreover, around (20%) of the respondent's average monthly income is below 500Br. From the total number of respondents, around 12% and 10% of the respondent's monthly average income is between 1200-1500 and 1500-2000 respectively. In general more than (60%) of the respondent's average income is below 1000Br. In the meantime, the mean average income of the respondents is around 1265Br. The average income result is much less than the study result of (Wold Bank, 2017) which shows 2253Br. This may be because of severe effect of income poverty in the area. If we take the average daily amount from the monthly income of the Households are around 42Br which is below 1USD per day and by far below the international income poverty standard. Therefore, it implies that the income poverty of the households is very high in the specified study area. The female headed households earn the low monthly average income up to 500Br per month (29.1%) whereas, only (6.7%) of male headed respondents earn the amount. Majority (61.9%) male headed households earn average monthly income of (700-1000Br) while (24%) of female headed households earn the income.

Table 4.6 Expenditure status of the Households

Expenditure status of the Households				
Average Expenditure	**Frequency**	**Percent**	**Male**	**Female**
0-500	58	21.5	22.9%	20.6%
501-800	41	15.2	26.7%	7.9%
801-1000	44	16.3	14.3%	17.6%
1001-1200	48	17.8	8.6%	23.6%
1201-1500	16	5.9	4.8%	6.7%
1501-2000	32	11.9	19.0%	7.3%
2001-2500	5	1.9	1.9%	1.8%
Above 2501	26	9.6	1.9%	14.5%

Total	**270**	**100**	**100%**	**100%**

Source: own survey, 2021

Expenditure and Income are the related economic aspects; peoples tend to spend more as their income increases. From the survey, it was noted that, majority of the respondents (21%) have an expenditure is up to 500Br. The second largest group of respondents (17.8%) is replied that their expenditure fall around 1000Br-1200Br. In the third largest group people's expenditure is around 500Br-800Br. In general the average monthly expenditure between below and 1200Br is around 70.8%. This implies that, significant number of respondents is below 1200Br. In addition, the mean monthly expenditure of the respondents is around 1236.33Br. Considering the monthly income of the respondents with comparison of the family size of the respondents, low amount of monthly expenditures were recorded than the expected standards. Female headed households have highest expenditures of 1001Br-1200Br with (23.6%) and (8.6%) for male headed households. Furthermore, most households perceived that the cash transfer program has significantly contributed in supporting the income of the households and improving the expenditure of the households.

4.1.1.2 Saving of the Households

Saving is the amount of money that is not spent. It's also the remaining balance from the expenditure of the individuals. Though saving is commonly done in terms of monitory value, it could also be done in kind.

Table 4.6 saving of households

Saving of the Households				
	Frequency	**Percent**	**Male**	**Female**
Yes	98	36.3	37%	36%
No	172	63.7	63%	64%
Total	**270**	**100.0**	**100%**	**100%**

Source: own survey, 2021

Accordingly, Majority (63%) of the respondents doesn't have saving in their households. only 36.3% of the respondents have saving. Although there is slight difference, male headed households have better saving (37%) than male headed savings (35%). Lack of saving in poor's may relate with high expenditure and less income of the households. Almost all

households perceived that safety net program was important and encouraged them to save from their income.

4.1.1.3 Credit access of the households

Credit access is among the four poverty alleviation strategies. The strategies are Community organisations based micro-financing, capability and social security, market-based, and good governance. Therefore, from the survey, around 36% respondents expressed that, they have credit access, whereas, (63.7%) didn't have access for credit service. In contrast, most of female headed households (61%) don't benefit credit access compared with male headed households (59%). Similarly, The result confirm the empirical studies finding of (Eskezia, 2011) This might be arisen from lack of awareness on females or lack of available women focused financing sources.

Table 4.7 Access to credit service

Credit access of the Households				
	Frequency	**Percent**	**Male**	**Female**
Yes	108	36.3	41%	39%
No	162	63.7	59%	61%
Total	**270**	**100.0**	**100%**	**100%**

Although there are determinant factors which expose the HHs for multidimensional poverty, Unemployed size in the family plays the biggest contribution in exacerbating the poverty of the households. Unemployed could be elders, jobless youth or children's below working age and others who are not actively working. According to the collected data, (41%) of the respondents have 2-3 unemployed size in their households. Moreover, around (37%) of the respondent HH has 3-4 unemployed family members.

Table 4.8 Unemployed Sizes of the Households

Unemployed Size of the households				
Unemployed Size	**Frequency**	**Percent**	Male HH	Female HH
0-1	17	6.3	6.7%	6.1%
2-3	113	41.9	36.2%	45.5%
4-5	100	37.0	46.7%	30.9%

6-7	39	14.4	10.5%	17.0%
8-9	1	.4	0.1	0.6%
Total	**270**	**100.0**	**100.0**	**100.0**

Source: own survey, 2021

Overall from the two categories of around 77% of the respondents have unemployed size of 2-4 person in their families. In addition the mean unemployed family size of the respondents is around 4. This result is almost similar with (Wold Bank, 2017) which indicate the average size of the city is 4.2. Therefore, the unemployed size of the respondents have significant negative relation with being poor since the vulnerability to be poor rise while there is more unemployed members are in the Household (Misgina, 2018)(Yibah 2014).

TABLE 4.9 Space sufficiency in the household

Three or more Person Per room				
	Frequency	**Percent**	**Addis Ketema**	**Kolfe Keraniyo**
Yes	108	40.0	81.3%	79.4%
No	162	60.0	81.3%	18.7%
Total	**270**	**100.0**	**100%**	**100%**

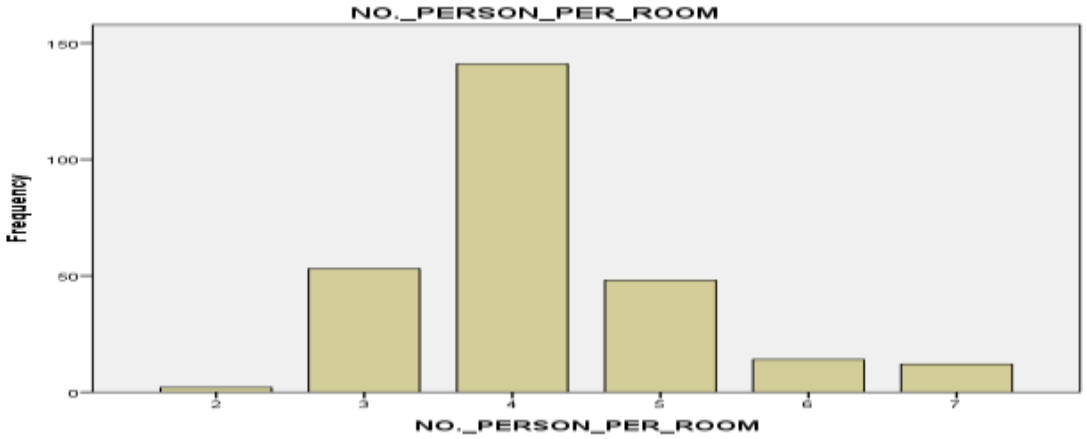
Regarding persons per room, the respondents were asked whether there 3 or more persons living in one room or not, and (63.5%) of the respondents have confirm that there are 3 or more peoples who are living in one room. Whereas, 36.5% of the respondents rejected the presence of three or more person how live in their households. According to the observation it was noted that some households live densely in small space rooms. It was also observed that some households share rooms with their neighbours and relatives.

Table 4.10 Person per room

Number of person per room		
No. of persons per room	**Frequency**	**Percent**
2	2	0.7
3	53	19.6
4	141	52.2
5	48	17.8

6	14	5.2
7	12	4.4
TOTAL	**270**	**100.0**

Figure 4.2: No. of person per room



During the assessment of the economic condition of the households, evaluating the individual expenditure level of the respondents is very essential. Question related to the main expenditure of the households was forwarded for the respondents and majority of the respondents 186 (68.9%) answered that; food consumption is the main expenditure. The second main expenditure for the 44 or (17%) of the respondents is house rental cost and around 11% of the respondents answered that their main expenditure is electric and water utility expense. Therefore majority of the respondent's expenses are connected with food, rental and electric and water bill expenses.

Table 4.11 Main expenditure of households

Main expenditure of HH				
	Frequency	**Percent**	**Male**	**Female**
Food consumption	186	68.9	45%	54.8%
Education fee	3	1.1	10%	90%
Medical cost	3	1.1	92%	8%
House Rent	47	17.4	36%	63.8%
Water and electric fee	31	11.5	3.2%	96.8%
Total	**270**	**100**	**38.9%**	**61.1%**

The macroeconomic condition like high rate inflation, high unemployment rate of the country are believed to be the main determinant factors in the poverty level of the households. Poor's are highly vulnerable for Inflation and unemployment and remain on poverty traps. Of that of the total population of the study group, the majority of the respondent's 235 or 87% expressed that they are highly vulnerable for the income variation because of their temporary jobs and inflation. While the remaining (13%) of the respondent's answered that they don't have faced significant change or variation in their income. Moreover, the households have a positive perception towards to the relevance of the safety net program in health protection of the households.

