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INSTITUTE OF AGRICULTURE AND DEVELOPMENT STUDIES

URBAN ECONOMIC GROWTH AND POVERTY REDUCTION IN ETHIOPIA: THE CASE OF ADDIS ABABA

By

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Declaration

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

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ACRONYMS

AF	Alkire Foster
ATW	Access to Water
CBN	Cost of Basic Needs
CIA	Central Intelligence Agency
CSA	Central Statistical Agency
DHS	Demographic Health Survey
DW	Distance to Water
ETB	Ethiopian Birr
ERHS	Ethiopian Rural Household Survey
EUHS	Ethiopian Urban Household Survey
FEI	Food Energy Intake
FGD	Focused Group Discussion
FGT	Foster-Greer-Thorbecke
GDP	Gross Domestic Product
GTP	Growth and Transformation Plan
HH	Household
HICES	Household Income Consumption Expenditure Survey
HDI	Human Development Index
HDR	Human Development Report
HPI	Human Poverty Index
IAG	Inter Africa Group
ILO	International Labor Organization
IPC	International Poverty Center
MDG	Millennium Development Goals
MoFED	Ministry of Finance and Economic Development
MPI	Multi-dimensional Poverty Index
NGO	Non-governmental Organizations
NLC	Number of Living Children
NPC	National Planning Commission

OPHI	Oxford Poverty and Human Development Initiative
PASDEP	Plan for Accelerated and Sustainable Development to End Poverty
PPP	Purchasing Power Parity
SDPRP	Sustainable Development and Poverty Reduction Program
SPSS	Statistical Package for Social Sciences
SSA	Sub-Sahara Africa
UNDESA	United Nation Department of Economic and Social Affairs
UNDP	United Nations Development Program
USD	United States Dollar
WDI	World Development Indicators
WFP	World Food Program
WHO	World Health Organization
WMS	Welfare Monitoring Survey

Abstract

Poverty is the main development challenges of developing countries including Ethiopia. In Ethiopia also most poverty studies have been conducted in rural areas and attempts on urban centers are somehow little. Even some attempt poverty assessment studies of Addis Ababa had conducted by different actors are based on income based approach. Those studies did not able to show the multidimensional level of poverty Addis Ababa. The poverty reduction design and implementation is based on economic growth income elasticity poverty reduction approach.

This study is to explored Ethiopia economic growth elasticity of income poverty estimate and multidimensional poverty reduction in Addis Ababa using of Alkire Foster Method and evaluate poverty reduction efficiency with descriptive analysis. In doing so, both primary and secondary data were used. Primary data was obtained through focus group discussions. Secondary data was obtained from published and unpublished materials, books, journals, reports and CSA 2010/11-2014/15 HCES, WMS and DHS data sets. An Alkire Foster (AF) Method was deployed and estimated based on secondary CSA data sets whereby the multidimensional headcount ratio,intensity,adjusted headcount and the contribution of the selected insicators to the overall poverty was explored. The results showed multidimensional poor with a head count index of 63%, intensity of 37% and poverty severity of 23.3% at poverty cutoff (k=20%) and 26%,43% and 11% at poverty cutoff (k=40%) respectivelly.

The other finding of the study showed that incidence of income poverty and multidimensional poverty headcount of the study area were 18.9% and 23.3%, respectivelly.This result revealed that there are deviation between income and multidimensional poverty level.

To improve the efficiency and effectiveness of poverty reduction intervention and poverty reduction development strategy designing and implementation of in urban Addis Ababa recommendable to use multidimensional poverty measurement and economic growth elasticity to multidimensional poverty reduction approach rather than income base.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Poverty is generally considered as a situation in which the underprivileged do not have adequate food and shelter, lack access to education and health services. They are exposed to violence in some instances and find themselves in states of unemployment, vulnerability and powerlessness. The phenomenon is multidimensional and has to be looked at through a variety of indicators such as levels of income and consumption, social indicators and indicators of vulnerability to risks and social political access and participation (Asmamaw, 2004).

Poverty is characterized by inequality or lack of productive means to fulfill basic needs such as food, water, shelter, education, health and nutrition .The multi-dimensional character of poverty in Ethiopia is reflected in many respects such as destitution of assets, vulnerability and human development. The World Bank's definition of poverty indicates that poverty is"-- a produced deprivation of well-being related to lack of education and health, vulnerability and exposure to risks and voiceless and powerlessness " (World Bank, 2001a)

The global Multidimensional Poverty Index (MPI) (2014) covers 37 Sub-Saharan Africa (SSA) countries which are home to 91 percent of the population of the region using the 2010 population data (UNDESA 2013).In 2014, a total of 462 million people were living in multidimensional poverty or 58.5 percent of all people living in these countries. Nearly 30 percent of total MPI poor of the world (out of 108 countries analyzed) live in SSA (Alkire,Conconi and Seth 2014a).Of these 462 million people, 36.3 percent live in West Africa, 36 percent in East Africa, 14.5 percent in Central Africa and 13.3 percent in Southern Africa.

When we see the rural-urban decomposition, the global MPI uses the same indicators to depict rural and urban poverty, allowing us to directly compare MPI poverty in rural and urban areas. Of the 462 million people identified as MPI poor in SSA, 88.5percent live in

rural areas, significantly higher than income poverty estimates of 73.8 percent. With the MPI, the pattern of higher incidence and intensity of poverty in rural areas than in urban ones is consistent across the different SSA countries (Alkire and Husseini, 2014).

Despite apparent progress on many aspects of well-being, the progress has not been observed to the same degree of multi-dimensional poverty index (MPI).The recent Oxford Poverty and Human Development Initiatives (OPHI) global MPI data report shows that, 87 percent of the population was MPI poor i.e. deprived of at least one-third of the weighted MPI indicators (OPHI, 2014). Other studies that explored the multi-dimensional aspect of poverty measured by the MPI declined by only about 10 percent compared to the 33 percent decrease in the monetary poverty during the same period. Overall, with over 85 percent of the population deprived, the index of suggests the country's poverty is deep-rooted and complex. Population deprived, the index suggests the country's poverty is deep-rooted and complex. (Carranza and Eallegos, 2013).

Poverty reduction is the core objective of Ethiopian government. That is why the Government had conducted and implemented three consecutive poverty reduction strategies (SDPRP, PASDEP and GTP I) and adopted poverty reduction Millennium Development Goal by taking agriculture as main source of economic growth. The official government report on economic growth and poverty reduction shows that Ethiopia has registered a two-digit rate of 11% growth in the last decades and has made immense progress in poverty reduction. In terms of poverty, the official report indicates that the head count ratio of poverty (percent of population below poverty line) has declined from 45 percent in 1994//95 to 23.4 percent percent in 2014/2015.

There is no consensus on a single definition of urban poverty but two broad complementary approaches are prevalent; economic and anthropological interpretation .Conventional economic definition uses income or consumption complemented by a range of other social indicators such as life expectancy, infant mortality, nutrition, the proportion of household expenditure spent on food, literacy, school enrolment, access to health clinic or drinking water. This approach allows to classify the poor according to groups against a common index of material welfare. Anthropological studies of poverty have shown that peoples own conceptions of disadvantage often differ from those of professional experts. Great value is attached to qualitative dimensions such as independence, security, self-

respect, identity, close and non-exploitative social relationship, decision making freedom and legal and political rights (Masika 1997).

Previous analysis of poverty in Ethiopia has generally focused on rural rather than urban areas. This is understandable in light of the fact that around 85 percent of the population lives in rural areas. Unfavorable weather fluctuation may take a heavy toll on the lives of rural farmers and bring them to the brink of starvation. On the other hand, it is the plight of urban Ethiopians that is the focus of the analysis in this paper. Although urban Ethiopians generally enjoy higher standards of living when compared to their rural counterparts, poverty remains a problem in urban areas too (Tadesse, 1999).

This study will explore and identify multi-dimensional poverty (MPI) by focusing on selected dimensions and poverty reduction efforts of Addis Ababa. It follows previous studies to identify dimensions of deprivation (Alkire and Roche, 2011).

1.2 Statements of the Problem

Poverty is the main developments challenges of developing counties. Poverty alleviation is high agenda of the government, donor agencies, NGOs and other actors that have the inspiration to reduce the level and mitigate the effect and its associated impacts on the well-being of the people. Though the Ethiopian Government has been formulating and implementing various policy interventions and programs with regard to poverty reduction, most efforts are biased towards rural areas.

Most poverty literature in Ethiopia focus on rural areas. The studies concentrate on food entitlement failures of farmers (Webb and Colleages, 1992; Webb and Bon Braun, 1994).Though in absolute terms poverty is still a rural phenomenon, there is currently a diffusion and growth of urban poverty. The number of urban poor is increasing at unprecedented level that might be fueled by the high rural-urban exodus and alarming internal population growth. The urban economy has limited capacity to accommodate the emerging youth population and rural-urban migration.

Although rates of urbanization in Ethiopia are quite low compared to other countries, urbanization is taking place, and as Ethiopia urbanizes, poverty becomes more urban .In 2000, 11 percent of Ethiopia's poor lived in cities, but this rose to 14 percent in 2011.As a

result the number of urban poor stayed almost constant between 2005 and 2011 at 3.2 million even though urban poverty rates fell by almost ten percentage points (from 35 percent to 26 percent). (Schmidt and Kedir 2011).

In developing countries poverty measurement and poverty reduction strategy had faced different constraints. Among the main constraints the first one is that it focuses on single indicator of income/consumption poverty measurement approach .This approach of poverty concept and measurement was criticized by different people who think measurement of poverty must include other variables other than level of income or consumption. Actually the utility (welfare) of the people was not only affected by income/consumption level but also due to non-income dimensions and indicators such as access and quality of education, health, living standards. The second one is most studies have been conducted at national level and rural areas focused with little consideration of urban areas. The third one is that, non-inclusive (inefficient and ineffective) poverty reduction strategy that had been prepared based on economic growth elasticity income/consumption poverty reduction approach and based on national average poverty reduction estimates. Because the nationally focused and income/consumption poverty measurement approach hide the poverty level of urban areas and non-income poverty dimensions of the country.

Like others most African countries, in Ethiopia also, the government official poverty reduction measurement and some national poverty assessment report attempt conducted by International NGOs had been focused on monetary dimension and dominantly national focused, even though there was somehow little an attempt on a study of urban poverty in Ethiopia and OPHI had tried to indicate the national MPI poverty level and the rank of Ethiopia by MPI measurement. This is still national focused study. The government poverty reduction strategy had designed and implemented also based on national income level data based without/little emphasis on multi-dimension data and

So, efficient poverty reduction strategy is required clear identification of multidimensional poverty level and dimensions and designing of appropriate policy intervention of both rural and urban is important.

The aim of this study is to explore Ethiopia economic growth elasticity of income poverty estimate and multidimensional poverty reduction in Addis Ababa using of Alkire Foster Method and evaluate poverty reduction efficiency with descriptive analysis.

1.3 Research Questions

The main research questions to be answered in this study are:

- Does Ethiopia economic growth elasticity poverty reduction estimate able to indicate income and multidimensional poverty reduction of Addis Ababa equally?
- What is Multidimensional Poverty Index (MPI), multidimensional poverty incidence (H) and multidimensional poverty intensity (A) of Addis Ababa?
- How much proportion of Addis Ababa population below income poverty line and categorized as multidimensional poor population?
- Is there a difference between Addis Ababa multidimensional poor populations with the national average of multidimensional poor population?
- Can we consider income based poverty reduction intervention as efficient tool to address Addis Ababa multidimensional poverty?

1.4 Objective of the Study

General Objective.

The general objective of the study is to explore Ethiopia economic growth elasticity of income poverty estimate and multidimensional poverty reduction in Addis Ababa using of Alkire Foster Method and evaluate poverty reduction efficiency with descriptive analysis.

Specific Objectives

Specific objectives of the study include:

- To measure the urban Addis Ababa Multidimensional Poverty Index (MPI),incidence and intensity of multidimensional poor households
- To identify the gap between income poor and Multidimensional poor households of urban Addis Ababa

- To compare urban Addis Ababa multidimensional poverty level with the national average
- To evaluate Ethiopia national and urban economic growth elasticity of income poverty reduction estimate and multidimensional poverty level of Addis Ababa
- To come up with relevant recommendations of economic growth elasticity of Urban poverty reduction of Addis Ababa

1.5 Significance of the Study

The nature and extent of multidimensional poverty experienced by Ethiopians residing in urban areas like Addis Ababa is an important issue that should be considered and dealt with in depth. Making analysis in such areas helps identify the multidimensional poverty level and develop an appropriate policy response to tackle it. Furthermore, exploring the association between economic growth, development and poverty reduction will also be worthwhile. This will have a direct bearing on Policy-making and programming in economic growth and poverty reduction with development process to ensure equity and efficiency. Thus, this study is aimed at explore and identify the multidimensional poverty level of Addis Ababa using Multi-dimensional approach. Describing and exploring of multidimensional poverty in the study area will have an immense importance in that; a similar study has not been conducted in the area so far and it can serve as a corner stone for future studies. Moreover, as stated earlier, studies conducted in similar towns are limited; what this study can serve as a triggering idea for similar studies.It can be used as a reference/input to those parties/stakeholders who are interested in the subject area.