4.12 Income status of the households

Income shortage and Variation				
	Frequency	**Percent**	**Male**	**Female**
yes	235	87	87.6%	86.7%
No	35	13	12.4%	13.3%
Total	**270**	**100**	**100%**	**100%**
Major reason for Income Shortage				
Inflation	128	47.4	41.90%	50.90%
illness	26	9.6	10.50%	9.10%
Temporary Jobs	33	12.2	13.30%	11.50%
house rent cost	30	11.1	13.30%	9.70%
high cost in the family	41	15.2	15.20%	15.20%
Other	12	4.4	5.70%	3.60%
Total	**270**	**100**	**100**	**100**

Income shortage and income variability are the main economic challenges in the income poverty of the households. Consequently, these factors contribute a lot in exposing peoples for a multidimensional poverty. In order to understand these, respondents were asked whether they have experienced any income shortage in the past three months or not and answered that around 183 or (67.8%) have faced an income shortage problem during the specified time. In general from the above responses we can understand that poor are vulnerable for income variation and shortage. Respondents were asked about their main reason for income shortage and variation and around 128 or 47.4% of them answered that inflation. Secondly, 33 of the

respondents or 15% of them answered that their main reason for income variation is because of their miscellaneous expenses in their families.

4.2 Multidimensional Poverty status of Households

4.2.1 Education status of the Households

Education is important indicator for human development. Question related with school attendance or year of schooling were forwarded and asked whether there is any member of the family who didn't complete a primary school. Accordingly, majority of the respondents around 84% of them expressed that there is a family member who didn't complete primary schooling while the 16% of the respondents answered that there is no family members in the HH who didn't complete primary school. On the other hand, 86% female headed households are educationally deprived and the rest 14% are not. Whereas 84% of male headed households are educationally deprived and 16% are not.

Table 4.13: Education status of the households

Any HH member didn't complete Primary				
	Frequency	**Percent**	**Male**	**Female**
yes	228	84.4	84%	86%
no	42	15.6	16%	14%
Total	**270**	**100**	**100%**	**100%**
Children Age b/n 7-15not attending school				
Yes	39	14.4	13%	19%
No	231	85.6	87%	81%
Total	**270**	**100**	**100%**	**100%**

The children's schooling who are in the age group between 7 and 15 were assessed and almost 85.6% of the respondents children attend school and the remain 14% of the respondents HH children aged between 7 to 15 attend school. Although the children's who didn't attend the school at specified age is very small, the main reason behind the dropout of the school of the children were related with supporting the families with daily work and lack of income for schooling. However, parents agreed that the program has been indirectly supporting them to send their children's to school since most of the expensed are already covered by the cash received from the program.

4.2.2 Health Problem

Poor health condition has a relation with multidimensional poverty status of the households. Around 60.4% of the respondents have faced a major health problem during the past 45 days in prior to study. And the remaining 39.6% of the respondents have expressed that they didn't have faced a major health problem in the specified time. From the respondents who faced a major health problem about 41.1% of them have diarrhoea and 21% are faced injuries while the rest 37.1% of the respondents are faced with other internal problems together with malaria, tuberculosis and dental disease.

Table 4.14 Health condition of the households

Major health problem				
	Frequency	**Percent**	**MaleHH%**	**FemaleHH%**
Yes	163	60.4	62%	58%
No	107	39.6	38%	42%
Total	**270**	**100.0**	100%	100%
Main reason for Income Shortage				
	Frequency	**Percent**	**Male HH%**	**Female HH%**
Diarrhoea	67	41.1	36.2%	34.5%
Injury	35	21.4	13.3%	10.3%
Tuberculosis	25	15.3	10.5%	13.3%
Dental	15	11.1	12.4%	13.3%
Malaria	9	9.2	6.7%	6.1%
Other	12	7.3	21.0%	22.4%
Total	**163**	**100%**	**100%**	**100%**

Health treatment and proper health check-up, is key for the prevention and post treatment of health condition of the households. Among the total respondents, around 68.5% the respondents didn't perceive that they have got a proper health treatment for their illness while the remaining 35.1% perceive that they already have got better health treatment. Moreover, it was also observed that, majority of the respondents 68.5% didn't get a Health check-up and the remaining 31.5% have already proper health check-ups.

Table 4.15 households Health Insurance

Health Insurance

	Frequency	Percent	Male HH%	Female HH%
Yes	96	35.6	42%	32%
No	174	64.4	58%	69%
Total	**270**	**100.0**	**100%**	**100%**

Health insurance is one way of reducing the health problems and risks financially. The government has already incorporated the relevance of the health insurance in securing the citizens from emergency illness conditions. Accordingly the government has supported the establishment of health insurance for the provision of its service for small income holders. However, the number of insurers and their capacity to cover membership subscription fees are still in the question. 64% of the respondents didn't have the health insurance while the remaining 36% of the respondents own health insurance.

4.2.2.1 Health Expenditure

People's expenditure for their health at some extent related with their health condition and income status of the households. In this study, it was observed that around 29% of respondents spend 100Br-500Br and similarly around 28% of the other respondents spend 50Br-100Br while 27% of the respondents spend 0-50Br expenditure. Concerning on the source of fund for health expenditure, around 64% of the respondents use the government as a source of fund while the remaining 36% of the respondents are self-financers.

Table 4.16 Health expenditure of the households

Health Expenditure				
	Frequency	**Percent**	**Male**	**Female**
0-50Br	73	27.0	36%	21%
50Br-100Br	78	28.9	23%	33%
100Br-500Br	78	28.9	9%	42%
500Br-1000Br	35	13.0	29%	3%
More than 1000Br	6	2.2	4%	1%
Total	**270**	**100.0**	**100%**	**100%**

4.2.2.3 Child Mortality

Based on the SDG 3 health target, the children's death whose age is below 18 in previous five years prior to the study was assessed and observed that, the child mortality rate for the age group below 18years was indicated that majority of the respondent's 93% showed that they don't observe any death in their family while the rest 9% have confirmed the existence of the child mortality in their HH in the specified period. Though the deprivation is very small, from the total number of affected bodies majorities (13%) are in Addis Ktema Subcity whereas, the rest 7% are from kolfe keraniyo subcity.

Table 4.17: child mortality

<18 Age Child Mortality				
	Frequency	**Percent**	**Addis Ketema**	**Kolfe keraniyo**
Yes	26	9.6	13%	7%
No	244	90.4	87%	93%
Total	**270**	**100.0**	**100%**	**100%**

4.2.3 Access to Clean Water

The availability of clean water is one of the main indicators for the absence of multidimensional poverty in the HH. It's one of the main contributing factors in the health condition of children's, and the HH improved welfare condition. Of that of the total respondent's, around 75% of the majority respondent's confirmed that, communal water tap is their main water source for their HH. Whereas, 8% of the respondent's use private water taps the rest 17% of respondent's buy water from shops and communal places. Based on the observation, most households use communal water service and the main challenge for the households are the absence of water per week.

Table 4.18: Households water access

		Frequency	**Percent**	**Addis (%)**	**Kolfe (%)**
Availability of wash service	Yes	153	56.7	59	55
	No	117	43.3	41	46

	Total	**270**	**100**	**100**	**100**
Water availability problem	Yes	223	86.3	89	84
	No	37	13.7	11	16
	Total	**270**	**100**	**100**	**100**
Weekly Water Availability	Once a week	155	57.4	67	4
	twice a week	70	25.9	24	28
	three or four days per week	45	16.7	10	24
	Total	**270**	**100**	**100**	**100**
Your HH water source	Private tap water with pipe	88	8	9	8
	Communal tap outside	158	75	71	78
	Buying water products	24	17	20	14
	Total	**270**	**100**	**100**	**100**

Source: own survey, 2021

The availability of access to clean water could be perceived by in different perspectives; the frequency for obtaining the water service is also a problem and the main concern for WASH activities. The majority of the respondents around (86.3%) of the respondents have raised the problem of water availability while the rest (14%) don't have a problem of water availability in their HH. Regarding on the weekly water availability, it was also observed that, majority of the respondents 58% has once a week access for water while the 26% of the respondents access twice a week. Only the remaining (17%) has three to fourth day access of water per week. This implies that, although there is sufficient number of tap pipes in private and communal areas with the near distance, still water distribution per week and low discharge amount of water remained as a challenge. Moreover from the interview it was observed that the quality of the water and the affordability of water tanker products to store the clean water is a problem for households.

It's necessary also to encourage HH to have efficient indoor or outdoor Household wash system. The availability of such system has an important significant impact on liquid waste disposal system. Out of the total respondents, majority or (57%) of them has home wash system while the remaining 43% didn't have the system.

Table 4.19 water access and its distance

Distance of water tap pipe from your home/take >30min walk				
	Frequency	**Percent**	**Addis Ketema**	**Kolfe keraniyo**
Very far	15	5.5	7%	5.2%

At fair distance	113	41.8	34%	44%
Not far	142	52.6	60%	46%
Total	**270**	**100.0**	**100%**	**100%**

Source: own survey, 2021

Water pipe/tap distance from home is one of indicator for living standards of the households(OPHI, 2020). The standard distance for the indicator is above 30mins walk distance from home. Any household far from the tap water above the indicator considered as deprived. Accordingly, above half of the respondents perceived that the tap water either private or communal is not far from their home. Hence, 52% of the respondents confirmed that the water taps are not far from their homes while the 5.5% of the respondent's confirmed that water sources are very far from the residential of the HH and the remain (41.8%) of the respondents have perceived that it has fair distance from their home. In general, above (95%) of the respondents confirm the absence of water tap distance from their home. The main reason for this could be the presence of fair water pipe distribution in center of the city with the advantage of infrastructure urbanisation.