In short, this study will serve two basic purposes. First, the exploration and description analysis of the multidimensional Poverty level of Addis Ababa helps policy makers to come up with appropriate ways of intervention for urban poverty reduction strategy and programs .Second; it may be useful for further research in related area.

1.6 Scope of the study

The study explored and described the situation of multidimensional poverty level of Addis Ababa. For this household level analysis, the study used Alkire and Foster (AF) methods of poverty measurement and Household Consumption Expenditure Survey, Demographic

Health Survey (DHS) and Welfare Monitoring Survey (WMS) 2010/11-2014/15 data that is conducted by CSA.

1.7 Limitations of the study

Keeping in mind no study in itself can be carried out without limitations, this paper is Constrained by a number of factors:This study is limited to use survey and census data conducted by CSA in the period between 2010/11-2014/15. The limitation of this study was the one associated with lack of timely and adequate data availability. There are shortages of updated data, particularly, on Household Income Consumption Expenditure Survey, Welfare Monitoring Survey, and Demographic Health Survey. To solve the problem the study used data from assessment and government strategy plan performance reports done by different actors.

The most difficult challenge while doing this study came from inconsistency of data from different organizations. So as to avoid such inconsistency attempt was made to stick to the same source of data. The aim of this study is to explore and describe Ethiopia economic growth elasticity of income poverty estimate and multidimensional poverty reduction in Addis Ababa using living standard, health and education dimensions with access to safe water, distance to save water, access to electricity, small asset ownership, number of living children and household level of education selected indicators for the study. However, there are also other indicators with the selected dimension that able to measure urban multidimensional poverty might be consider other limitations of this study.

1.8 Organization of the Paper

The thesis has five chapters. Chapter one consists of the introduction: background of the study, statement of the Problem, significance of the Study, objectives of the Study, Research questions, scope of the Study, limitations of the Study, organization of the paper.Chapter two deals with review of related literature. The research methodology, being under chapter three introduces data type and source, sample size, data collection instrument, data presentation and analysis, method specifications and dimension indicators. Chapter four presents the findings and analysis. Eventually, conclusion and policy implications of the study are presented in the last chapter-chapter five.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Economic Growth and Poverty Concepts

2.1.1 Economic Growth Concepts and Pro-Poor Growth

Economic growth can be defined as a sustainable increase in real Gross Domestic Product (GDP) and real GDP per capita. GDP is the total market value of all final goods and services produced annually by resources located within a country, regardless of their ownership. Real GDP is GDP adjusted for inflation, that is, nominal GDP divided by the price index. Real GDP per capita is simply real GDP divided by the total population. Thus, economic growth is a **quantitative *measure***.

Economic growth is important because the bottom line for an economy is its ability to satisfy human wants. According to McConnell and Brue (2002), there are six main ingredients in economic growth. These are grouped as ***supply***, ***demand*** and ***efficiency*** factors. The ***supply factors*** are four in number and constitute the physical ability of the economy to expand. These are the increase in the quantity and quality of natural resources (such as arable land, forests, minerals, oil deposits, and water resources), the increase in the quantity and quality of human resources (the physical and mental talents of individuals as well as the entrepreneurial ability), the increase in the supply or stock of capital goods (such as tools, machinery, equipment, factory, storage, transportation, and distribution facilities), and improvements in technology (innovative production techniques as well as new forms of business organization that improve the process of production).

The fifth ingredient of economic growth is the ***demand factor***. To achieve the higher production potential created by the supply factors, households, businesses, and government must purchase the economy's expanding output of goods and services. In other words, there will be no unplanned increases in inventories and thus resources will remain fully employed. Therefore, economic growth requires increases in total spending to realize the output gains made available by increased production capacity.

The sixth ingredient of economic growth is the ***efficiency factor***. The economy must use its resources in the least costly way (productive efficiency) to produce the specific mix of goods and a service that maximizes people's well – being (allocative efficiency). Thus,

economic growth is a ***dynamic process*** which entails the interaction of the supply, demand, and efficiency factors.

2.1.2 Poverty Concepts

However defined and measured, poverty is an ever-present social problem that has afflicted societies throughout history in varying prevalence and intensity. While its impacts are felt primarily by the poor themselves—individuals and households—, they also affect the prosperity, peace, and security of human communities from local to global. Reducing poverty is the goal of nearly all societies. Yet, no standard measure of poverty exists among either nations or scholars. Some adopt a sociological perspective and suggest a multidimensional poverty concept that reflects the many aspects of well-being. In this context, people deprived of social contacts are described as being socially isolated, and hence viewed as "housing poor" and people with health deficits as "health poor. "Individuals who fail "to reach 'minimally acceptable' levels of different monetary and nonmonetary attributes necessary for a subsistence standard of living" are defined as being poor. (Bourguinon and Chakravarty, 1998).

Basic needs constitute one of the earliest and remains a common approach to defining and measuring absolute poverty. As early as the turn of the century, basic needs were considered to be food, clothing, and housing. Biologically oriented definitions and indicators centered on food, nutrition, caloric needs and intakes, anthropomorphic measures, especially the relation between weight and height. In1965, Orshansky developed the US Social Security Index of Poverty based on cost estimates of minimum food requirements. This translation of biological needs into an income variable fulfills the economist's dictum that "it is command over resources (income) to satisfy needs that a poverty definition should be concerned with rather than the actual consumption of some specific goods." (Hagenaars, 1986).

A standard for nutritional needs was developed in the form of an "Adult Equivalent Unit" (AEU) that balances differences by age, gender, and activities.

According to the International Poverty Centre (IPC), what does poverty is taken to mean depends on who asks the question, how it is understood, and who responds. From this perspective, it has at least five clusters of conceptualizations (UNDP, 2006). The first is income-poverty or its common proxy (because less unreliable to measure) consumption-poverty. This needs no elaboration. When many, especially economists, use the word poverty they are referring to these measures. Poverty is what can be and has been measured, and measurement and comparisons provide endless scope for debate

The second cluster of concepts is material lack or want. Besides income, this includes lack of or little wealth and lack or low quality of other assets such as shelter, clothing, furniture, personal means of transport and radios or television. This also tends to include no or poor access to services. A third cluster of concepts derives from Amartya Sen (1985), and is expressed as capability deprivation, referring to what we can or cannot do, can or cannot be. This includes but goes beyond material lack or want to include human capabilities, for example skills and physical abilities, and also self-respect in society.

A fourth cluster takes a yet more broadly multi-dimensional view of deprivation, with material lack or want as only one of several mutually reinforcing dimensions. These dimensions have been elicited in many contexts, most extensively perhaps in the World Bank's participatory research program Voices of the Poor were convened in small groups and facilitated to analyze and express their realities. There were many poverties or deprivations. Dimensions of the bad life included not only income-poverty and material lack, but many others, some of them represented in the web of poverty's disadvantages in the figure, for example poverty of time, living and working in bad places – "the places of the poor" and bad social, especially gender, relations. Others were the body as the main asset of many poor people, indivisible, uninsured, and vulnerable to flipping from asset to liability; many aspects of insecurity, worry and anxiety; and pervasively powerlessness (UNDP, 2006).

As can be clearly understood from what has been said so far, poverty can be conceptualized in different ways. In developing countries like Ethiopia, it is often conceptualized as mass poverty where more than half of the population lives in poverty.

Since the concept of poverty is multidimensional, there is no consensus in constructing a common framework. Consequently, the study will have a framework depicted hereunder

2.2 Review of Theoretical Literature

2.2.1 Definition of Poverty: An historical perspective

Historically, poverty has been related to income, which remains at the core of the concept today. However, "income" is itself no less problematic a concept than "poverty"; it too has to be carefully and precisely elaborated. Other resources such as assets, income in kind and subsidies to public services and employment should be imputed to arrive at a comprehensive but accurate measure of income (UNDP, 2006).

The understanding and relief of poverty has been a major human preoccupation for many centuries. Since the 1880s, three alternative conceptions of poverty have evolved as a basis for international and comparative work. They depend principally on the ideas of subsistence, basic needs and relative deprivation. The subsistence idea was a result of work prompted by nutritionists in Victorian England. Families were defined to be in poverty when their incomes were not "sufficient to obtain the minimum necessaries for the maintenance of merely physical efficiency". A family was treated as being in poverty if its income minus rent fell short of the poverty line. Although allowance was made in calculating the income level for clothing, fuel and some other items, this allowance was very small, and food accounted for much the greatest share of subsistence. The "basic needs" concept is an extension of the subsistence concept. In addition to material needs for individual physical survival and efficiency, there are the facilities and services—for health care, sanitation and education—required by local communities and populations as a whole (UNDP, 2006).

In the late 20th century, a third social formulation of the meaning of poverty was developed: relative deprivation. "Relativity" as suggested above, applies to both income and other resources and also to material and social conditions. In the 21st century, societies are passing through such rapid change that a poverty standard devised at some historical date in the past is difficult to justify under new conditions. People living in the present are

not subject to the same laws, obligations and customs that applied to a previous era (UNDP, 2006).

2.2.2 Poverty Measurement Approach

Poverty Measurement Approach

One-dimensional Poverty Measurement Approach: the traditional one-dimensional poverty measurement is income or consumption poverty measurement approach.

Income (Consumption) Measurement Approach: Income poverty measurement assumes that is a well-defined level of standards of living poverty line, «below which a person is deemed to be poor. A welfarist approach sets this in terms of a references utility level that can be thought of as a poverty line in utility space. In consumption space, the poverty line is the point on the consumer's cost function corresponding to that reference utility that is the minimum expenditure needed to attain that utility**.**

2.2.3 Poverty Indices

There two main category of poverty indices

2.2.3.1 Income level indices

Morduch (2002) discussed four measures of poverty with ongoing tensions between the desire for simplicity and transparency pitched against the desire for rigor; this measures being compared in that light. The measures are discussed below, all described in terms of shortfalls of "income". The focus on income keeps discussion simple, but the measures may instead be used to gauge shortfalls in consumption and spending

Incidence of Poverty (Headcount Index): This share of the population whose income/consumption is below the poverty line that is the share of the population that cannot afford to buy basket of goods**.**

Depth of poverty (Poverty gap): this provides information regarding how far households are from the poverty line. This measure captures the mean aggregate income/consumption shortfall relative to the poverty line across the whole population.

Poverty Severity (Squared poverty gap): this takes into account not only the distance separating the poor from the poverty line (the poverty gap) but also the inequality among the poor. That is, a higher weight is placed on those households who are further away from the poverty line**.**

2.2.3.2 Composite Poverty Indices

Poverty includes many aspects like lack of freedom, education and health, inability to participate in decision-making, lack of personal security, inability to participate in the life of a community and threats to sustainability and intergenerational equity etc. which cannot be measured. Various international institutions have tried to introduce a number of composite indexes of poverty measurements.

Few of the composite indexes have tried to add more variable in the measurements of poverty.Human Development Index (HDI) and Human Poverty Index (HPI) are some of the composite index which was introduced by the UN.

1. Human Development Indexes: Summery of human development .It measure the average achievement in a country in three dimensions of human development. A 'long and healthy life, as measured by life expectancy at birth; knowledge as measured by the adult literacy rate(with two-third weight) and the combined primary ,secondary and tertiary gross enrollment ratio(with one-third weight); and a decent standards of living ;as measured by GDP per capita in purchasing power parity(PPP) terms in US dollar.

2. Human Poverty Index (HPI): measure deprivation in three basic dimensions of human development

- A long and healthy life-vulnerability to death at a relatively early age as measured by the probability at birth of not surviving to age 40,
- Knowledge –exclusion from the world of reading and communication, as measured by adult illiteracy rate,
- A decent standards of living- a lack of access to overall economic provisioning , as measured by the unweighted average of the two indicators, the percentage of the population not using an improved water sources and the percentage of children under weight for age

3. Multidimensional Poverty Index (MPI): is a new measure designed to capture the severe deprivations that people face at the same time. The MPI reflects both the incidence of the multidimensional deprivation, and its intensity how many deprivations people experience at the same time. It can be used as to create a comprehensive picture of people living in poverty, and permit comparison both across countries, regions and world and within the countries by ethnic groups, rural/urban location as well as other key households and community characteristics.