4.2.4 Latrine Service

Having modern WASH service is important for HHs to create sustainable social living conditions. Majority of the respondents around (65%) of the respondents have shared ventilated pit latrine while the rest (15%) have private ventilated pit. And also others were using private traditional ventilated latrine, shared traditional pit and public toilets with 8.3%, (6.3%), (5.2%) response rate respectively. Concerning on the quality of the latrine service (81.1%) of the respondents perceived that the latrine has a problem whereas, (18.9%) didn't have a problem in latrine service. This implies that large numbers of populations are using low qualities public latrine services which are built by the government and NGOs and they require frequent maintenances. In addition, the households believe that, the safety net program majorly contributed in the household's latrine and drainage cleaning and maintenance services.

Table 4.20: latrine service of the households

		Frequency	Percent
Latrine Service	Private ventilated Pit latrine	41	15.2
	shared/between neighbours/ ventilated Pit latrine	176	65.2
	Private Pit latrines with traditional materials	22	8.1
	shared/between neighbours/	17	6.3

	Pit latrines with traditional materials		
	Public toilets	14	5.2
	Total	**270**	**100**
Major problem in Latrine services	Yes	219	81.1
	No	51	18.9
	Total	**270**	**100**
	Inadequate number of latrines/toilets	90	33.3
	Non-functional latrines	51	18.9
	Absence of latrine	15	5.6
	Frequent fill of pit	97	35.9
	other	17	6.3
	Total	**270**	**100**

Majority of the respondents has reported that frequent fill of latrine pit (35.9%), absence of the sufficient latrine services per household (33.1%), existence of non-functional latrine services (18.9%) were the main challenges in Latrine service of the households.

4.2.3.1 Drainage System

The liquid waste treatment in related with drainage system of the household was assessed with the survey. The result showed that around 223(82%) of the households have drainage system but have a significant problems whereas, 47(17%) of respondents reported that there are enough drainage system which are functional and giving services. It was observed that although there are existed drainage and sewerage systems most of them are not functional and didn't allow the liquid waste to pass through the canals, due to the lack of maintenance and filed with solid materials like rocks and trashes.

Table 4.21: sewerage problems of the households

Major problems in sewerage system				
	Frequency	**Percent**	**Addis Ktema**	**Kolfe Keraniyo**
Yes	223	82.6	61%	54%
No	47	17.4	39%	46%
Total	**270**	**100**	**100%**	**100%**

Source: own survey, 2021

4.3 Electric energy distribution and clean cooking activities

Fair Energy consumption is one indicator for improved livelihood in different countries. Households which uses smart energy sources for their daily cooking's and other activities are more efficient end healthy. Lack of access for sustainable energy consumption is one indicator for poverty deprivation. The electric distribution in most capital cities is fair and well improved. 261 (97%) of the respondents have electric service and only 9(3%) of the respondents reported that they don't have the electric services. Around 55% of the respondents use shared energy meter with their and 39.3% of respondents access energy with their private meter whereas, the remaining respondents access their utility source from other sources like local kerosene lump, butane gas.

Table 4.22: electric service of the households

	Response	**Frequency**	**Percent**
Electric service beneficiary	Yes	261	96.7
	No	9	3.3
	Total	**270**	**100**
Source of electric services	Electricity meter- private	106	39.3
	Electricity meter- shared with neighbour	149	55.2
	Other	15	5.6
	Total	**270**	**100**
Source of energy for cooking	Traditional power sources like Wood/ Charcoal/	164	60.7
	Electric power	92	34.1
	Butane gas	14	5.2
	Total	**270**	**100**
Kind of Kitchen	Private	108	40
	Communal	162	60
	Total	**270**	**100**

Smart and modern clean cooking energy sources are essential for households to have healthy and improved welfare. However, Households under poverty condition may use alternative and affordable other sources. (34.1%)164 respondents of the households use the electric services as their main energy source whereas, 164 34.1% of respondents use traditional energy sources like charcoal, wood, animal dung and other material which adverse effect on their health. While the remaining respondents use butane gas and kerosene for their daily cooking services. Furthermore majority of the respondents 60% use communal kitchens while 40% of respondents have private kitchens.

From the survey it observed that majority of the respondents relied on the traditional energy sources for their daily cooking and backing activities in shared communal kitchens. The reasons for not switching from traditional energy sources related with high cost of modern energy sources like stoves, baking ovens(47%) and high cost of energy for electric utilities(42.6%) and other related reasons like lack of access.

4.3.1 Living conditions of the HH

Family size and number of persons per room are one the main indicators in poverty assessment and indicator. Questions related with the number of person per room for households were forwarded and 217(80.4%) of the respondents confirmed the existence of three or more person per room in their HH whereas, 53 (19.6%) respondents didn't have problem with person per room in their HH. majority of the respondents 51% have 4 and above person per room in their households. Overall, around 79% of the respondents have 4 or more than person per room in their households. The mean value of person per room is therefore 4.2 and 0.98 significant level. Moreover, over 80% of the respondents from the survey agree with the presence of room insufficiency whereas, 20% perceived that they have fair distribution of room per person.

Table 4.23: Living standards

		Frequency	Percent
Person per room	2	2	.7
	3	53	19.6
	4	141	52.2
	5	48	17.8
	6	14	5.2
	7	12	4.4
	Total	**270**	**100.0**
Floor of the room	Both traditional and modern	42	15.6
	Traditional material-soil	144	53.3
	Modern-cement, ceramic	84	31.1
	Total	**270**	**100.0**
roof of the room	Iron Sheet	159	58.9
	Plastic thatch	58	21.5
	Others	53	19.6
	Total	270	100.0
wall of the room	Brick	42	15.6
	Mud and wood	144	53.3
	Plastics	84	31.1

	Total	**270**	**100.0**
Roof, wall, floor condition of the room	Good	51	18.9
	Partially ruined	143	53.0
	Very old condition	76	28.1
	Total	**270**	**100.0**

Source: own survey, 2021

Household's room floor and roof conditions are important indicators in the multidimensional poverty status of the households. 41.1% of the respondents house is made from iron sheet whereas, 53(19.6%) are made up of plastic sheets and the rest 33% are made up from other materials.

Figure 4-3: Housing Conditions of the Households

However, the status of the housing was very old and the roof condition of the respondents was depleted and leaks. From the field observation it was noted that most of participants house are very old made from mud, wood and light plastic materials. Majority of the respondents perceived that, the program has contributed positively in maintenance of their house even though the change is very slight. Moreover, they agree with the positive outcome of the program in the support of the program in asset ownership like mobile phone, radio and some inexpensive items.

4.4 contribution of the program for multidimensional poverty reduction

As an introduction the key informants were asked to give some explanation of the multidimensional poverty status of the households in the study areas and answered it as follows:

> ‘*The study area is located at a centre of the city and known with slum condition. There are many peoples who live under the poverty condition. Commonly the houses are unsafe to live with leak walls and roof and densely packed homes with poor house qualities. Since the place is at the heart of the country, productive households spend their times with additional working opportunities like daily construction work, petty trade and daily wage activities. The places are uncomfortable for living because of various challenges on poor qualities of latrine services, low qualities of drainage system and other social services. The government is working on poverty reduction projects specifically safety net programs.’*

Perception of the key informant respondents on the effectiveness of the program towards to reduction of the multidimensional poverty status of the households was assessed. Hence, the first questions were to what extent does the program has contributed in the improvement of the educational status of the households and their families.

> *‘The cash transfer program was important in the reduction of economic shocks in the households. Besides the income improvement of the households, some parents are also able to send their children to schools. Although parents didn’t incur educational fees for their children’s, the income from the program was supporting them for food and other miscellaneous costs for their children’s. Indirectly the program positively contributed to reduce the educational derivational status of the households. Though the effectiveness of the contribution of the program on the education of the children’s is not yet researched, the satisfaction of their parents implies the positive impact of the program’.*

The health condition of the HH is a key indicator for multidimensional poverty. To assess the level of contribution in health safety of the deprivation of the peoples were assessed and the following answer was noted by the KolfeKeraniyo subcity.

> *‘Healthy peoples are productive in their jobs and education; however health expenditure is negative determinant factor which affect poor’s income. In this regard, the cash transfer from the program effectively contributes for the household’s health status.as I have observed; Beneficiaries save certain amount of money and spend some of their income for their health expenditure. Furthermore, addressing the food security problem was the main aim of the program and positively contributes for health condition of the HH with improvement of consumption pattern of the households and reduction of malnourished households. In addition, the elders and severely sick households have abled to protect their health with income from unconditional component of the program. Furthermore, households get frequent information on health issues and have an opportunity to discuss each other.*

Questions related with the Living standards of the households and support of the program to reduce the adverse effect was assessed. And key indicators such as Sanitation, cooking fuel,

water and electricity availability, housing status and asset ownership was taken as a basis of evaluation on the contribution of the program. Therefore, the subcity PSNP office head for Addis Ketema answered as follows:

> *'The program supports both able and disables bodies. In this context, those who are employed are already having better asset ownership. In addition, the program supported them to own more goods. Sanitation is major problem in urban areas specially in slum areas, although the program beneficiaries didn't get any further cash support for building toilets, the program by itself built public latrines for many households, the greenery and city cleaning activities also a part of this component which aims to support the households in having clean and better sanitary and drainage system. Therefore, I believe the program has played an important role in expanding latrine services for poor's. There are some peoples who became users for clean cooking materials in their households. However, the program has a gap in these areas. The program users doesn't have any difference with others in utilising the product, they face similar challenges with others. Water service is available in both private and communal water taps for the households. There is better performance in distribution of the service. However, similar to other users, the challenge is in water availability frequency per week. The contribution of the program in this regard is very less. There needs to be reserve water tanks at least to reduce the problem of water shortage. Moreover, housing is one of the major challenges for the households. Those who live on rent will face challenge except few programs on old house maintenance; the program didn't offer special support in these areas'*

4.5 Multidimensional poverty Status and MPI in Addis ketema and Kolfe sub-cities

The Multidimensional Poverty Index (MPI) is important tool to measure the acute poverty status of the households. It was introduced by the UNDP's Human Development Report Office and OPHI to track deprivation across three dimensions and 10 indicators: health (child mortality, nutrition), education (years of schooling, enrolment), and living standards (water, sanitation, electricity, cooking fuel, floor, assets).

First, the household experiences on the 10 deprivations indicators were identified, and then identifies households as poor if they suffer deprivations across one -third or more than that of the weighted indicators. Based on the (Alkire & Foster, 2011)methodology. The MPI is created by multiplying together two numbers: the percentage of the population who are poor; and the average percentage of the weighted indicators that poor people experience (intensity). The intensity level of the households indicates the poorest of the poor. The MPI reflects those in acute poverty; alternative cut-offs are used to report those who are vulnerable and those in

severe poverty. Therefore, in this study, level of intensity and deprivation status of the households was calculated, In order to understand the level of the Multidimensional poverty index.

$MPI =$ H(The incidence level of poverty) $*$ A (average Intensity of the poor's)

Table 4.24 MDP status with sub cities

Number of deprived HHs	Sub city		Total
	Addis Ketema Sub City	Kolfe keranyo Sub City	
Head count ratio /H/	0.542	0.672	0.528
Intensity of poverty /A/	0.62	0.131	0.255
Multidimensional poverty index	0.542	0.127	0.133

In Computing MPI of the households is necessary to calculate Head count ratio first. Then, In order to calculate the amount, the multidimensional poor peoples were identified and the variable assigned as *q* and *n* is the total number of sample population in the study.

$$(H)Head\ Count\ Ratio = \frac{Number\ of\ Multidimensional\ Poor\ persons}{Total\ Sample\ Population}$$

$$(A)Intensity = \frac{\sum_{i=0}^{n} Censored\ deprivation\ score\ of\ individuals}{Number\ of\ Peoples\ Multidimenionally\ poor}$$

Taking the above mentioned indicators as a base, with considering a person as a multidimensional poor or deprived or not if the household is fell below the threshold in at least in four of the indicators. Hence, average sum of percentage of multidimensional poor peoples in Addis Ketema and Kolfe keraniyo sub-cities are as follows:-

Table 4.25 MDP poor and non-poor households

Number of deprived HHs	Sub city		Total
	Addis Ketema Sub City	Kolfe keranyo Sub City	
MDP non-poor HH size	330	355	685
MDP poor persons /q/	384	378	762
Total /n/	714	733	1447

Sum of Deprivation score $\sum_{i=0}^{pn} Ci$	45.126	41.38	86.5
Head count ratio /H/ q/n	0.537	0.515	0.526
Intensity of poverty /A/ $\sum_{i=0}^{n} Ci/q$	0.26	0.25	0.255
Multidimensional poverty index	0.139	0.127	0.133

4.5.1 MPI result for the sub-cities

Since MPI is the result of the head count ratio for the deprived household's size and the intensity of the poverty, it is the result of sum of the deprivation score multiplied by the HH size. And it indicates the share of the HH deprived by the agreed accepted indicators.

In general the MPI result of the two sub cities households is around 13.3% and the deprivation level in both sub cities are varied. Accordingly, the average deprivation distribution for Addis Ketema subcity is 14% and for Kolfe-keranio sub city is 12.7%. Hence, the comparison result for Addis Ketema subcity MDP deprivation is lower than other empirical study's findings such as the non-capital cities in sebeya 23% but higher tha zalambesa 13% (OPHI, 2020) (Fetsum, 2018). And lower than Multidimensional Poverty Index of 26% of Felege Birhan and 30% Wojel (Getaneh, 2017). The reason behind the higher rate of MPI could be linked with high rate of vulnerability for poverty in Addis Ababa in the mentioned sub cities. As it has been briefly discussed by(OPHI, 2020) compared with other region, Addis Ababa has the highest vulnerable rate 19%. On top of that, the two sub cities are heart of the city and situated at the slum part of the city where there is high number of deprived households are located.

Overall, the study result for the two sub cities is comparable with other regions of the urban cities in Ethiopia. Moreover, the deprivation level for the Addis Ketema sub city is in acute and severe level when it compared with other urban MPI levels. However, the reason behind the variation in the result with other studies could be different but, majorly, the differentiation in the indicators. It's advisable to contextualise the indicators of MDP across the regions by

considering the status the cities. All most all of the indicators in this study, has utilised the global accepted indicators. On that account, the indicator in the year of schooling is very different from other empirical studies such as (Getaneh, 2017) which is Grade 6 while this study utilizes grade 8th based on the globally accepted indicator.

Moreover, the only change that has been made was on the indicator for improved latrine facilities. Since its difficult to find HH which have improved latrine facilities based on the SDG standard which says 'The household's sanitation facility is not improved (according to SDG guidelines) or it is improved but shared with other households' modification has been made with 'households which didn't have ventilated latrine service or communal shared latrine service users were considered as deprived'.

In addition, the indicator for health 'any adult less than 70 years of age or any child for whom there is nutritional information is undernourished' was changed to 'Major health problem or disability occurred and properly untreated health condition' was taken as an indicator similar to (Getaneh, 2017). Addis Ababa is urban centre and a capital city for Ethiopia and majority of the public sector institutions including higher institutions and schools situated in the city. In related to this, the educational status of the households expected to be higher compared to other non-capital cities and rural regions of the country. However, these urban centers are also the destination for the rural urban migrants which look for employment opportunities and access to improved life styles. Therefore, the MPI educational status of the respondents also revealed that there are higher amount of illiterate households in the study areas.

4.6 Share of Deprivation Indicators for Multidimensional poverty status

In order to identify the major contributing indicators in multidimensional poverty status of the households, it's important to determine the censored head count ratio as per the suggestion of the (Alkire & Jahan, 2018) and obtained with sum of the number of people in the household who are deprived in the indicator and dividing by the total HH size.

Table 4.26: Education deprivation status of the households

Education					
Dimension	**Sub cities**	**Indicators**			
		Head count ratio	**Point weight**	**HC*wigh**	**Percent %**

Age 7-15 not attending school	Addis Ketema	0.389	0.167	0.06	7.23%
	Kolfe keraniyo	0.263	0.167	0.04	6.23%
	Total	0.326	0.167	0.05	7.23%
Any family member below 8th grade	Addis Ketema	0.455	0.167	0.075	30.2%
	Kolfe keraniyo	0.404	0.167	0.067	28.3%
	Total	0.429	0.167	0.071	29.2%

Therefore based on the MPI allocation the highest contributors for the Multidimensional poverty status were 'Number of household member aged 15 years or older has completed eight years of schooling' with (30.2%) in Addis Ketema Sub city and (28.2%) in kolfe keraniyo sub city. on the other hand, the educational status implication for 'school aged children's currently not attending school' is more or less a small contributor for the deprivation indicator with (7.23%).

Table 4.27 Health deprivation status of the households

Health					
Dimension	**Sub cities**	**Indicators**			
		Head count ratio	**Point weight**	**HC*wigh**	**Percent %**
Seriously ill or dis disability in the past 45 days	Addis Ketema	0.241	0.167	0.040	24.16%
	Kolfe keraniyo	0.055	0.167	0.009	23.16%
	Total	0.148	0.167	0.048	23.16%
Any family member below 8th grade	Addis Ketema	0.067	0.167	0.011	2.1%
	Kolfe keraniyo	0.064	0.167	0.010	2.2%
	Total	0.148	0.167	0.010	2.15%

Major health problem and disability condition or reported death prior to the study was around (24.16%) in Addis Ketema sbcity while its (23.1%) in kolfe keraniyo subcity. Although the access to health facility is improving over a time, still proactive disease preventive method is not yet adopted in poor household communities. Moreover, deprivation on sanitation or lack

of improved latrine was the other major contributing indicator with nearly 6% in Addis Ketema subcity. The deprivation level on kolf keraniyo sbu city is 4.5%. The least contributor factor indicator is child morbidity 'any child (<18years of Age) has died in the family in the five-year period preceding the survey' the rate which is 2.1% and 2.2% in Addis Ketema and kolfe keraniyo subcity repectively. The main reason for the decline in the number of child death rate is the access for health facilities in the near distance and availability of information for beneficiaries. The result in Kolfe keranio sub city is similarly higher in Health and schooling indicators its 24.1% in Addis Ketema Subcity and (23.1%) and Kolfe Subcity. On the other hand, in both sub cities improved water availability is (1.3%) in Addis Ketema and (1.06%) in kolfe keraniyo subcity. while its (3.74% for Addis Ketema Subcity 3.6% in kolfe keraniyo in availability of electricity deprivations are the least indicators.