The MPI replace the HPI, which had been published since 1997, pioneering, its day, the HPI use country averages to reflect aggregate deprivation in health, education and standards of living. It could not specific individuals, households or larger group of people as jointly deprived. The MPI address this shortcoming by capturing how many people experience overlapping deprivation (incidence) and how many deprivations they face on average (intensity)

Multidimensional poverty Index is an index is designed to measure acute poverty. Acute poverty refers to two main characteristics .First ,it includes people living they don't reach the minimum internationally agreed standards in indicators of basic functioning's, such as being well household ,being educated or drinking clean water .Second, it refers to people living under conditioning where they do not reach the minimum standards' in several aspects at the same time. In other words ,the MPI measures those experiencing multiple deprivation ,people who, for example are both under nourished and do not have clean drinking water ,adequate sanitation clean fuel.

The MPI combines two key pieces of information to measure acute poverty: the incidence of poverty, or the proportion of people (within a given population) who experience multiple deprivations, and the intensity of their deprivation, the average proportioning (weighted) deprivation they experience.

Both the incidence and intensity of these deprivations are highly relevant pieces of information for poverty measurement. To start with the proportion of poor people is a necessary measure.

2.2.4 Urban poverty: Definitions, Concepts and Measurement

There is no consensus on a definition of urban poverty but two broad complementary approaches are prevalent: economic and anthropological interpretations. Conventional economic definitions use income or consumption complemented by a range of other social indicators such as life expectancy, infant mortality, nutrition, the proportion of the household budget spent on food, literacy, school enrolment rates, access to health clinics or drinking water, to classify poor groups against a common index of material welfare. Alternative interpretations developed largely by rural anthropologists and social planners working with rural communities in the Third World allow for local variation in the meaning of poverty, and expand the definition to encompass perceptions of non-material deprivation and social differentiation (Wratten 1995; Satterthwaite 1995a).But there are attempts to define poverty accordingly.

Poverty can be classified into rural and urban poverty according to incidence of poverty in urban and rural areas. Rural area poverty mainly connected with agricultural natural resources that depends on natural resources such as, land, climate, water and roads etc. Limited access of land, water and failure of rainfall affect crop production. Lack of road that hampers economic communication between rural and urban poverty. In addition to this drought is another main cause factor that affecting rural area poverty level of incidence and severity. In comparison with rural poverty, urban poverty has great relationship with industrial and commercial economy that depends on market factors. For example, when the demand of labor is increase than the supply, unemployment will decrease and labor price increase and urban income poverty will decrease. Similarly, when the reverse is happen in demand and supply of labor, labor price will decrease, unemployment and urban income poverty will increase. So, urban households are more vulnerable to economic shock than rural households, because their economy not rely or depend on self-production like rural households. Urban income inequality between poor and rich is larger than rural areas.

Anthropological studies of poverty have shown that people's own conceptions of disadvantage often differ from those of professional experts. Great value is attached to qualitative dimensions such as independence, security, self-respect, identity, close and no

exploitative social relationships, decision-making freedom and legal and political rights (Masika, 1997).

It is now widely recognized that the rapid growth of urban populations has led to a worsening in absolute and relative poverty in urban areas. Urban poverty has, until recently, been low on the agenda of development policy because of dominant perceptions of urban bias and the need to counter this with a focus on rural development policy. However, policy interest in urban issues is increasing as a result of two phenomena: (1) projections of a large and increasing proportion of poor people living in urban areas, partly as a result of urbanization; and (2) claims that structural adjustment programmes - which have removed some of the urban bias, by removing price distortions - have lead to a much faster increase in urban poverty than rural poverty (Masika, 1997).

All in all, the crucial determinants of poverty among the majority of mega-cities, and big urban areas and nowadays even to medium towns of the third world can be summarized as: low levels of physical and human capital, unequal distribution of productive assets, inadequate access to social services, high fertility especially amongst the urban poor, and urban development strategies which are biased against labor absorption (Oberia, 1993).

Features of Urban Poverty

Most studies attempting to describe urban poverty have focused on drawing out the features of urban poverty, often by comparing rural with urban poverty. However, there is still much debate as to whether urban poverty differs from rural poverty and whether policies to address the two should focus on different aspects of poverty. In some view, rural and urban poverty are interrelated and there is a need to consider both urban and rural poverty together for they have many structural constraint opportunities and macroeconomic policies. Many points to the important connections between the two, as household livelihood or survival strategies have both rural and urban components (Satterthwaite, 1995).Backer (1995) and Wratten (1995) illustrates this point in terms of rural-urban migration, seasonal labor, remittances and family support networks. Backer (1995) illustrates how urban rural households adopt a range of diversification strategies, by having one foot in rural and one foot in urban..

2.3 Review of the Ethiopian Case

Macroeconomic Performance of Ethiopia

As indicated by the successive Annual Progress Reports (APRs) in the past three years in Sustainable Development and Poverty Reduction Program(SDPRP), the Ethiopian economy had registered encouraging but mixed results, with negative real Gross Domestic Product (GDP) growth rate of 3.3% in 2002/03 as a result of drought, followed by strong positive performance of 11.9% and 10.6% during the subsequent two years, 2003/04 and 2004/05 respectively. Consequently, during 2002/03-2004/05, annual real GDP growth averaged 6.4%. All economic and social sectors have contributed to the growth achieved in overall GDP. The registered GDP growth rate, in comparison with the population growth rate of an average of 2.75%, implies that the average annual per capita income growth rate was 3.65%. (MoFED, September, 2006)

During the first four years of GTP implementation period (2010/11-2013/14), real GDP growth rate averaged 10.1 percent, slightly lower than the target set for the period. Agriculture, industry and services have registered an annual average growth rate of 6.6 percent, 20 percent and 10.7 percent respectively. Thus, the growth rate registered during the first four years of GTP implementation was double the Sub-Saharan Africa (SSA) average growth rate of 5 percent.

During the last five years (2010/11-2015/16) of GTP implementation, the share of agriculture, industry and service in GDP averaged at 38.5 percent, 15.2 percent and 46.3 percent, respectively. The share of manufacturing (both micro and small scale and large and medium scale manufacturing) averaged about 5% of GDP. Nearly 50% of the share of industry in GDP is accounted for by the construction sector during the same period. There is shift in the structure of the economy, though, not on the scale and speed required. Thus, the process needs to be accelerated to bring about a significant shift in the structure of the economy.Particularly, to set the economy on a rapid process of industrialization and structural transformation. This entails extensively promoting investment in manufacturing even further, enhancing productivity of agriculture so as to support the process of industrialization and export development. (NPC, GTPII, 2016)

As set out in the first GTP, achieving an annual average real GDP growth rate of 11 % while maintaining macroeconomic stability has been the key objective of the Government. However, inflationary pressure emerged as a major macroeconomic challenge during the first two years (2010/11 through 2011/12) of GTP implementation in which general inflation increased to 18% and 33.7%, respectively. It was brought down to 8.1% in 2013/14 and 7.7% in 2014/15, respectively through the Government's concurrent and effective policy and administrative measures. According to the report by the Central Statistical Agency, the general inflation rate for the final year of GTP (2014/15) estimated at 9.5%. Both internal and external factors contributed to the inflationary pressure. (NPC, GTPII, 2016).

2.3.1 National Poverty Profile

The nature of poverty in the period 1995-2013

Table1 shows the trend in poverty in Ethiopia in the period 1995-2010/11. It is based on detailed household level data collected both by the government and the Department of Economics of Addis Ababa University in collaboration with various partners (University of Oxford, Gothenburg University and IFPRI). The government's official income poverty level in 2010/11 is computed based on a poverty line of Birr 3,781 per year per adult equivalent. This is a daily equivalent of Birr 10.50 per adult equivalent (about 0.50 United States dollar, USD) (The food poverty line is Birr 5.4 (0.27 USD)). Given the galloping inflation in the country since 2005, this is an extremely small amount of money to live on, even by Ethiopian standards. Notwithstanding this, using the official income based measure (head count ratio, called P0 index), the latest information shows that in 2010/11, 30 percent of Ethiopians (about 27 million people) were poor - a significant fall from 2004/5 when the figure was 38.7 percent. Poverty is slightly higher in rural (30 percent) than urban areas (26.1 percent). Over the same period, the poverty gap index (called P13 index) fell from 8.3 percent in 2004/5 to 7.8 percent in 2010/11, indicating a reduction in the intensity of poverty. The poverty gap index may be interpreted as the average cost per capita of eradicating poverty as a percentage of the poverty line. The poverty index therefore implies that, to eliminate poverty, the government of Ethiopia would need to invest 7.8 percent of the poverty line per capita. Despite the reduction in headcount poverty

and the poverty gap, there has been an increase in the severity of poverty, as measured by the increase in the poverty gap squared (called P2 index)4 from 2.7 percent in 2004/5 to 3.1 percent in 2010/11. This means that the poorest people were worse off in 2010/11 than they were in 2004/5. This also implies that the poorest are vulnerable to further poverty if poverty eradication resources and programs do not specifically target and reach them. (See Table 1)

Table1: Ethiopia Indicators of poverty (1995-2010/11)

Period	CSA, Nationally Representative Data			
1995/96	National	Urban	Rural	Addis Ababa
Headcount	0.45	0.33	0.47	0.30
Poverty Gap Index	0.120	0.099	0.134	
Poverty Severity Index	0.051	0.041	0.053	
1999/00				
Headcount	0.44	0.37	0.45	0.36
Poverty Gap Index	0.119	0.101	0.122	
Poverty Severity Index	0.045	0.039	0.046	
2004/5				
Headcount	0.39	0.35	0.39	0.33
Poverty Gap Index	0.083	0.077	0.085	
Poverty Severity Index	0.027	0.026	0.027	
2010/11				
Headcount	0.296	0.26	0.30	0.28
Poverty Gap Index	0.078	0.069	0.08	
Poverty Severity Index	0.0310	0.027	0.032	

Source: MOFED, 2012

Economic Growth Income-Poverty elasticity and sectoral composition

To investigate the role of growth in reducing poverty, nationally, and separately for urban and rural regions in Ethiopia had used and calculated the "income elasticity of poverty"

which shows how much poverty reduction one can expect from a given rate of growth. These calculations have been used frequently in policy discussions at the global level, and estimates range from -0.5 to -0.2. To interpret, this means that with an elasticity of -2, a one percent increase in consumption (the growth rate) translates into a two percent reduction in the headcount rate of poverty. This upper rate was used in the 2002 influential paper by Collier and Dollar "Growth is good for the poor". Kalwij and Verschoor (2005) undertake a detailed study of such elasticity in many countries of the world, and find significant differences across global regions. In Africa they find an income elasticity of poverty of around -0.8. The highest regional elasticity is in Eastern Europe and the Middle East, and the lowest in South Asia. Their overall global estimate is around -1, i.e. for every percent growth in income there is a corresponding one-for-one percent change in the headcount rate of poverty. (Development and Poverty Reduction 2005/06-2010/11, MoFED)

In the 2004/5 poverty report the Ethiopian income elasticity of poverty was calculated as -1.7, somewhat higher than the Africa region as a whole. But In 2010/11 the Ethiopian income elasticity of poverty updated estimates based on the latest 2010/2011 HICE.

Table 2: Income Elasticity of Poverty Estimates 1996-2011

	Elasticity of poverty
Rural	-1.972
Urban	-1.396
National	-1.943

Source: HICE, 2010/11 and MoFED (2011)

Status and changes in national, rural and urban poverty

Status of poverty and inequality: According to the 2010/11 HICES, the proportion of poor people (poverty head count index) in the country is estimated to be 29.6% in 2010/11 (Table 3). In 2010/11, while the proportion of the population below the poverty line stood at 30.4% in rural areas, it is estimated to be 25.7% in urban areas. The national level poverty gap index is estimated to be7.8% while it is 8.0% for rural areas and 6.9% for urban areas. Similarly, the national level poverty severity index stood at 0.031 with rural poverty severity index (0.032) being slightly higher than that of urban areas (0.027).

Between 2004/05 and 2010/11, income (consumption) inequality measured by Gini Coefficient has shown a slight decline from 0.3 in 2004/05 to 0.298 in 2010/11. Inequality as measured by the coefficient has declined in urban areas from 0.44 to 0.37, while rural inequality increased from 0.26 to 0.27 though inequality is still higher in urban than in rural areas.

Table 3: Poverty head count indices and inequality in 2010/2011

Total Poverty	**Gini-Coefficient (Income inequality)**
Urban	**0.371**
Rural	**0.274**
Total	**0.298**

2.3.2 The Poverty Profile of Urban Ethiopia

According to a study by Gebremedhin (2006), the mean consumption expenditure per adult equivalent has been computed for urban Ethiopia and each of the urban centers to highlight the average standard of living enjoyed by the urban society. The average consumption for urban Ethiopia was 151 Birr in 1994, but this masks substantial variation across urban centers. The highest figure was recorded in the city of Dire Dawa, followed by Bahir Dar,Awassa, Dessie, Addis Ababa, Jimma and Mekelle. There was a 6 percent decline in real mean consumption per adult equivalent between 1994 and 2000 for urban Ethiopia.Similarly, there was a decrease in all the cities with the exception of Awassa and Mekelle during the period. Specifically, significant declines were recorded in Dire Dawa, Dessie and Bahir Dar where the mean consumption per adult equivalent fell by 26, 25 and 21 percentage points respectively. Conversely, there was an increase in Mekelle and Awassa by 41 and 16 percent respectively.

The literature dealing with poverty in Ethiopia is limited, reflecting the lack of an appropriate and reliable household survey data that would allow the comparison of welfare across time. Since the early 1990's, however, periodic household surveys have been conducted that have facilitated the analysis of both urban and rural poverty. One of the earliest attempts to examine urban poverty in Ethiopia was by Tadesse (1996) using the 1994 Ethiopian Urban Household Survey (EUHS). The survey provided, among other things, information on the demographic and consumption behavior of 1,500 households randomly selected from seven urban centers of the country.

Dercon and Tadesse (1999) made a comparison of rural and urban poverty using the 1994 rounds of the ERHS and EUHS. Different poverty lines were derived in the study to overcome potential problems that could arise due to differences in household needs, prices and tastes across rural and urban areas. Thus, poverty lines were defined using four different food baskets; one national, one each for cereal and *enset* (false banana) growing regions of rural areas, and another for urban areas. The cost of basic needs approach described in Ravallion and Bidani (1994) was used in estimating the poverty lines. The findings suggest that urban poverty is much higher than rural poverty when region specific food baskets are used as opposed to a single national basket. This finding is consistent with the hypothesis that expensive sources of calories are consumed in urban areas. *Enset* growing rural regions were found to be much poorer when a single basket was used, confirming the role of *enset* as a low cost calorie source. Nevertheless, the difference in poverty between urban and rural areas was found to be small on average.

While some aspects of poverty experience vary according to context, others are universal. In their 'consultations with the poor' for the World Bank WDR 2000/01 (10 sites in three areas of Ethiopia, rural and urban), Rahmato and Aklilu (2000) found that three terminologies predominated: terminologies that indicate no future (e.g. 'Life is from hand to mouth', We envy the dead'); terminologies that indicate hopelessness and desperation ('Waiting to die while seated', 'we are full of debt'); and terminologies that indicate hunger and food insecurity ('We live on coffee, We eat when we have the means, and we go to bed hungry when we don't'). In the rural sites focus groups identified four major categories: wealthy farmers, those in the middle getting by, and poor farmers/daily

laborers, and 'the disabled' (physically disabled, sick and elderly). In the urban sites participants identified four categories: the well-to-do, those with middle income, the poor and the very poor (including the elderly, the disabled and the homeless.

Abbi and Andrew (2003) analyzed the status of chronic poverty in urban Ethiopia. They conducted their study in three waves of panel data set on 1500 households collected through the Ethiopian Urban Household Surveys from 1994 to 1997. By making use of both descriptive and econometric evidence, their study showed the extent of chronic and transitory poverty in urban Ethiopia identified the characteristics of the poor and determinants that explain chronic and transitory poverty. They examined the robustness of the pattern and trends of poverty suggested by the quantitative evidence by linking the subjective evaluation of welfare changes by households between two time periods. They conducted the study in the primate city –Addis Ababa and other secondary cities- Bahir Dar, Nazereth, Dire Dawa, Mekelle, Awassa, Jimma, and Dessie.

They analyzed poverty trends between 1994 and 1997 in the average welfare of 1045(whereby 555 are the rejected cases) household in the panel as measured by real total expenditure per adult equivalent. They used total household consumption expenditure as a best proxy for analysis because they found out that, in their survey, income has been reported by a much smaller number of households. Using this, they found out that during 1994-1997, median consumption expenditure per adult declined for the total sample from 100.46 to 73.4 ETB. This decline, according to their study, is evident in all regions, is monotonic over the period, and is particularly apparent between 1994 and 1995. Overall, their result suggested that household welfare deteriorated in urban Ethiopia between the years considered.

In the second and third waves of their study (1995 &1997) Abbi and Andrew asked household's questions related to changes in household income, expenditure, and living standards since 1994 interview. The three questions asked to households were (a) how has the household's income changed since 1994 interview? (b) how has households expenditure on basic needs changed since 1994 interview? and (c) to what extent did the living standard of the households change since 1994 interview? The responses to these

questions, though individual perceptions, match to that of the quantitative evidence on poverty transitions between any two periods.

In general, their study confirm that 40 percent of the case indicated that there is a significant match between the change depicted by the quantitative evidence which shows that the percentage of their income change is close to the percentage on standard of living changes. The study further revealed that the correspondence between the subjective evaluations responses based on income and standard of living opposed to expenditure. Over all, the finding showed an increase in the incidence of urban poverty...

Education is the fundamental basis for human development. Evidences accumulated from Africa, Asia, and Latin America show that an increase in coverage of basic education increases the rate of economic growth, improve agricultural productivity, increases employability of the labor force, reduces infant and maternal mortality, and helps slow down population growth. Therefore, any long-term strategy to alleviate poverty in Ethiopia must be linked closely to improvements on the quality and quantity of education (Asmamaw, 2004).

A study by Michael (2004) tried to analyze how households in different socio-economic levels shared the benefits from public sectors expenditures on health. The study assumedthat access to health service would increase a household welfare thereby reducing poverty.His findings indicated that households in the bottom quintile have managed to utilize health services relatively more than those in the upper expenditure intervals, which is, contrary to the commonly held assumptions. Excepting the metropolitan-Addis Ababa, urban areas in Ethiopia are highly constrained by health services. Some of which include: lack of better organized health facilities, laboratories, medical schools, general hospitals, nursing schools, highly trained specialists and nursing aids, improved finance of medical services, private hospitals and clinics and free medical aid to the poor. In the little presence/ absence of these variables and coupled with poor sanitation in urban areas, it is highly unlikely that productive forces residing in these areas lead healthy life and challenge the burden of urban poverty to a commendable manner (Esubalew, 2006).

There has been a decline in investment in urban infrastructure such as transport, sanitation, and water provision in many developing country cities. Official statistics suggest that by the early 1990s more than 80 percent of the urban population in Africa, Asia and Latin America were 'adequately served' with water, at least a third have no proper sanitation, and three fifths were not connected to a public sewerage system (Satterthwaite 1995b).

Urban areas of Ethiopia are still constrained by sufficient quantity and quality of water, and adequate energy services. It becomes common that water related diseases like Giardia and Amoeba are affecting most people due in part to lack of pure water (Esubalew, 2006). Worse still with regards to Harar town is there had not been, and still there is no, permanent supply of water for the last couple of years. The water project planned and executed has been constrained by various factors. Its impacts can clearly be manifested via problems of health and sanitation.

Lack of access to secure and safe housing is a central feature of urban poverty. At least 600 million urban dwellers in Africa, Asia and Latin America live in housing that is so overcrowded and of such poor quality, with such inadequate provision for water, sanitation, drainage and garbage collection that their lives and their health is continually at risk (UNDP, 2006). Masika (1997) explained housing as an important productive asset since access to credit to secure a livelihood may depend on property ownership. The price and availability of land for housing remains an important influence on housing prices and conditions leading to the development of illegal or informal land markets, where the poor have limited capacity to pay. Quantity, quality, accessibility and tenure of housing are all important and have gender-specific dimensions.

While analyzing the correlation between age and incidence of poverty, Grootaert (1995) used the data from Cote d' Ivore living standards survey, which was conducted annually from 1985 to 1988 for analyzing the determinants of poverty. Mekonnen (2002) studied the determinates and dynamics of urban poverty in Ethiopia by using data on a panel of households drawn from the Ethiopian urban socio-economic survey conducted by the Economics Department of Addis Ababa University. Both studies found out that the probability to be poor decreases as the age of the household head increases.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Data Type and Source

The study used both primary and secondary data from different data sources

Primary Source:-to obtain information on poverty in the town and to support the exploration and description of the empirical results of the study, focus group discussion was conducted with National Planning Commission, Central Statistical Agency, United Nations Development Programme, Ministry of Finance and Economic Cooperation senior experts on the issues of study.

Secondary Source: relevant documents to the study: Survey data, Books, research papers, Statistics, Ethiopia development strategic plan, progress and assessment reports. The main source of the House Hold Consumption Expenditure Survey (HCES) and Welfare Monitoring Survey (WMS) secondary survey data from CSA 2010/2011-2014/15 data set were from Central Statistical Agency (CSA) but other secondary data sources from NPC and MoFED development strategic plan and progress reports, World Bank report, UNDP report, OPHI report and from other related research document results**.**

3.2 Sample and Sampling Techniques

The study employed the sample Health Demographic Survey data collected in 2010/11 conducted by CSA.

3.3 Data collection instrument

Focus group discussion checklist questions were employed as instrument to gather primary data from government and non-government institutions. Secondary data was obtained from published and unpublished materials, books, journals, reports and CSA 2010/11 -2014/15 HCES, WMS and DHS data sets.

3.4 Data Presentation and Analysis

The analysis and presentation of the study is both quantitative and qualitative. Descriptive statistics, such as poverty line, incidence of poverty (H), Severity (A), poverty gap ratio,

MPI (Mo), graphs and tables, were used for presentation. These were obtained by making use of STATA 12 version along with OPHI Multidimensional poverty analysis stata command. Variables which play significant roles for the multidimensional poverty in Addis Ababa were analyzed through Alkire and Foster Accounting Method (AF).

3.5 Research Method

Alkire and Foster Accounting Method (AF)

This method is new multidimensional poverty measurement method that designed by Oxford Poverty Human Development Initiatives (OPHI) Sabina Alkire and Foster.The mehod is developed by constructing the well-being deprivation matrix of n persons × d dimensions of society by giving o for non-deprived dimension(indicator) and 1 for deprived dimension(indicator).

Adjusted Headcount Ratio = M0 = HA is the result of multiplication of H and A

Where

M0 is Adjusted Head Count or Multidimensional Poverty Index (MPI)

H is multidimensional poverty Incidence or the percentage of poor population in selected dimensions or indicators

A is multidimensional poverty Intensity or the average deprivation share among the multidimensional poor populations

The Alkire and Foster Accounting Method (AF) has two cutoff

1. Deprivation cutoff (Z) is deprivation line for each selected indicators by the researcher to determine whether a person is deprived or not that in selected indicators by the study

2. Poverty Cutoff (K) is the overall poverty line to determine whether the population is under or above the multidimensional poor index .It is range between 0-1 or 0%-100%.It is decided by normative judgment of the government or the researcher .The OPHI used for global multidimensional poverty analysis of poverty cutoff (K)=33.33% .

To measure the multidimensional poverty level of Addis Ababa the selected dimensions by the study were health, education and standards of living dimension and under the above selected three dimensions, the six selected indicators by the study were access to safe

water, distance to access to safe water, access to electricity, small asset ownership, household level of education and number of living children.

The study employed deprivation cutoff (Z) for the selected six indicators as follow

(i) Access to safe Water : the household is deprived if: it gets water from an unprotected well, unprotected spring; river/dam/stream/pond/canal; tanker truck, cart with small tank;

(ii) Access to electricity: the household is deprived if household has no electricity access;

(iii) Small asset ownership: the household is deprived if the household has less than 2 small assets among radio, television, refrigerator, bicycle, motorcycle;

(iv) Distance to Water: the household is deprived if the household has no access of safe drinking water within MDG standards distance (within 45 minutes distance);

(v) Number of living Children: the houshold is deprived if the household number of living children is less than two;

(vi) Household level of Education: the household is deprived if the household has no education or incomplete primary school.

The overall Poverty Cutoff (K) to determine whether the population is under or above the multidimensional poor index determined by the study were K=20% and 40 %.(see Table 4)

After identification, selection of dimensions and indicators, determination of deprivation cutoff (z) and poverty cutoff (K).it is mandatory to give weight for each dimension and indicators .The sum of the three dimensions weight should be equal to 1 or 100% and similarly the sum of the selected six indicators weight should be equal to 1 or 100%.