Table 4.28 living standard status of the households

Dimension	Indicators	Sub cities	Headcount* Indicator	Headcount	Point of Indicator	Percent
Living Standard	access to improved drinking water in near distance	Addis Ketema	0.012	0.264	0.048	1.31%
		Kolfe keraniyo	0.001	0.029	0.048	1.06%
		Total	0.0125	0.278	0.072	1.18%
	The HH sanitation facility is not improved or shared	Addis Ketema	0.019	0.400	0.048	5.65%
		Kolfe keraniyo	0.005	0.121	0.048	4.44%
		Total	0.0215	0.4605	0.072	5.04%
	The HH has no electricity	Addis Ketema	0.002	0.055	0.048	3.74%
		Kolfe keraniyo	0.001	0.033	0.048	3.6%
		Total	0.0025	0.0715	0.072	3.67%
	unimproved Room flooring, wall and roof	Addis Ketema	0.006	0.135	0.048	4.97%
		Kolfe keraniyo	0.006	0.135	0.048	4.97%
		Total	0.009	0.2025	0.072	4.97%
	Room density	Addis Ketema	0.024	0.517	0.048	6.07%
		Kolfe keraniyo	0.007	0.165	0.048	6.07%
		Total	0.0275	0.599	0.072	6.07%
	Cooking fuel-The household cooks with traditional input	Addis Ketema	0.017	0.367	0.048	7.34%
		Kolfe keraniyo	0.009	0.200	0.048	6.58%
		Total	0.0215	0.467	0.072	10.6%
	Assets ownership	Addis Ketema	0.020	0.418	0.048	3.32%
		Kolfe keraniyo	0.008	0.177	0.048	2.78%
		Total	0.024	0.506	0.072	4.71%

4.6.1 The uncensored raw head count ratio

The raw head count ratio is similar with the percentage result of MDP result of the household. As the raw head of a dimension is defined as the proportion of the population that are deprived in that dimension. It aggregates deprivations pertaining to the poor (censored headcount) with deprivations among the non-poor.

This includes year of schooling, child school attendance, seriously ill (disability and morbidity), child mortality, water source, improved sanitation, electricity, room flooring, room density, cooking fuel and assets ownership. Accordingly, the result shows those majorities of households in Addis Ketema sub city are deprived of year of schooling 30.2% cooking fuel 7.34% and improved sanitation in 7.5% Addis Ketema Sub city and 6.5% in kolfe keraniyo subcity. Room density of the households is also the major contributor for the MPI and deprivation of the households. Its deprivation level accounts 6.1% for Addis Ketema Sub city whereas its 6.03% for Kolfe Keraniyo Sub city. similar to Addis Ketema sub city, in kolfe keranioyo sub cities, the raw head count ratio is very high in some of the indicators like years of Schooling which take largest portion 29.2% while raw head count ratio of child mortality was very small, that is only 2.15% of the respondents while its 2.1% in Kolfe Keraniyo subicty and 2.2% in Addis Ketema subcity. In other words the analysis indicates that 29.2% of the households in both study areas are deprived by year of schooling.

4.6.2 Multidimensional poverty level

The level of multidimensional poverty ranked as 'Vulnerable to poverty' 'severe poverty' 'less severe to poverty' and 'not vulnerable to poverty as it has been widely discussed on the book (Alkire & Jahan, 2018) and As per the suggestion on the multidimensional poverty measurement scale, the deprivation level of the households from Below 20% indicate 'not vulnerability' whereas, 20%-33.3% of the indicators considered as 'Vulnerable to poverty' 33.3%-50% less severe poverty and more than 50% of the deprivation level belongs to 'severe poverty'.

Table 4.29 poverty level of the households

Vulnerability & Level of Poverty	**Addis Ketema**		**Kolfe Keraniyo**		**Total**	
	No	***Percent***	***No***	***Percent***	***No***	***Percent***
Severe Poverty	10	7%	15	4%	25	11%

Less Severe Poverty	26	20%	19	13%	45	14%
Not Vulnerable to Poverty	55	43%	42	37%	100	40%
Vulnerable to Poverty	52	30%	45	39%	100	35%
Total	**136**	**100**	**134**	**100**	**270**	**100**

In order to calculate the poverty level, number of deprived persons will be counted in each indicator. Therefore, households in severe multidimensional poverty were found to be (11%). This means, as per the technique of analysis of severity of poverty indicated hereinbefore, the 11% (25 households) of the total respondents, were deprived by over or 50% of the weighted indicators (Health, Education, Living Standard) used in this analysis. In comparison, the multidimensional severe poverty level in Addis ketema sub city were (7%) and (4%) in kolfe kenario Subcity. Moreover, the vulnerable peoples in Addis ketema subcity was 20% and 13% in kolfekeraniyo subicty respectively. The amount of less sever multidimensional poverty level in Addis Ketema were 23% while its 20% in kolfe keraniyo sub city. its indication is that, around 14% of the selected study population have deprived in between 33% to 50% of the weighted indicators. This amount is little bit higher compared with the result (Getaneh, 2017) of Felege birhan (19%) and wojel (24%) and less than (14%) yetmen town. The Severity to multidimensional poverty in the urban areas of Ethiopia in 2014 as reported by (OPHI 2014) was (21%) which was lower than the result of the present study in Addis Ketema subicity and Kolfe Keraniyo sub city. this could be because of the slum condition of the selected place and exceptional case of the extreme poverty condition of the households in the selected area.

As it has been described in the literatures the Vulnerability level of Addis Ababa for MDP status were 21% in 2014 and 19% in 2020 and it's the highest compared with other regions of the country (Alkire & Jahan, 2018) (OPHI, 2020)Consequently, some (35%) of the surveyed households were found to be vulnerable to multidimensional poverty while some 40% were not vulnerable to multidimensional poverty. This result is slightly similar compared with the expected urban Vulnerability cut-off point which is (24%).

4.6.3 MDP poverty and non-poverty status of Households

From the survey and it was noted that the Multidimensional poor household's heads are around 25% while the remaining 75% are not multidimensional poor. Of that of the total multidimensional poor household heads, around 65% of them are female whereas the

remaining 35% are male headed households. The gender distribution across the two sub cities is almost similar. Which indicate the major share of females household heads in both sub cities while its 68% in addis ketema subity and 63% in kolfe keraniyo subicty. On the other hand, majority of the multidimensional non-poor household heads are Male headed households (65%) followed by female headed households (35%). Hence, the average sum of multidimensional poor female households is much higher than females in multidimensional non-poor household heads. Therefore there is an indication that most of the female headed households are vulnerable for multidimensional poverty than male headed households.

Compared with the multidimensional poor households, most of single and divorced households are non-poor households. Around (44%) of non-poor households are single and divorced and 15% are windowed while the rest (32%) are married. From the result, it was noted that those who are married tends to have more children's and unemployed family members, although according to the Pearson (chi2) test, relationship between marital status and poverty status is statistically insignificant.

As it has been described on the first part of demographic description of the total population the classification, both non-poor and poor households share some similar characteristics. amongst that, households which are under the age group between 45-56 is the major vulnerable group for multidimensional poverty and followed by HH which are 56-65 age groups as it has been described in the table. In general, the vulnerability for poverty on the household's age group above 45 years is around (76%). Furthermore, (80%) among the total number of non-poor households were headed by the age group from 45 to 65 years in both sub cities. Furthermore, (65%) among the total number of non-poor households were headed by the age group that are below 55 years in both sub cities. This can indicate that young households are more likely to be non-poor and able to protect their families from poverty with diverse income generating activities.

The other determinant and contributing factor for multidimensional poverty was HH family size, the statistical result in the poverty and the household size confirmed that there is a significant positive relationship between households are multidimensional poverty and households size with the result of Pearson chi2(5) = 18.0032 Pr = 0.003 and its implication is Households which have 3-4 family size were under poverty 38 (36%) and most non poor households 33 (24%) have a family size of 1-2. It implies that, majority of households which have family size above 4 are more vulnerable for poverty than those who have less family

size. This might be because of the growing size of unemployed person as the household size grows.

Concerning on the age of the household heads, Majority of the heads in multidimensional non-poor age group is from 36-45. And the minimum age in this study the minimum age of the household head was found to be 25 years. In order to figure out the household's age group which are multidimensional deprived or not, the age group ten years interval was given and divided to obtain specific groups.

4.7 Econometric results of the determinant of poverty

In order to achieve the last objective of the study, determinants of the multidimensional poverty for the households were analysed using binary logistic regression method. Hence, the possible variables were selected based on previous literature suggestion and the result of the variables were analysed based on the survey result of the respondents. As it has been described in the table, the effect of Gender of the respondents found positive and but insignificant on the multidimensional poverty status of the households at ($p>0.407$), keeping other variables constant. The positive sign implies that the female headed households have higher tendency for being multidimensional poor than male headed households. However, the result confirmed the absence of effect on gender difference.

Improved educational status of the households, believed to open the door for jobs, resources and skills of households to support their families. Hence, the statistical result of the study confirm that the educational status of the households have negative significant association with multidimensional poverty status of the households at 1%. The finding indicates that literate households are less vulnerable for poverty than illiterates. The result also consistent with (Teka et al., 2019) which confirm the existence of negative significant relation between being literate households and poverty.

Based on the analysis, the marital status of the households was one of the statistically negative and insignificant. The negative coefficient of the variable indicates that married households have less probability of being poor than divorced and windowed. However, this result showed no significant difference ($p >0.18$) the result doesn't confirm any significant relationship between the marital status and multidimensional poverty status of the households.