Education, health and standards of living dimensions are equally weighted of 1/3 or 33.33 by the study. But the weight for access to save water 1/12, access to electricity 1/12, small asset ownership 1/12, distance to access to save water 1/12, number of living children 1/3, household level of education 1/3 were given by the study.(Table:4)

Table 4: **Dimensions and indicators selection criteria**

Indicators	**Weight**	**The household is considered deprived on that dimension if:**
Access to safe Water	1/12	A household is deprived if: it gets water from an unprotected well, unprotected spring; river/dam/stream/pond/canal; tanker truck, cart with small tank,
Access to electricity	1/12	A household is deprived if household has no electricity access
Small asset ownreship	1/12	A household is deprived if it has less than 2 small assets among radio television,refrigerator,bicycle,motorcycle
Distance to access to safe water	1/12	A household is deprived if drinking water distance is within MDG standards (45 minutes distance)
Number of iving children	1/3	A houshold is deprived if the number of living children is less than two
Household level of education	1/3	A household is deprived if household has no education or incomplete primary school
Total	1	

CHAPTER FOUR

FINDINGS AND ANALYSIS

The data utilized in this study are from the national HCES,WMS and DHS of 2010/11-2014/15 data sets. The surveys were carried out by the Central Stastistics Agency (CSA).As indicated in Table 9, a total of six indicators are used to measure poverty. The selected Education and health and standards of living dimensions are equally weighted of 1/3 or 33.33.Number of living children and household level of education indicators are equally weighted of 1/3 or 33.33for but the weight for safe to water, electricity asset and distance to safe water weighted of 1/12. (See, Table 4)

The multidimensional poverty analysis using Alkire Foster method and stata multidimensional poverty analysis command of OPHI at k=20% and k=40% poverty cutoff ,the multidimensional poverty analysis results are presented below

4.1.National Raw Head Counts

National raw head count or national uncenssord head count is the percentage of people who are deprived in the selected six indicators (access to safe water ,safe water acess within 45 minutes distance,access to electricity ,household small asset ownershiop ,number of living children ,household level of education) whether these people are multidimensional poor or not.As shown the Figure 1, 47 percent of people are deprived in access to safe water or 47 percent households gets water access from an unprotected well, unprotected spring; river/ dam/stream/ pond/canal; tanker truck, cart with small tank, 36 percent of people deprived in safe water access within 45 minutes distance (MDG two less than 45 minute standards) or 36 percent of people households get safe water access with more than 45 minutes distance , 89 percent of people are deprived in small assets ownership or 89 percent households has less than two number of small assets among radio, television,refrigerator,bicycle, motorcycle ,80 percent of people are deprived in access to electricity ,94 percent of household head has no education or incomplete primary schools and 19 percent household has with less than two the number of living children or 19 percent of people are deprived in living children .The above raw headcount or indicators deprivation results did not indicates the percentages of people deprivation by the selected all six indicators at the same time.

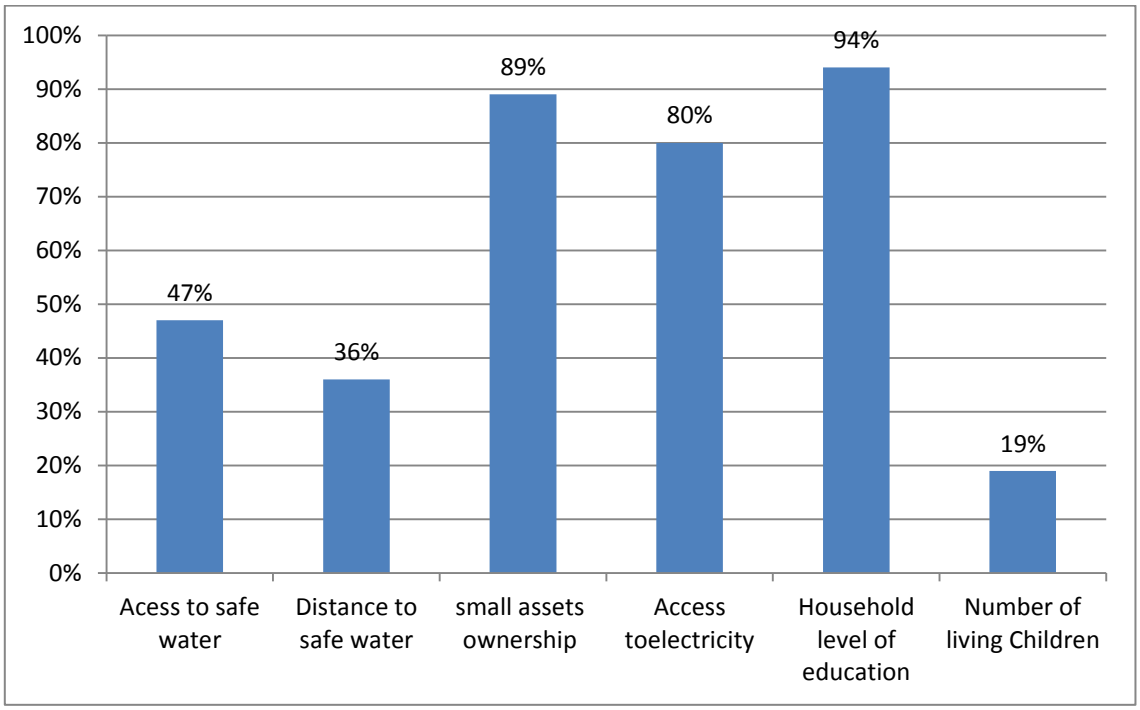

Figure 1 :National Raw Headcounts by Percent

4.2. National Censored Head Count

National censored head count is the percentage of people who are multidimensional poor and deprived in each selected six indicators (access to safe water ,safe water acess within 45 minutes distance,access to electricity ,household small asset ownershiop ,number of living children ,household level of education) at K=40% poverty cutoff. poverty cutoff K=40% means the people considered as multidimmnsional poor if the people are deprived at least 40% out of the selected six indicatots by the study (access to safe water ,safe water acess within 45 minutes distance,access to electricity ,household small asset ownershiop ,number of living children ,household level of education). As shown the Figure 2 below, at 40% poverty cutoff (k=40%) and at national level 46 percent multidimensional poor people are deprived in access to safe water or 46 percent multidimensional poor households gets water access from an unprotected well, unprotected spring; river/ dam/stream/ pond/canal; tanker truck, cart with small tank, ,35 percent of multidimensional people deprived in safe water access within 45 minutes distance (MDG two less than 45 minute standards) , 87 percent of people are deprived in small assets ownership or 87 percent multidimensional poor households has less than two number of

small assets among radio, television,refrigerator,bicycle, motorcycle ,79 percent multidimensional poor people are deprived in access to electricity,89 percent multidimensional poor people are deprived in household head level of education or 89 percent household head has no education or not completed primary schools and 4 percent multidimensional poor people are deprived in the number of living children. The National censored head counts is completely different from that of national raw head count, because the national censored head count indicates the percentage of people who are multidimensional poor and deprived in selected indicator with determined poverty cutoff. Whereas national raw head count explain percentage of people deprived in each selected indicators whether the people are multidimensional poor or not.

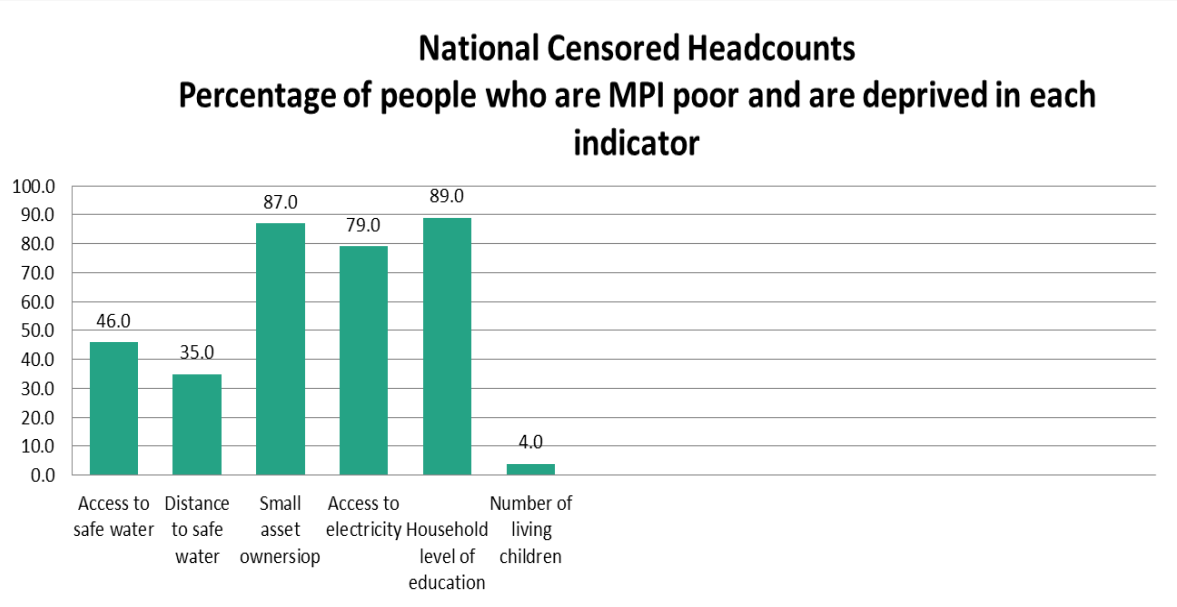

Figure 2: National Censored Headcounts at Poverty Cutoff (K=40%)

4.3 Percentage Contribution of Each Indicator at K=40%

The other results of the Alkire Foster method analysis is that, the contribution of each six indicators (access to safe water ,safe water acess within 45 minutes distance,access to electricity ,household small asset ownershiop ,number of living children ,household level of education) percentage of deprivation to the national multidimensional poverty level at 40 percent poverty cutofff of the study.As indicated in Table 5 below ,at national level with 40 percent poverty cutoff (k=40%) ,deprivation in access to safe water contributes 4 percent to national multidimensional poverty level, deprivation in safe water access

within 45 minutes distance (MDG two less than 45 minute standards) contribute 13 percent to the national multidimensional poverty level, deprivation in number of living children contributes 11percent to national multidimensional poverty level, deprivation in household head level of education contributes 2 percent to the national multidimensional poverty level, deprivation in household small asset ownership contributes 12 percent to the national multidimensional poverty level and deprivation in access to electricity contribute 58 percent for the overall national multidimensional poverty of the country based on the 2010/11 DHS data. This result showed that deprivation of electricity is the highest (58 percent) contributor to national overall multidimensional poverty, deprivation of small number of asset ownership contributes 12% (medium level of contribution) for the overall multidimensional poverty and deprivation of household education level contribute the lowest (2%) contribution for the multidimensional poverty among the selected dimensions and indicators.

Generally in terms of the selected three dimensions (health, education and living standards) ,deprivation in the living standard dimension contribute 87 percent for the overall multidimensional poverty, deprivation in Health dimension contribute 11 percent for the overall multidimensional poverty and deprivation in education dimension contribute 2 percent respectively for the national multidimensional poverty level at 40 percent poverty cutoff (k=40%) of the study.