Household size was found to be positively related and had significant effect for the multidimensional poverty status of the households at 1% while (p <0.001). As it's shown in the coefficient the positive result of the variable implies that, the odds ratio the households increase by one person will increase the marginal effect of the probability of being multidimensional poor by 7.2%. As it has been expectable and indicated on the literatures, positive relationship between the Households size and multidimensional poverty status was existed mainly because of the household's pressure in feeding and supporting larger family size increase the tendency of the households to be poor. As the households number is increasing,

Table 4.30 summary of econometrics result

MDP poverty status of HH	Marginal Effect dy/dx	Coef.	Std. Err.	z	P>z	[95% Conf.	Interval
Gender	.0421485	.2610007	.3147991	0.28	0.407	-.4703053	.6255521
Educational Status of HHH	-.0660016	-.4087094	.1423073	-2.12	0.004***	-.5408606	-.0209836
Marital HH	-.0298968	-.1851337	.140049	-1.57	0.186	-.4351629	.0484067
HH Size	.0722164	.447194	.1316769	2.24	0.001***	.032755	.4964826
Unemployed size	.0497093	.3078208	.0965172	2.14	0.001***	.0157031	.3558685
Person per room	.0469805	.290923	.1191217	1.92	0.015**	-.0046788	.4182449
Income variation	.2374438	1.47035	.4611113	2.77	0.001***	.2995897	1.747283
Health Status of the households	.1640318	1.015753	.3340345	1.93	0.002 ***	-.0078741	1.116741
Housing ownership	.1015017	.6285408	.1889754	1.81	0.001 ***	-.0273837	.6953251
Credit access	-.0594851	-.3683566	.3289416	-0.51	0.611	-.7250406	.4263945

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

The income of the Poor's are mostly vulnerable for economic shocks like inflation or other price related economic factors. In this study it was assumed that, the economic shocks which result the income variation of the households possibly the main positive determent factor for the multidimensional poverty status. Therefore, the finding result implies that, the income

variation of the households has a positive relationship at 1% significance level with the poverty status of the households.

Unemployed size of the households found to be statistically significant and positive determinant factor for the multidimensional poverty status of the households. As a result while the household's unemployed size increases in the family the likelihood to be vulnerable for multidimensional poverty the households also increase. The odds ratio of the coefficient implies that, when unemployed size of the household increased by one person the probability households to be multidimensional poor will increased by 30%. These may be because of the effect of income and resource sharing between the income generating households and the unemployed members. Similarly the result is confirmed by (Yirbah Hagos, 2014)

From the econometrics logit model presented in table 4.17 Health condition is one of the three main indicators for multidimensional poverty status of the households. It was found significantly affects the multidimensional poverty status of the households positively with 1% significance level. Household's health status has a direct impact on the income, consumption and labour force of the given population. Households who faced health problems have highly vulnerable for both income and multidimensional poverty. Therefore, the positive sign implies that, those who face health problems are highly vulnerable for poverty.

Crowdedness or person per room was one indicator for the living standard of the households in multidimensional poverty. From the result it was observed that person per room determine significantly and positively at 5% with ($p<0.015$). Based on (UN-Habitat, 2020) sufficient living area was putted as an indicator for urban poverty measurement. Hence, the measurement scale is maximum of three persons per room or minimum of four square meters in area. As it has been discussed by (WHO, 2018) in most urban places the HH face crowding when number of occupants or peoples exceed the capacity of the available space size. It's also the existence of mismatch between peoples and dwelling space. When there is a one person addition in the room the marginal effect of probability of the HH to be poor will increase by 4.9%.

Housing ownership/tenure/ statuses of the households were major indicator for the living standard measurement. According to (Birch, 2015) The number of private renters in poverty almost doubled from 2.2 million in 2002/03 to 4.1 million in 2012/13. Poverty fell among home owners and social renters. In this study; major household heads were on rent and it was

found that lack of housing was positive determinant factor for the multidimensional poverty status of the households at 1%. From the result, it was noted that cost of rent is major expense which exacerbate the poverty condition of the households. Therefore, the marginal effect of households who face rental cost for their housing will be vulnerable for poverty by 10% than those who live in private and government housings.

CHAPTER FIVE
SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1. Summary

Based the above analysis the conclusion of the study listed aligned with study objective The study was done on multidimensional poverty status of Urban productive safety net benefices which are about to graduate from the program in Addis Ketema and Kolfe keraniyo Subcity. From the overall respondents around 61% are females and 39% are males. Majority of the respondents age is under 46-55 age group (47%). Nearly 45% of respondents are educational deprived and illiterate. Whereas 21% can only read and write.

Objective one

On the assessment of multidimensional poverty status of the households, the Foster and Alkire (OPHI., 2016) (Alkire & Jahan, 2018) method was utilised. Accordingly, from the three major dimension of poverty namely Education, Health and Living Standards of the households each were discussed and majority of the household's economic condition were on temporary employment 33%. Petty trade, remittance and daily construction works were the main source of income for the households. In addition, the cash transfer from safety net project is supporting the beneficiaries in improving the economic condition of the households. Around 60% of the respondent's average monthly income is below 1000Br whereas most of the respondents also have below 1000Br monthly expenditure per month. Most of the respondents (40%) have 2-3and 3-4(37%) have unemployed size. The crowdedness and person per room were the main problem of the households around 63.1% confirmed the existence of three or more person per room. Food expenditure, rent and utility expense were major expenditure of the households 68%, 17% and 11% respectively. Moreover, 87% of respondents have faced income variation and shortage. Moreover, as per the key informant interview the program has positively impacted the poverty status of households both directly and indirectly. Therefore, the program has significantly contributed for health status, sanitation, Asset ownership and education status of households. Whereas, its impact on households clean cooking, water and electricity was neutral or average.

Objective two

On the MDP status of the respondents, the majority of the contributors were 'years of Schooling' with 29.3%, seriously illness and disabled in the past 45 days 23.16% clean cooking deprived households 10.6%, crowdedness 9.10% unimproved room or housing

7.10% and lack of improved latrine service is 7.1% and the least contributor indicators are improved water access and lack of electricity have 1.84% and 2.3% respectively.

The MPI of the two sub cities and found that 14% and 12.7% for Addis Ketema and kolfe sub cities respectively. On the level of severity, 11% were found under severe poverty whereas 14% are on less severe poverty the rest Venerable and non-vulnerable for poverty are 40% and 35% respectively. From the result it was observed that 24% are MDP poor where as 75% are non-poor. From the MDP poor result 65% were females and 35% were males. On contrary, the 68% of non poors were males whereas 32% were females. The correlation were accepted by Pearson chi2 (1) = 8.5202 Pr = 0.004. Furthermore, it was found that, divorced and windowed were vulnerable for poverty whereas, most non poor's are married. In the age group, around 80% of the poor's were headed by HH whose age is more than 55. On the other hand, 65% of the non-poor households headed by peoples age below 45. From the result both age and marital status were positive determinant for poverty although its statistical significance was not confirmed. The households which have 3-4 or more family size are found to be more vulnerable for poverty and took major share from the poor households. Hence, its result was confirmed with chi2 (5) = 18.0032 Pr = 0.003.

Objective three

From the possible determinant factors for Multidimensional poverty status of the households, Unemployed size, Household size and housing ownership status of the households found that significant determinants at Pr =0.001***, 0.001***, 0.000***,respectively. Moreover, Person per room, Health status and Income variation found that Pr =0.015**, 0.002***, 0.001 ***respectively.

5.2. Conclusions

There are various factors contribute for the poverty status of the households. And it could be measured with different methods, but majorly with, income poverty measurements and multidimensional poverty indicators. As urban places became centre for many peoples both the number of peoples and poverty deprived households expected to grow. Based on the sample taken from safty net beneficeries in Addis Ketema (Woreda 02 and 09) and Kolfe keraniyo subcity (woreda 07), the study evaluated the multidimensional deprivation status, contributively factors and determinants of the multidimensional poverty of the household beneficiaries. Furthermore, in the first objective, the perception of beneficiaries on the impact of the program on MDP status of households was studied.

There is a high MPI with headcount and intensity of households in both subcities which implies the need to work on eradicating the multidimensional poverty. Furthermore, the level severity and vulnerability implies the need for the government's intervention in eliminating the existed poverty level. The health, education and living standard of the households are key indicators for the assessment of poverty status besides to economic income poverty. Less income, high expenditure of the households and existence of higher income variation, lack of credit access contribute negatively for the deprivation of the households economically. This implied the necessity of effective economic decisions towards the improvement of economic condition of the households. And other income sources like small trade, construction works, and safety net income were played positive contribution on poverty reduction of the beneficiaries. Daily wage of the beneficiaries must be taken into account and updated salaries are very necessary for beneficiaries. Social factors like lack of housing ownership, educational condition/illiteracy, gender discrimination and age, household size, unemployed size perceived as a negative determinant factor for the beneficiaries. Although safety net cash transfer inevitable to be one of relevant and major source income for households, its impact on multidimensional poverty of the households were very small.

From multidimensional poverty indicators, peoples illiteracy, illness of households, poor housing conditions, and deprivation on clean cooking service remain as major challenge and contribute factors for deprivation the households. although there is small number of sever poor's in the study area compared with regional towns of the country, less severe and vulnerability is very high compared with other cities of the country as it was confirmed by other studies. The severe and vulnerability condition of the households must be the main concern and priority agenda for the government as well as the development partners of the country.