Table 5: Percentage Contribution of Each Indicators for overall poverty at K=40%

	Dimensions	**Indicators**	**percent**
1	Health	Number of living children	11
2	Education	Household level of education	2
3	Standards of Living	Access to safe water	4
		Distance to Water	13
		Small asset ownership	12
		Access to electricity	58
Total			100

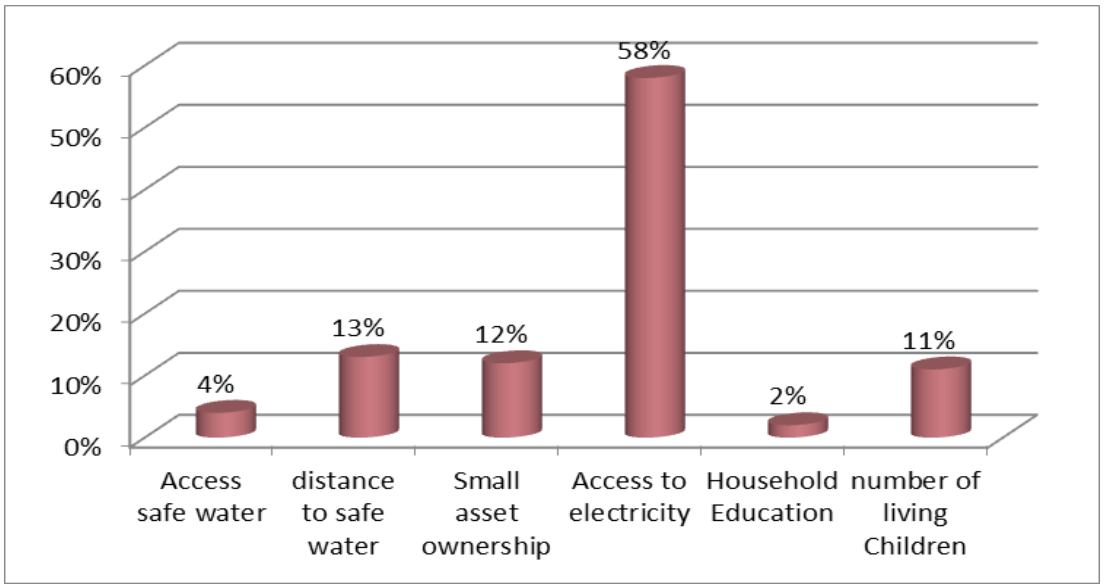

Figure 3: Percentage Contribution of Each Indicator at K=40%

4.4 Addis Ababa and Regions Uncensored Headcount Ratios

The uncensored headcount ratio by regions indicates, each regions percentages of deprivation by the six selected indicators (access to safe water ,safe water acess within 45 minutes distance,access to electricity ,household small asset ownershiop ,number of living children ,household level of education) .The uncensored headcount ratio does not indicate each deprivation by selected six indicators at the same time.

My Multidimensional Analysis result as indicated Table 6, regions deprivation in each selected indicators whether the regions considered as multidimensional poor or not are as follow but the deprivation is not at the same.

Regions access to safe water deprivation percentages indicates , in that amount of percentages of regions access water from an unprotected well, unprotected spring; river/ dam/stream/ pond/canal; tanker truck, cart with small tank . Whether the region multidimensional poor or not but not at the same time**.**

Based the regions uncensored headcount ratio results, Tigray deprived in access to safe water by 38 percent , Affar deprived in access to safe water by 67 percent, Amhara deprived in access to safe water by 51 percent, Oromiya deprived in access to safe water by 55 percent, and Somali deprived in access to safe water by 51 percent ,Benishangule

Gumiz deprived in access to safe water by 45 percent , SNNP deprived in access to safe water by 59 percent, Gambela deprived in access to safe water by 41 percent, Harari deprived in access to safe water by 22 percent , Addis Ababa deprived in access to safe water by 0 percent , Dire Dawa deprived in access to safe water by 47 percent whether the region multidimensional poor or not but not at the same time..

Regions access to safe water access within 45 minutes distance deprivation percentages indicates ,in that amount of percentages ,regions access safe water more than 45 minutes whether the region multidimensional poor or not but not at the same time**.**

Based the regions uncensored headcount ratio results, Tigray deprived in safe water access within 45 minutes distance (MDG two less than 45 minute standards by 93 percent, Affar deprived in safe water access within 45 minutes distance (MDG two less than 45 minute standards) by 93 percent, Amhara deprived in safe water access within 45 minutes distance (MDG two less than 45 minute standards) by 98 percent, Oromiya deprived in safe water access within 45 minutes distance (MDG two less than 45 minute standards) by 93 percent, Somali deprived in safe water access within 45 minutes distance (MDG two less than 45 minute standards) by 93 percent , Benishangule Gumiz deprived in safe water access within 45 minutes distance (MDG two less than 45 minute standards) by 94 percent, SNNP deprived in safe water access within 45 minutes distance (MDG two less than 45 minute standards) by 95 percent, Gambela deprived in safe water access within 45 minutes distance (MDG two less than 45 minute standards) by 92 percent, Harari deprived in safe water access within 45 minutes distance (MDG two less than 45 minute standards) by 69 percent, Addis Ababa deprived in safe water access within 45 minutes distance (MDG two less than 45 minute standards) by 27 percent, Dire Dawa deprived in safe water access within 45 minutes distance (MDG two less than 45 minute standards) by 76% percent whether the region multidimensional poor or not but not at the same time**.**

Regions small number of asset ownership deprivation percentages indicates; in that amount of percentages households in that region have less than two number of small asset among radio, television,refrigerator,bicycle, motorcycle. Whether the region multidimensional poor or not but not at the same time**.**

Based the regions uncensored headcount ratio results, Tigray deprived in household small number of assets ownership by 95 percent, Affar deprived in household small number of assets ownership by 98 percent, Amhara deprived in household small number of assets ownership by 98 percent, Oromiya deprived in household small number of assets ownership by 96 percent, Somali deprived in household small number of assets ownership by 98 percent, Benishangule Gumiz deprived in household small number of assets ownership by 98 percent, SNNP deprived in household small number of assets ownership by 97 percent, Gambela deprived in household small number of assets ownership by 93 percent , Harari deprived in household small number of assets ownership by 86 percent , Addis Ababa by 63 percent , Dire Dawa deprived in household small number of assets ownership by 89 percent whether the region multidimensional poor or not but not at the same time**.**

Regions access to electricity deprivation percentages indicates, in that amount of percentages regions people has no electricity access whether the region multidimensional poor or not but not at the same time**.**

Based the regions uncensored headcount ratio results ,Tigray deprived in access to electricity by 39 percent , Affar deprived in access to electricity by 68 percent , Amhara deprived in access to electricity by 30 percent , Oromiya deprived in access to electricity by 39 percent , Somali deprived in access to electricity by 59 percent, Benishangule Gumiz deprived in access to electricity by 10 percent , SNNP deprived in access to electricity by 34 percent , Gambela deprived in access to electricity by 12 percent , Harari deprived in access to electricity by 40 percent, Addis Ababa deprived in access to electricity by 8 percent , Dire Dawa deprived in access to electricity by 42 percent deprived in electricity. whether the region multidimensional poor or not but not at the same time.

Regions household head education deprivation percentages indicates, in that amount of percentages regions households head has no education or incomplete primary school. Whether the region multidimensional poor or not but not at the same time.

Based the regions uncensored headcount ratio results,Tigray deprived in household head education by 85 percent , Affar deprived in household head education by 85percent , Amhara deprived in household head education by 90 percent , Oromiya (86%), Somali

(85), Benishangule Gumiz deprived in household head education by 93 percent, SNNP (91%), Gambela deprived in household head education by 90 percent, Harari deprived in household head education by 28 percent, Addis Ababa deprived in household head education by (3%), Dire Dawa deprived in household head education by 56 percent ,whether the region multidimensional poor or not but not at the same time.

Regions deprivation percentages in household number of living children indicates, in that amount of percentages regions household head has less than two number of living children

Based the regions uncensored headcount ratio results Tigray deprived in household number of living children by 5 percent, Affar deprived in household number of living children by 5 percent, Amhara deprived in household number of living children by 5 percent , Oromiya deprived in household number of living children by 4 percent , Somali deprived in household number of living children by 4 percent, Benishangule Gumiz deprived in household number of living children by deprived in household number of living children by 6 percent, SNNP deprived in household number of living children by 3 percent , Gambela deprived in household number of living children by 9 percent , Harari deprived in household number of living children by 9 percent, Addis Ababa deprived in household number of living children by 8 percent , Dire Dawa deprived in household number of living children by 8 percent whether the region multidimensional poor or not but not at the same time.

Table 6: Addis Ababa and Regions Uncensored Headcount Ratio

Region	Access to safe water	Distance to safe water	Asset ownership	Access to electricity	Household level of education	Number of living children
Tigray	38	93	95	39	85	5
Affar	67	93	98	68	85	5
Amhara	51	98	98	30	90	5
Oromiya	55	93	96	39	86	4
Somali	51	93	98	59	85	4
Benishangle Gumuz	45	94	98	10	93	6
SNNP	59	95	97	34	91	3
Gambela	41	92	93	12	90	9
Harari	22	69	86	40	28	9
Addis Ababa	0	27	63	8	3	8
Dire Dawa	26	76	89	42	56	8
Total	47	89	94	36	80	6

4.5 Addis Ababa and Regions Poverty Incidence (H)

Incidence or the headcount ratio (H) is the percentage of people who are multidimensional poor in the selected health ,education and living standard three dimensions and access to safe water indicator,safe water acess within 45 minutes distance indicator,access to electricity indicator ,household small asset ownershiop indicator,number of living children indicator ,household level of education (six indicators)in the chosen poverty cutoff level (k=40%)and (K=20%) by the study.

As indicated in Table 7, at 40 percent poverty cutoff (K=40) in selected three dimensions and six indicators the incidence or the headcount ratio (H) of Addis Ababa regional states are: Tigray multidimensional incidence(H) is 92 percent , Affar multidimensional incidence(H) is 94 percent, Amhara multidimensional incidence (H) is 97 percent, Oromiya multidimensional incidence (H) is 93 percent, Somali multidimensional

incidence(H) is 96 percent ,Benishangule Gumiz multidimensional incidence (H) is 97 percent, SNNP multidimensional incidence(H) is 96 percent, Gambela multidimensional incidence(H) is 90 percent, Harari multidimensional incidence(H) is 70 percent, Addis Ababa multidimensional incidence(H) is 26 percent ,Dire Dawa multidimensional incidence (H) is 75 percent respectively. From this result Addis Ababa has the lowest incidence of poverty among the regional states and the national incidence of poverty is 89% at k=40% poverty cutoff.

But at 20 percent poverty cutoff (K=20) in selected three dimensions and six indicators the incidence or the headcount ratio (H) of Addis Ababa and regional states are:Tigray multidimensional incidence(H) at k=20% poverty cutoff is 96 percent , Affar multidimensional incidence(H) at k=20% poverty cutoff is 98 percent, Amhara multidimensional incidence(H) at k=20% poverty cutoff is 98 percent, Oromiya multidimensional incidence(H) at k=20% poverty cutoff is 97 percent, Somali multidimensional incidence(H)at k=20% poverty cutoff is 98 percent, Benishangule Gumiz multidimensional incidence(H) at k=20% poverty cutoff is 98 percent, SNNP multidimensional incidence(H) is at k=20% poverty cutoff is 98 percent, Gambela multidimensional incidence(H) is at k=20% poverty cutoff is 95 percent , Harari multidimensional incidence(H) is at k=20% poverty cutoff is 86% percent, Addis Ababa multidimensional incidence(H) is at k=20% poverty cutoff is 63 percent ,Dire Dawa multidimensional incidence(H) is at k=20% poverty cutoff is 89 percent respectively. From this result Addis Ababa has the lowest incidence of poverty among the regional states and the national incidence of poverty is 95% at k=20% poverty cutoff.

Table 7: Addis Ababa and Regions poverty incidence

Region	Mean at 20% Cutoff	Mean at 40% Cutoff
Tigray	96	92
Affar	98	94
Amhara	98	97
Oromiya	97	93
Somali	98	96
Benishangle Gumuz	98	97
SNNP	98	96
Gambela	95	90
Harari	86	70
Addis Ababa	63	26
Dire Dawa	89	75
Total	95	89

4.6Addis Ababa and Regions Intensity of Poverty (A)

Multidimensional Intensity of poverty (A) is the average shares of dimensions (proportion of weighted deprivations) people suffer at the same time. Intensity of poverty shows the joint distribution of their deprivations. It is share of deprivation multidimensional poor people.

The results of this thesis multidimensional intensity of poverty(A) analysis as indicated in Table 8 below, at 40 percent poverty cutoff (K=40) in three selected dimensions and six indicators the intensity of poverty of of Addis Ababa and regional states are: Tigray multidimensional intensity of poverty(A) is 56 percent , Affar multidimensional intensity of poverty(A) is 61 percent , Amhara multidimensional intensity of poverty(A) is 56 percent, Oromiya multidimensional intensity of poverty(A) is 57 percent,Somali multidimensional intensity of poverty(A) is 58 percent ,Benishangule Gumiz multidimensional intensity of poverty(A) is 54 percent , SNNP multidimensional intensity of poverty(A) is 57 percent , Gambela multidimensional intensity of poverty(A) is 54

percent, Harari multidimensional intensity of poverty(A) is 51 percent, Addis Ababa multidimensional intensity of poverty(A) is 43 percent ,Dire Dawa multidimensional intensity of poverty(A) is 55 percent respectively.

From this result even though Addis Ababa has the lowest intensity of poverty among the regional states, it is a significant sign the seriousness of the intensity. Except Affar is 61 percent and Addis Ababa (43) the remaining regions intensity of poverty are around the national average of 56 percent at k=40% poverty cutoff.

But at 20 percent poverty cutoff (K=20) in selected three dimensions and six indicators the multidimensional intensity of poverty (A) of Addis Ababa regional states are:Tigray multidimensional intensity of poverty(A) is 55 percent, Affar multidimensional intensity of poverty(A) is 59 percent, Amhara multidimensional intensity of poverty(A) is 55 percent, Oromiya multidimensional intensity of poverty(A) is 56 percent,Somali multidimensional intensity of poverty(A) is 57 percent ,Benishangule Gumiz multidimensional intensity of poverty(A) is 53 percent , SNNP multidimensional intensity of poverty(A) is 56 percent , Gambela multidimensional intensity of poverty(A) is 52 percent, Harari multidimensional intensity of poverty(A) is 48 percent, Addis Ababa multidimensional intensity of poverty(A) is 37 percent ,Dire Dawa multidimensional intensity of poverty(A) is 51 percent respectively.

Table 8: Addis Ababa and Regions Intensity of Poverty (A)

Region	Mean at 20 Cutoff	Mean at 40 Cutoff
Tigray	55	56
Affar	59	61
Amhara	55	56
Oromiya	56	57
Somali	57	58
Benishangle Gumuz	53	54
SNNP	56	57
Gambela	52	54
Harari	48	51
Addis Ababa	37	43
Dire Dawa	51	55
Total	55	56

4.7 Addis Ababa and National Multidimensional Poverty Index (MPI)

The MPI reflects both the incidence (H) of poverty – the proportion of the population that is multidimensional poor – and the average intensity (A) of their poverty – the average share of deprivation among multidimensional poor. The MPI is calculated by multiplying the incidence of poverty by the average intensity across the poor (H*A). Those identified as MPI poor are deprived in at least 20 % of weighted indicators for Addis Ababa and 40% for regional and national MPI. MPI=Mo=HA

The results of multidimensional Alkire and Foster Method analysis of this thesis for Addis Ababa and regions adjusted headcount ratio (MPI) in selected three dimensions and six indicators at k=40% poverty cutoff are:Tigray multidimensional poverty index at k=40% is 0.51, Affar multidimensional poverty index at k=40% is .057, Amhara multidimensional poverty index at k=40% is 0.54, Oromiya multidimensional poverty index at k=40% is 0.53,Somali multidimensional poverty index at k=40% is 0.56, Benishangule Gumiz multidimensional poverty index at k=40% is 0.52, SNNP multidimensional poverty index at k=40% is 0.55, Gambela multidimensional poverty

index at k=40% is 0.49, Harari multidimensional poverty index at k=40% is 0.36, Addis Ababa multidimensional poverty index at k=40% is 0.11%,Dire Dawa multidimensional poverty index at k=40% is 0.41 respectively. Addis Ababa has the lowest adjusted headcount ratio or multidimensional poverty index MPI 0.11 at 40% poverty cutoff among the regional states, Harari and Dire Dawa have medium MPI in the range of 0.36-0.41 but the remaining regions have the highest adjusted headcount ratio or MPI ranges between 0.49-0.57. This range is somewhat above the national adjusted headcount ratio or MPI 0.50 at k=40% poverty cutoff, (Table 9)

Table 9: Incidence Intensity and Adjusted Headcount Mo

Region	**Incidence**	**Intensity**	**Adjusted Head count (Mo=H × A)**
Tigray	92	56	51
Affar	94	61	57
Amhara	97	56	54
Oromiya	93	57	53
Somali	96	58	56
Benishangle Gumuz	97	54	52
SNNP	96	57	55
Gambela	90	54	49
Harari	70	51	36
Addis Ababa	26	43	11
Dire Dawa	75	55	41
Total	89	56	50

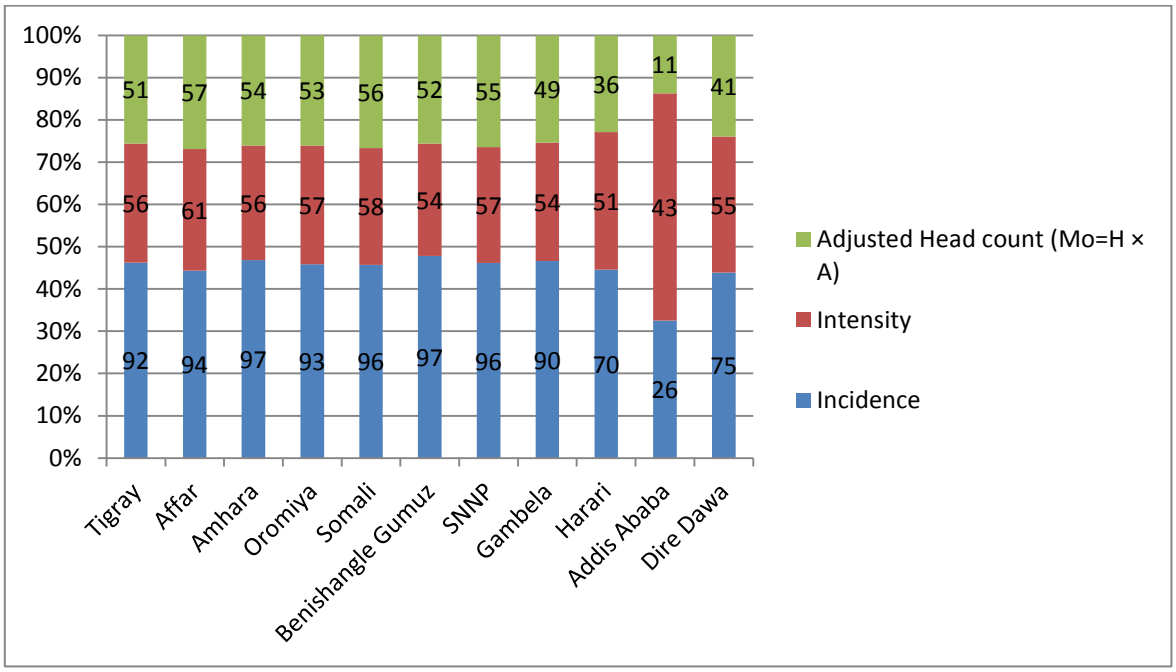

Figure 4: Incidence Intensity and Adjusted Headcount Ratio

4.8 Economic Growth, Income and Multidimensional Headcount Poverty Reduction

The overriding objective of the Ethiopia government is poverty reduction and ensuring sustainable development. Accordingly, the government designed and implemented four consecutive mid-term poverty reduction development plans. The progress poverty analysis reports of the government had indicated promising income level poverty reduction as a nation.

According to Ethiopia poverty estimation of income elasticity approach, one percent economic growth estimated to reduce the country income level of poverty by 1.94 % on national average .Based on this economic growth income elasticity estimation approach currently the national income poverty level is around 23.6% (NPC, GTP II).That means from the total number of population of the country around 23.6% are found under the national income poverty line. This is Promising achievement, even though did not able to show multidimensional poverty level of reduction of the country.Becuase there methodological measurement difference between them.

The Alkire and Foster multidimensional analysis results of this thesis showed that at k=40% poverty cutoff at national level 46% of multidimensional poor people deprived in

access to safe water, 35% multidimensional poor people deprived in access to safe water distance within 45 minutes, 87% multidimensional poor people deprived in access to small asset ownership ,79%multidimensional poor people deprived in access to electricity, 89% multidimensional poor people deprived in household level of education and 4% multidimensional poor people deprived in number of living children.

At national level the multidimensional incidence (H) at k=20% and K=40% poverty cutoff is 95% and 89% respectively whereas the multidimensional intensity is 55% and 56% respectively. But based poverty analysis result of this thesis, the national multidimensional headcount ratio (Mo=HA) at 40% poverty cutoff is 50% .That means at national level 50% of the population are in multidimensional poverty level.

When we compare the results of two economic growth elasticity of income poverty reduction at 2016 is 23.3 % but according to multidimensional poverty analysis the MPI is 50% .This results indicate that there is gap between incomes based poverty level (23.6%) and multidimensional poverty level (50%).

4.9 Economic Growth, income and multidimensional poverty of Addis Ababa

4.9.1 Headcount Ratio (Incidence)

Based on the Ethiopia second growth and transformation plan, the national income poverty level is including Addis Ababa is 23.4%.This indicates 23.4% of the Addis Ababa population below income poverty line. Whereas according to Addis Ababa Poverty assessment report of 2016, the Addis Ababa income poverty level is 18%.That is means 18% of the Addis Ababa Population is below income poverty line.

But thesis Alkier Foster multidimensional poverty analysis result indicated that at k=20% and at k=40% poverty cutoff the level of headcount ratio or Incidence (H) of Addis Ababa are 63% and 26% respectively .That means 63% of the Addis Ababa population is Multidimensional poor at k=20% and 26% of the Addis Ababa population is Multidimensional poor at k=20%. Based on this the number of people who are multidimensional poor of Addis Ababa and deprived in each selected indicators are 63%× 3,100,425 = 1,953,267 at k=20%, and 26% × 3,100,425=806110 at k=40% poverty cutoff respectively, which means 1,953,267 and 806110 Addis Ababa population are

multidimensional poor people at k=20% and k=40% poverty cutoff f respectively . The total population size of Addis Ababa that was estimated to be 2,850,499 in 2011 had increased to 3,100,425 in 2015 (Addis Ababa Poverty Assessment Report, 2016).

The Addis Ababa multidimensional incidence (H) is lower than the national multidimensional incidence (H) but higher than income headcount (23.4) at both k=20% and k=40% poverty cutoff.

4.9.2 Multidimensional Poverty Intensity (A) of Addis Ababa

Multidimensional Intensity of poverty (A) is defined as he average shares of deprivation among multidimensional poor people that suffer at the same time at k=20% and 40% poverty cutoff. This thesis analysis indicates that the Addis Ababa the multidimensional poverty intensity (A) level are 37% and 43% respectively in the selected three dimensions and six indicators of the study. This means 37% and 43% of multidimensional poor population of Addis Ababa share the deprivations of selected dimensions and suffer at the same time.

4.9.3 Addis Ababa Adjusted Headcount (Mo)

The MPI reflects both the incidence and headcount ratio (H) of poverty – the proportion of the population that is multidimensional poor – and the average intensity (A) of their poverty – the average proportion of indicators in which poor people are deprived. The MPI is calculated by multiplying the incidence of poverty by the average intensity across the poor (H*A). Mo is the weighted average of the censored headcount ratios. The adjusted Headcount ratio (Mo) of Addis Ababa at K=20% is Mo=H (63%) × A (37) = 23.3%.

The Addis Ababa adjusted headcount (Mo) is lower than national adjusted headcount (Mo) average but more than national income and Addis Ababa income headcount at k=20%.

4.9.4 Uncensored Headcount Ratio of Addis Ababa

The Addis Ababa uncensored headcount ratio analysis indicate that 27% of Addis Ababa population deprived in access to safe water distance within 45 minutes, 63% of Addis Ababa population deprived in small asset ownership, 8% of Addis Ababa population deprived in access to electricity, 3% of Addis Ababa population deprived in household

head education level (has no education or incomplete primary school), 8% of Addis Ababa population deprived in number of household living children and 0% of Addis Ababa population deprived access to safe water whether the people multidimensional poor or not but not at the same time.

This Addis Ababa Uncensored deprivation results is lower than the national uncensored deprivation averages in all dimensions and indicators.

4.10 Addis Ababa and National income and multidimensional Poverty

The percentage of population under the income poverty level of Addis Ababa 18.9% (Addis Ababa Poverty Assessment survey, 2016) but the result of this thesis shows that the adjusted Headcount ratio (Mo) at K=20% is Mo=H (63%) × A (37) = 23.3% and Addis Ababa Headcount ratio or Incidence (H) at 20% and 40% poverty cutoff are 63% and 26%, respectively. These two poverty measure results showed that both the incidence and adjusted multidimensional headcount ratio are higher than that of income level headcount ratio in Addis Ababa.

As indicated in Table 10 below the Addis Ababa at poverty cutoff K=20% the incidence, intensity and adjusted head count ratio are 63%, 37% and 23.3% whereas at k=40% 26%, 43% and 11%.But the national poverty level at k=40% is 89%, 56% and 50%.This analysis showed that Addis Ababa multidimensional poverty level is below the national poverty level. The large percentage of national poverty level dominated by rural poverty or deprivation.