In general, besides to above listed determinants, other socio economic factors like income variation, inflation and access to credit and housing ownership affect the multidimensional poverty status of the households. Illiteracy, unemployed size, household size, person per room and health status was one of the main determinant factors for multidimensional poverty status of the households.

5.3 Recommendation

Based on the above findings of the study, the following recommendations are given to improve the poverty condition of the households with robust public policies and programs:-

- The concerned bodies and stakeholders including AACPDC, AABOFED must conduct extensive assessments on the poverty level of the households to manage and to prevent or to reduce the risks poverty
- Government must Strengthen the poverty alleviation programs like safety net with diverse areas of intervention with cash and non-cash support for the vulnerable bodies
- job creation and business entrepreneurship programs supposed to be supported by the government and development partners to decrease unemployment and underemployment
- Since the poor's are highly vulnerable for economic shocks like inflation, there must be policy measures and clear directions to mitigate the challenges of income variation and shortage.
- Creating sustainable economic atmosphere is for the poor's, is very necessary through business entrepreneurship and encouraging saving culture of the households such as revolving fund programs and other credit options.
- As it has been observed on the finding of the study, the concerned bodies must work to address the key challenges on the delivery of basic service for the poor's especially on balance diet foods, access to clean water, health facilities, education and electricity service for the households
- Education must be taken as a key socio economic driver for the development of the society in terms of health, and improvement of living standards. Furthermore it should be an inclusive for females, and elders who didn't get the education.
- Although the health service facilities are under satisfactory level with its coverage, still there is remaining tasks to be done on the provision of affordable health service and health insurance for the poor's
- Key concerned bodies like local administrators and city housing administration office must give attention for the deprivation on housing and its quality to improve the living standards of the poor's. housing policies must address poor households demand and the issue of affordability and must look in to other available options
- Efficient clean cooking products must be introduced and financed by development partners and governments and deprivation must be reduced by providing the service for poor's. Furthermore, WASH service must get an attention by government and other concerned bodies.

- Government must work on WASH projects to bring change on latrine services, with toilet building, maintenance and water pipe infrastructure. Furthermore effective policy is needed to aggressively work on building latrine services.
- Programs which aim at eradicating poverty must bring tangible change so that it is necessary to evaluate their implementations and suggest effective tools like ‘program for result’ should be considered.

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Appendixes

Appendix 1. STATA Result of Binary Regression Model

```
. logit Poverty_Status Unemployed_Size Person_Per_Room Gender marital_status Education_Status HHsizeR  Health_Status income_var housi

Iteration 0:   log likelihood = -177.97118
Iteration 1:   log likelihood = -133.21099
Iteration 2:   log likelihood = -132.27807
Iteration 3:   log likelihood = -132.27481
Iteration 4:   log likelihood = -132.27481

Logistic regression                             Number of obs     =        270
                                                LR chi2(10)       =      91.39
                                                Prob > chi2       =     0.0000
Log likelihood = -132.27481                     Pseudo R2         =     0.2568
```

Poverty_Status	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Unemployed_Size	.3078208	.0965172	3.19	0.001	.1186506	.496991
Person_Per_Room	.290923	.1191217	2.44	0.015	.0574487	.5243974
Gender	.2610007	.3147991	0.83	0.407	-.3559942	.8779956
marital_status	-.1851337	.140049	-1.32	0.186	-.4596248	.0893573
Education_Status	-.4087094	.1423073	-2.87	0.004	-.6876265	-.1297923
HHsizeR	.447194	.1316769	3.40	0.001	.189112	.7052759
Health_Status	1.015753	.3340345	3.04	0.002	.3610575	1.670448
income_var	1.47035	.4611113	3.19	0.001	.566589	2.374112
housing_ownership	.6285408	.1889754	3.33	0.001	.2581559	.9989258
credit_acess	-.3683566	.3289416	-1.12	0.263	-1.01307	.276357
_cons	-6.33458	1.300345	-4.87	0.000	-8.883209	-3.785951

```
. vif,uncentered
```

Variable	VIF	1/VIF
credit_acess	11.21	0.089227
housing_ow~p	10.22	0.097886
Person_Per~m	9.77	0.102372
Health_Sta~s	8.95	0.111679
Education_~s	7.13	0.140187
marital_st~s	5.61	0.178251
HHsizeR	5.09	0.196305
Unemployed~e	4.71	0.212337
Gender	2.08	0.481409
Mean VIF	7.20	

```
. logistic Poverty_Status Unemployed_Size Person_Per_Room Gender marital_status Education_Status HHsizeR  Health_Status income_var ho

Logistic regression                             Number of obs     =        270
                                                LR chi2(10)       =      91.39
                                                Prob > chi2       =     0.0000
Log likelihood = -132.27481                     Pseudo R2         =     0.2568
```

Poverty_Status	Odds Ratio	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Unemployed_Size	1.360457	.1313075	3.19	0.001	1.125976	1.643768
Person_Per_Room	1.337662	.1593446	2.44	0.015	1.059131	1.68944
Gender	1.298229	.4086812	0.83	0.407	.7004767	2.406072
marital_status	.8309932	.1163798	-1.32	0.186	.6315206	1.093471
Education_Status	.6645073	.0945642	-2.87	0.004	.502768	.8782778
HHsizeR	1.563918	.2059318	3.40	0.001	1.208176	2.024405
Health_Status	2.761442	.9224167	3.04	0.002	1.434846	5.314551
income_var	4.35076	2.006184	3.19	0.001	1.762246	10.74147
housing_ownership	1.874873	.3543048	3.33	0.001	1.294541	2.715363
credit_acess	.6918704	.2275849	-1.12	0.263	.3631025	1.318318
_cons	.0017739	.0023067	-4.87	0.000	.0001387	.0226873

```
.
```

```
. margins, dydx (Unemployed_Size Person_Per_Room Gender marital_status Education_Status HHsizeR  Health_Status income_var housing_ownership credit_a

Average marginal effects                        Number of obs     =        270
Model VCE    : OIM

Expression   : Pr(Poverty_Status), predict()
dy/dx w.r.t. : Unemployed_Size Person_Per_Room Gender marital_status Education_Status HHsizeR Health_Status income_var housing_ownership credit_aces
```

	dy/dx	Delta-method Std. Err.	z	P>|z|	[95% Conf.	Interval]
Unemployed_Size	.0497093	.0145568	3.41	0.001	.0211785	.0782401
Person_Per_Room	.0469805	.0185376	2.53	0.011	.0106475	.0833136
Gender	.0421485	.0506469	0.83	0.405	-.0571177	.1414146
marital_status	-.0298968	.0223659	-1.34	0.181	-.0737333	.0139396
Education_Status	-.0660016	.0217266	-3.04	0.002	-.1085849	-.0234183
HHsizeR	.0722164	.0196896	3.67	0.000	.0336255	.1108073
Health_Status	.1640318	.0506784	3.24	0.001	.064704	.2633595
income_var	.2374438	.0693555	3.42	0.001	.1015094	.3733781
housing_ownership	.1015017	.0283417	3.58	0.000	.045953	.1570504
credit_acess	-.0594851	.0528062	-1.13	0.260	-.1629834	.0440131

Appendixes 2: Household Survey Questionnaires

College of Development Studies

Centre for Regional and Local development studies

Household Survey Questionnaires to be complete by sample households

Dear Sir/Madam,

My name is Samuel Eshete. I am Master's program student at Addis Ababa University College of Development studies at Centre for Regional and Local Development Studies. Your household has been randomly selected to participate in the multidimensional poverty analysis survey which has been commissioned by Addis Ababa University. The aim of this survey is to collect information on multidimensional Poverty status of Urban Productive Safetynet program beneficiaries. The interview will take few minutes. Your response will assist to achieve my research objectives.

I assure you that your answers will be completely confidential. Only summary information will be used for analysis and for academic purposes. No individual filled questionnaire will be made available to any group or authority. I highly appreciate your assistance and I thank you for your cooperation in advance.

Name of the enumerator _____
Date of interview _____
Sub-city _____ Woreda _____ Kebele _____ *Ketena* name _____
Survey HH No _____ Household ID_____
Respondent Head of the Household (tick) other (specify relation to HHH)
Date of interview____/_____/_____ signature _____

1. Age of household head _____
2. Gender
   1) Male 2) Female

3. Marital status of the Household
   1) Single 2) Married 3) Divorced 4) Widowed 5) married but separated

4. Level of Education of the Household
   1) Illiterate 2) Can read and write 3) Primary schooling (Grade 1-8) 4) Secondary (9-12) 5) college or university

If your education status is below primary level, state the reason why you dropout

---

5. What is the employment status of the HH?
   1. Employed 2.Unemployed 3. Pension 4. Safe net beneficiary only

6. If you are employed, what is your main occupation and source of income?

1) Self-employed /Self-account
2) Private
3) Government employed
4) Other

7. If your answer is self- employed, what are the major income sources of the household?

1) Petty-trade/Gulit
2) Direct safety net support
3) sale of local drinks
4) Sale of food
5) Handicraft (embroidery, pottery)
6) Metal /Woodwork
7) Others

Part II Socio-demographic Characteristics of the Household

8. Household member's size _____

Number of family members below age of 15_____

Number of family members between 15 & 64 _____

Number of family members above 64_____

9. Did you have an access for safety net support?
   1. Yes 2. No
10. When did you join the program?
    Specify_____
11. How many safety net beneficiaries are there in the HH family?
    1. One 2.two 3.three 4.four

12. Household economically active or inactive members

Number of economically active members of the HH _____

Number of economically inactive members of the HH _____

If you are in active what is your reason_____

_____

13. What was the ownership status of the HH house?

1. Privately owned 2. Government owned 3. other

14. Do you have any credit access for your business?
    1. Yes 2. No
15. If your answer is yes how did you get the access?
    1. Urban safety net 2. Government facilitated credit access 3. other
16. Has any adult household member had any savings?
    1. Yes 2. No
17. If yes, for how long time did he/she save?
    In days/month_____
18. If yes, how much money did he/she save per month?
    In Birr_____
19. Do you think your income was improved after joining the safety net program?
    1. Yes 2.No
20. What are the HH's main consumption expenditures?
    1. Food consumption expenditure 2.education 3.transport cost 4. Medical cost 5.house rent
    6. Water and electric fee 7. Loan 8.others
21. If you are safety net beneficiary, did you face any income variation challenges after you join program?
    1. Yes 2 No

What kind of support is the household getting from safety net?

1. Financial assistance through direct support
2. Financial assistance through conditional support
3. Counselling
4. Financial assistance for medical care
5. Financial assistance for education
6. Other (specify)_____

Part . Household health and education status

Education

22. Is there any household member not completed primary education?
    1.Yes 2. No
23. If yes for Q.2 what is the reason
    1. No access to school
    2. Lack of money for schooling
    3. Do not want/ no interest
    4. To help family
    5. Others _____
24. Are there any children (Age below 15) who are currently attending School?

Specify the No _____

25. Are there any children whose age is between 7 to 15 and not attending school?
    1. Yes 2.No

If your answer is yes specify the No._____

26. If your answer is yes, what was the reason for the dropout?
    1. No access to school
    2. Lack of money for schooling
    3. Do not want/ no interest
    4. To help family
    5. Illness
    Others ___

Health related

ii. Are there any health problem in you/ family member in the past 45 days?
    1. Yes 2. No

iii. If yes for Q.2 what was the sickness/ injury the person faced?
    1. Malaria 2. Diarrhea
    3. Injury 4. Dental
    5. Tuberculosis 6. Other

27. Is there any household member who faced permanent physical difficulty/or disabled?
    1. Yes 2. No
28. If there is what was the problem?
    1. Blindness 2. Deafness
    3. Walking 4. Concentrating/remembering/ Mental retardation
    5. Unable to washing, feeding, dressing, toileting one self
    6. Chronic illness
    7. Other _____
29. Did they get treatment on the Hospitals?
    1. Yes 2. No
30. Have you or your household member have got a medical checkups with in the past 6 months?
    Yes 2. No
31. Did you have an access for social health insurance program?
    a. Yes 2. No

9 What is the amount of expenditure of the household for health in the last 12 months?
In Birr_____

32. How do you cover the health expenditure?
    1. Self 2. Government
    3. UPSNP 4. NGOs 5. Others
33. have you or your family member have been absent from work or education because of the illness of the person in the family
    i. Yes 2. No
34. If yes for how many days? Specify the No. of days_____
35. Is there child/infant severe sickness in the household in the past six month?
    1. Yes 2. No
36. Is there child/infant severe sickness in the household in the past six month?
    1. Yes 2. No
37. Is there a child/infant mortality/Age <5years/ in the household in the past five years?
    1. Yes 2. No
38. If yes for the above question what was the cause for the death?
    1. Diarrhea 2. Accident
    3. Malaria

4. Pneumonia 5. Others

Household living Standard

Water and Sanitation service availability

39. What kind of water source do you use for your household consumptions?
    i. Private tap water with pipe
    ii. Communal tap outside 2. Buying water products
    iii. Other_____
40. How far is the water source from your home?____ if the source is out of compound? Specify the distance in Meter__.

41. Is there any problem with water supply in your community?
    1. Yes 2. No
42. If yes, what are the problems?

43. How often do you get water in the week?
    1. Once or twice a week 3 four days in week
    2. Five to seven days in a week
    3. Three days in a week
44. Is there any hand washing/hygiene facility in your household?
    1. Yes 2. No
45. If yes, specify what kind of facility do you use?
    1. Rubbish pit
    2. Cloth washing
    3. Traditional drying rack
    4. Bath washing facility
    5. Home dish washing facility
    6. Water tanker

Availability of Sanitation/WASH related questions

46. What is the available latrine/toilet facility service in your household?
    1) private ventilated Pit latrine
    2) shared/between neighbors/ ventilated Pit latrine
    3) Private Pit latrines with traditional materials
    4) shared/between neighbors/ Pit latrines with traditional materials
    5) Public toilets
    6) other_____

47. Do you have any problem related to latrine facility in your household/community?

    1. Yes 2. No

48. What are the problems related with latrine/toilets facility in your community?

    1. Inadequate number of latrines/toilets

2. Non-functional latrines
3. Absence of latrine
4. Other (specify)_____

49. Is there an adequate drainage system for waste water disposal?
1. Available
2. Not available

50. Are the drainage systems functional currently?
1. Functional
2. Non functional

51. Did any of the household members suffer from illness within the past 2 months related with lack of better hygiene services?
1. Yes 2. No

52. What was the negative consequence has it brought on your health?
1. Diarrheal diseases 2. Common cold 3. Asthma-exacerbate 4.Other_____

Access to Electricity questions

53. Is there any electric power in your home?
1. Yes 2. No

54. What is the main source of light and powering for the household?
1. Electricity meter- private 2. Electricity meter- shared with neighbour
3. Solar energy 4. Bio -gas
5. Local kerosene lamp (Kuraz). 6. Other

Clean cooking questions

55. What is the power source for cooking?
Specify_____
1. Electric power 2. Traditional power sources like Wood/ Charcoal/
3. Butane gas 4. Others

56. What kind of kitchen service do you have?
1. Private 2. Communal

57. Is there any ventilation in your house kitchen such as open able window?
1. Yes 2, No

58. What type of oven (Mitad) used for baking?
1. Traditional oven/mitad
2. Energy saving mitad like lakech,
3. Electric mitad 5. Other

59. What type of oven you used for cooking Wot?
1. Traditional stove
3. Improved energy saving stove
4. Electric stove
5. Other

65. If you are using traditional methods, why do not you use the modern energy saving oven?

1. Absence of access
2. High cost of the product
3. High electric power cost
4. Other

Assets ownership

Condition of housing and living environment

69. What is the status of your Housing?

1. Fully Owned
2. with rent_____(Specify in Birr)
3. Sharing _____(Birr)
4. Care taking
5. Kebele_____(Specify in Birr)
6. Other (specify)_____

70. How many numbers of rooms are there in your household?

1. one 2.two 3.three 4.more than three

72. Do more than three people live in one room?

1. Yes 2. No

If your answer is Yes specify the number?_____

73. Is there an adequate space per room for the family members?

1. Yes 2.No

74. If your answer is 'yes' how do you rate it

1. Adequate
2. Small
3. Very small

75. Is there a ventilation access in your home?

1. Yes 2. No

76. If your answer is 'yes' rate the statuses

1. Well ventilated
2. Poorly ventilated

77. Housing conditions

The floor of the main dwelling is predominantly made of what material?

1. Traditional materials like dung 2. Parquet or polished wood
3. Cement screed 4. Plastic tiles
5. Cement tiles 6. Ceramic/marble tiles 7. Others

78. What are the materials that your house roof is made from?

1. Iron Sheet
2. Plastic thatch
3. Others specify_____

79. How do you rate the condition of the roof in your house?

1. Good
2. Leaks
3. Dilapidated/decaying

80.What are the materials that your house Wall is made from?

1. Brick
2. Blocks
3. Mud and wood
4. Plastics
5. Others specify_____

81. How is the condition of the wall?
1. Good
2. Partially ruined
3. Dilapidated/decaying
4. Others specify_____

Do you have Basic household items?

No	Item Name	Yes=1/ No=0 if yes please tick✓	Number of items	If yes specify the condition (circle❍)	Estimated price
1	Telephone			1. Poor condition 2. Better condition	
2	Television			1. Poor condition 2. Better condition	
4	Radio			1 Poor condition 2. Better condition	
5	Refrigerator			1. Old 2. New	
6	Blanket			1. Old 2. New	
7	Car			1. Old 2. New	
8	Motorbike			1. Old 2. New	
9	Bike			1. Old 2. New	
10	Others_____				

Appendix 3. Key Informant Structured Interview Guide

Dear respondent,

Thank you in advance for your cooperation.

1. how do you describe the status and trend of multidimensional poverty in this *woreda* especially in the Addis Ketema and Kolfe subcity?
2. How is the status and trend of the access of public goods (services) such as education, health centers, electric power and water access in Addis Ababa?
3. Do you think the government interventions through safety net program contribute for the reduction of multidimensional poverty (Education, Health, Living Standard)?
4. Do you believe that households use improved latrine service? Or is there any kind of open defecation in this area? If yes how the local governments are responding for the problem?
5. Do you think there is a problem on years of schooling and children education in the study area? If yes how the local governments are responding for the problem?
6. Do you believe the culture of use of electricity for cooking is improved? What do you think is the reason/s for your answer?
7. What are the major economic activities of the region especially for the above mentioned woredas?
8. How do you think the problem of housing, lack of credit access and crowdedness adversely affect the households living condition?
9. How do you evaluate the government support for the reduction of poverty in the region?