Table 10: Addis Ababa and National Poverty level Multidimensional Poverty

Indices	Addis Ababa		National
	At k=20% poverty cutoff	At k=40% poverty cutoff	At k=40% poverty cutoff
Incidence (H)	63	26	89
Intensity (A)	37	43	56
Adjusted Headcount (Mo)	23.3	11	50

CHAPTER FIVE

CONCLUSION AND POLICY RECOMMENDATION

5.1 CONCLUSION

Poverty is the main development challenges of developing countries including Ethiopia. In developing countries poverty measurement and poverty reduction strategy had faced different constraints. Among the main constraints the first one is that it focuses on single indicator of income/consumption poverty measurement approach .This approach of poverty concept and measurement was criticized by different people who think measurement of poverty must include other variables other than level of income or consumption. Actually the utility (welfare) of the people was not only affected by income/consumption level but also due to non-income dimensions and indicators such as access and quality of education, health, living standards. The second one is most studies have been conducted at national level and rural areas focused with little consideration of urban areas. The third one is that, non-inclusive (inefficient and ineffective) poverty reduction strategy that had been prepared based on economic growth elasticity income/consumption poverty reduction approach and based on national average poverty reduction estimates. Because the nationally focused and income/consumption poverty measurement approach hide the poverty level of urban areas and non-income poverty dimensions of the country.

In Ethiopia also most poverty studies have been conducted in rural areas and attempts on urban centers are somehow little. Even some attempt poverty assessment studies of Addis Ababa had conducted by different actors are based on income based approach. Those studies did not able to show the multidimensional level of poverty Addis Ababa. The poverty reduction design and implementation is based on economic growth income elasticity poverty reduction approach as that follow national economic growth and poverty reduction poverty reduction appropriate.

The aim of this study is to explore Ethiopia economic growth elasticity of income poverty estimate and multidimensional poverty reduction in Addis Ababa using of Alkire Foster Method and evaluate poverty reduction efficiency with descriptive analysis. Data sources to carry out the study included both primary (focus group discussions and key informant interviews) and secondary sources of Household Consumption Expenditure Survey

(HCES), Demographic Health Survey (DHS) and Welfare Monitoring Survey (WMS) 2010/11-2014/15 of data was used.

During the last few decades, many efforts have been undertaken to explain and measure poverty. Today no one questions the importance of composite index to measure poverty in developed and developing countries. That is why OPHI introduced the new multidimensional measurements of poverty which is expected to replace HPI by Alkire and Foster Method.

My economic growth and poverty reduction research paper has the following conclusion points. The first conclusion of this thesis is related with Addis Ababa and National income and multidimensional Poverty. The percentage of population under the income poverty level of Addis Ababa 18.9% (Addis Ababa Poverty Assessment survey, 2016) but the result of this thesis shows that the adjusted Headcount ratio (Mo) at K=20% is Mo=H (63%) × A (37) = 23.3% and Addis Ababa Headcount ratio or Incidence (H) at 20% and 40% poverty cutoff are 63% and 26%, respectively. These two poverty measure results showed that both the incidence and adjusted multidimensional headcount ratio are higher than that of income level headcount ratio in Addis Ababa. The Addis Ababa the multidimensional poverty intensity (A) level are 37% and 43% respectively in the selected three dimensions and six indicators of the study. Addis Ababa multidimensional incidence (H) is lower than the national multidimensional incidence (H) but higher than income headcount (23.3) at both k=20% and k=40% poverty cutoff because the national average dominated by rural areas of the country.

The second conclusion of this thesis is related with proportion of Addis Ababa population below income poverty line and multidimensional poverty level. The 63% of the Addis Ababa population is Multidimensional poor at k=20% and 26% of the Addis Ababa population is Multidimensional poor at k=20%. Based on this the number of people who are multidimensional poor of Addis Ababa and deprived in each selected indicators are 63%× 3,100,425 = 1,953,267 at k=20%, and 26% × 3,100,425=806110 at k=40% poverty cutoff respectively, which means 1,953,267 and 806110 Addis Ababa population are multidimensional poor people at k=20% and k=40% poverty cutoff respectively. This figure showed that the multidimensional poverty level of Addis Ababa is more than income poverty level of Addis Ababa.

The third conclusion of this thesis is related with economic growth elasticity poverty reduction estimate whether able to indicate income and multidimensional poverty reduction of Addis Ababa equally or not. Ethiopia poverty estimation of income elasticity approach, one percent economic growth estimated to reduce the country income level of poverty by 1.94 % on national average .Based on this economic growth income elasticity estimation approach currently the national income poverty level is around 23.6% based on national average whereas based on Addis Ababa 2016 poverty assessment report is 18% but the multidimensional poverty level of Addis Ababa is 26% at 20% poverty cutoff. This result revealed that there are deviation between income and multidimensional poverty level. And also income elasticity estimation of poverty reduction approach with GDP growth rate relationship may not directly related and reflect with the multidimensional poverty level of the study area.Generally, the economic growth elasticity to income poverty reduction does not able respond equally with economic growth elasticity to multidimensional poverty of Addis Ababa.

5.2 Policy Recommendation

This study explored Ethiopia economic growth elasticity of income poverty estimate and multidimensional poverty reduction in Addis Ababa and analyzed multidimensional poverty in Addis Ababa focusing on selected dimensions of education, health, and living standards. It used nationally representative data from the Household Consumption and Expenditure, Welfare Monitoring surveys and Demographic Health Survey implemented in 2010/11-2014/15 using Alkire Foster Method.

Ethiopia seeks growth that is poverty reducing, and substantial poverty reduction requires substantial increase in growth. Any increase in the growth rate, especially for the fundamental goal of poverty reduction, has opportunity cost in foregone consumption. To this end, according to income elasticity poverty reduction estimates in Ethiopia One percent economic growth contributed to 1.94 percent poverty reduction in the 2010/11 household consumption expenditure survey (HICES).

The main finding and conclusion of this study are the incidence and adjusted multidimensional headcount ratio is higher than that of income level headcount ratio in Addis Ababa. The Addis Ababa multidimensional incidence (H) is lower than the national

multidimensional incidence (H) but higher than income headcount (23.3) at both k=20% and k=40% poverty cutoff because the national average dominated by rural areas of the country. The multidimensional poverty level of Addis Ababa is more than income poverty level of Addis Ababa.

The Ethiopia poverty estimation of income elasticity approach, one percent economic growth estimated to reduce the country income level of poverty by 1.94 % on national average .This economic growth income elasticity estimation approach does not able to respond to economic growth elasticity to multidimensional poverty level of the Addis Ababa.

Generally, the income and national average or rural area based poverty reduction approach can not address the multidimensional poverty level of the country and urban Addis Ababa as well. Economic Growth elasticity to income and multidimensional poverty reduction should not respond equally.

The findings and policy recommendation of the study are stated briefly below:

- Effective and efficient poverty-reduction policies, strategies and programs should cover not only income poverty but also multidimensional poverty and deprivation to improve the wellbeing of the society
- The study has assessed only six indicators safe water ,distance to water, living children four from health dimension, household education and asset and electricity from living standards dimension. However, the researcher believes that if more indicators including income can generate better image multidimensional poverty level of the town.

- The study analyzed the multidimensional poverty of the city more than income level headcount. Income-based poverty measurement can hardly reflect the comprehensiveness and complexity of poverty. Therefore, when measuring poverty, we must take into account various dimensions of multidimensional poverty and pay attention to the essential role of income poverty at the same time.

- The study in part found out that higher percent of people deprived in asset ownership and in distance to water (45 minutes) but lower percent of people deprived in electricity

and number of household living children and household head education from selected indicators by the study. Poverty reduction programs will held in Addis Ababa should be based on multidimensional deprivation thematic areas ,focus on deprived poor target areas and groups

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- The result also indicated that the multidimensional intensity of poverty or the average deprivation among the poor of the town is higher even though lower than the national average. Therefore the responsible body should pay attention to the multidimensional intensity or average deprivation among the poor.

- The study in addition found income based poverty reduction strategy results may not have the same result on multidimensional poverty reduction of the town. For better poverty reduction and estimation result the harmonization and implementation of the two methods is important.

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Annex A: FGD and Key Informant Checklists

Key informant interview questions.

1. What do you understand the relationship of economic growth and poverty?

2. How do you evaluate urban and rural poverty level of the country?

3. What are the critical variables in determining urban poverty?

4. What are the challenges and progress in the urban poverty reduction efforts?

5. Is income based or multidimensional poverty measurement more efficient poverty measurement instrument? Why?

6. Your suggestions on urban poverty measurement and poverty reduction strategies?

Guidelines for Focused Group Discussion.

1. To what extent do you understand poverty in general and urban poverty in particular?

2. Can the one-dimensional poverty measurement indicate clearly urban poverty level?

3. Does economic growth elasticity poverty reduction reflect urban multidimensional poverty level reduction?

4. How do you evaluate the economic growth and poverty reduction performance of the country?

5. Is there any change in the level and coverage of poverty in the Addis Ababa city through time? In what magnitude?

6. What do you understand and suggest on rural and urban poverty economic growth and poverty reduction?

7. Do you suggest urban poverty reduction strategy based on monetary poverty level data as an efficient tool?

Annex B: Addis Ababa number of Population under National Poverty Line

Table 11 : Addis Ababa number of Population under National Poverty Line

Sub-City	2011			2015		
	Number	Head Count Ratio	Below the poverty line	Number	Head Count Ratio	Below the poverty line
Kolfe Keraniyo	420,231	18.9	79423	498,047	18.1	90146
Yeka	429,846	27.8	119497	444,359	9.6	42658
Nefas Silk Lafto	311,191	21.9	68151	397,234	17.8	70708
Bole	309,012	14.4	44498	358,925	7.8	27996
Gulele	270,737	26.6	72016	288,335	14.9	42962
Addis Ketema	258,818	46.8	121127	252,343	46.9	118349
Kirkos	245,000	33.8	82810	217,143	14.8	32137
Arada	206,982	28.2	58369	231,966	34.5	80028
Akaki Kality	202,715	30.6	62031	206,782	9.5	19644
Lideta	195,967	53.8	105430	205,292	29.6	60766
Addis Ababa	2,850,499	28.1	813352	3,100,425	18.9	585980

Source: Addis Ababa Poverty Assessment Survey (2016) and Own computation

Annex C: Poverty by ecological zone

Table 12: Trend of Rural Urban Gini-Coefficients

Gini-coefficient Overtime	Rural	Urban	Total
1995/96	0.27	0.34	0.29
1999/00	0.26	0.38	0.28
2004/05	0.26	0.44	0.30
2010/11	0.27	0.37	0.30

HICE survey of 1995/96, 1999/00, 2004/05 and 2010/11

Annex D: Poverty Distribution among sub cities

Table 13: Level and Poverty Distribution among the ten sub cities (2015)

Sub-City Number	Number	Head Count Ratio	Below the poverty line	Above Poverty line
Kolfe Keraniyo	498,047	18.1	90146	407901
Yeka	444,359	9.6	42658	401701
Nefas Silk Lafto	397,234	17.8	70708	326526
Bole	358,925	7.8	27996	330929
Gulele	288,335	14.9	42962	245373
Addis Ketema	252,343	46.9	118349	133994
Kirkos	217,143	14.8	32137	185006
Arada	231,966	34.5	80028	151938
Akaki Kality	206,782	9.5	19644	187138
Lideta	205,292	29.6	60766	144526
Addis Ababa	3,100,425	18.9	585980	2,514,445

Source: Addis Ababa Poverty Assessment 2016 and Own Computation

Annex E: Incidence of poverty by highest grade completed

Table 14: Incidence of poverty by highest grade completed Household Head, 2015

Highest grade completed by the head of the household	% of absolute poverty
No education	30.9
Informal education	30.9
Grade 1-4 completed	24.2
Grade 5-8 completed	19.3
Grade 9-12 completed	15.7
Certificate training	11.1
University degree	6.3
Total	18.9

Source: Addis Ababa Poverty Assessment Survey 2016

Annex F: National Poverty Line by Adult

Table 15: Poverty Headcount for National Poverty Line by Region

Region	National Poverty Line per Adult			
	1996	2000	2005	2011
Tigray	56.0%	61.4%	48.5%	31.8%
Afar	33.1%	56.0%	36.6%	36.1%
Amhara	54.3%	41.8%	40.1%	30.5%
Oromia	34.0%	39.9%	37.0%	28.7%
Somali	30.9%	37.9%	41.9%	32.8%
Benishangul-Gumuz	46.8%	54.0%	44.5%	28.9%
SNNP	55.9%	50.9%	38.2%	29.6%
Gambela	34.2%	50.5%		32.0%
Harari	22.5%	25.8%	27.0%	11.1%
Addis Ababa	30.2%	36.1%	32.5%	28.1%
Dire Dawa	29.4%	33.1%	35.1%	28.3%

Source: 2014 Ethiopia Poverty Assessment World Bank