Addis Ababa University

Collage of Business and Economics

Department of Public Administration and Development Management

Assessing Progress in Ethiopia towards Eradication of Extreme Poverty and Hunger as Part of Goal One of the Millennium Development Goals

A Thesis Submitted to Department of Public Administration and Development Management of Addis Ababa University in Partial Fulfillment of the Requirements for the Master of Arts Degree in Public Management and Policy.

By:

Ashenafi Kitessa

June, 2012

Addis Ababa, Ethiopia.

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Abstract

In Ethiopia, just like many African countries, it is the high incidence of poverty and hunger that served as a push factor for the adoption and integration of the Millennium Development Goals (MDGs) in to the national development plans. The progress towards achievement of the MDGs and eradication of extreme poverty and hunger in Ethiopia has not been researched after 2005 as a result of the unavailability of data i.e. the 2010 HICES and WMS. In addition to this, the agglomerated impact of external challenges such as the global economic challenge, recurrent drought and low agricultural productivity on the achievement of the MDG goal one has not been researched. In line of these gaps, the following research objectives were set including; i. showing the achievements made so far in terms of meeting the MDG goal one targets ii. Identifying the challenges encountered, opportunities gained and prospects for achieving the goal by 2015. To achieve the objective of the study secondary data were acquired from Welfare Monitoring Surveys and Household Income, Consumption and Expenditure surveys published by the Central Statistics Agency. To complement the aforementioned data, the results of Ethiopian Demographic and Health Survey, variety of reports published by Ministry of Finance and Economic Development and, various agencies of the United Nations have been used. With the help of poverty headcount, gap and severity indices, the progress made so far in terms of reduction of poverty have been addressed. In addition to this, the issues of inequality and hunger have been discussed with the help of gini coefficient, Lorenz curve and anthropometric measures of nutrition. To date significant progresses have been observed in terms of halving the proportion of the poor and those who suffer from hunger. However, there appears to be a long way to go for the creation of decent employment opportunity for all. Despite the progresses made in terms of halving the proportion of the poor and those who suffer from hunger, the overwhelmingly high dependence of the government budget on external assistances and loans, the poor macro-economic management that resulted in soaring inflation and increasing trade deficit, the traditional and drought stricken nature of agriculture, climatic change and global economic challenges such as rise in food and oil prices, and the limited ability of the government to cope up with such shocks make the progresses made unsustainable and make many vulnerable to slip back again to poverty. Hence, the continuation of the current trend of strong economic growth and pro poor spending, focus on export oriented and import substituting industries and, the structural transformation of agriculture and the introduction of commercial farms are critical in terms of ensuring the continuity of the progresses made.

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Throughout this work, in all ups and downs, I had never been alone because of my beloved friends. They had been by my side with full devotion, in time of frustration and pleasure. With sincere gratitude I owe them a lot. Last, but not least, my simple words cannot express the deeds of my family who have been in charge of supporting me throughout my life. My heartfelt thanks go to my father, mother, and all my sisters and brothers.

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List of Acronyms

AFDP- African Development Bank

AUC- African Union Commission

CEDAW- Convention on all Forms of Discrimination

CSA- Central Statistics Agency

ECA- Economic Commission for Africa

EDHS- Ethiopian Demographic and Health Survey

ETB- Ethiopian Birr

FAO- Food and Agriculture Organization

FDRE: Federal Democratic Republic of Ethiopia

FSP- Food Security Program

GDP- Gross Domestic Product

GNI- Gross National Income

GTP- Growth and Transformation Plan

HDI- Human Development Index

HICES- Household Income, Consumption and Expenditure Survey

ILO- International Labour Office

Kcal- kilocalorie

KM- Kilometer

MDG- Millennium Development Goals

MoFED- Ministry of Finance and Economic Development

MW- Megawatt

NCHS- National Center for Health Statistics

OECD- Organization for Economic Cooperation and Development

PASDEP- Plan for Accelerated and Sustained Development for Eradicating Poverty

PBS- Protection of Basic Services

PPP- Purchasing Power Parity

SDPRP- Sustainable Development for Poverty Reduction Program

SNNP- Southern Nations Nationalities and People's

SSA- Sub Saharan Africa

UN- United Nations

UNCD- United Nations Conference on Environment and Development

UNDP- United Nations Development Programme

UNICEF- United Nations Children's Fund

UNMDGS- United Nations Millennium Development Goals Statistics

US- United States

WB- World Bank

WHO- World Health Organization

WMS- Welfare Monitoring Survey

Chapter One
2. Introduction

2.1.Background

It is in the deprivation of the lives that people lead that poverty manifest itself. Poverty can involve not only the lack of the necessities of material well-being, but also the denial of opportunities for living a tolerable life. Life can be prematurely shortened. It can be made difficult, painful or hazardous. It can be deprived of knowledge and communication. And it can be robbed of dignity, confidence and self-respect-as well as the respect of other. All are aspects of poverty that limit and blight the lives of many millions in the world today (UNDP, 1997).

The importance of achieving the Millennium Development Goals (MDGs) in Africa is underscored by the high incidence of poverty, limited access to health services, an unacceptably high prevalence of HIV/AIDS and other infectious diseases, low levels of education, marked gender disparity in access to basic social and productive services, high unemployment rates and an unsustainable debt burden in several countries. It was as a result of a mutual desire to address these dire conditions that over 180 World leaders endorsed the Millennium Declaration in September 2000 (ECA, 2006).

In the report "In Larger Freedom: Towards Development, Security and Human Rights for All" the Secretary General of the United Nations called on countries with extreme poverty to adopt "national development strategies bold enough to meet the Millennium Development Goals". In 2005, this view was endorsed by World leaders assembled at the UN when they called on countries with extreme poverty to adopt and begin to implement by 2006, national development strategies bold enough to meet the targets of the Millennium Development Goal (MDGs). Subsequently, in March 2006, the *African Plenary on National Poverty Reduction Strategies and the Implementation of MDGs* (the African PRS Plenary) jointly convened by the United Nations Economic Commission for Africa (ECA), the Africa Union Commission (AUC) and the United Nations Development Programme (UNDP), also affirmed that PRSs are indispensable instruments for achieving the MDG targets (Ibid).

MDGs have been embedded in Ethiopia's national development strategies since 2002, as Poverty reduction strategies (PRS) preparations moved forward. The formulation of the Sustainable Development for Poverty Reduction Program (hereafter the SDPRP) (2002/2003-2004/2005)

marked the beginning of the effort to align national development strategies with the MDGs. The government began a detailed assessment of what is required to achieve the MDGs in July 2004 and by the 2005 the government came up with the consequent Plan for Accelerated and Sustained Development for Eradicating Poverty (hereafter the PASDEP) (2005/2006-2009/2010). The Growth and Transformation Plan (hereafter the GTP) (2010/11-2014/15) has been formulated, on the basis of experiences gained from the previous two PRSs, and is currently being implemented aiming at the achievement of the MDG targets by 2015, and the long term national vision of making Ethiopia among middle income countries by 2020-2023.

2.2.Statement of the Problem

According to Ministry of Finance and Economic Development (2002), Ethiopia with a population of about 67 million in July 2002 is the third most populous country in Africa. The country has long-standing history, diverse cultural heritage, and reasonably good resource potential for development. Yet, the majority of the population lives in absolute poverty. In this context, the 1980s was marked by a state of crisis. Thus, by the turn of the 1990s economic policies and management under the command economic system, protracted civil war and recurring drought left the economy in deep crisis which manifested itself, among others, in: weak economy where growth plunged in most of the years and accompanied by loss of productive capacity, competitiveness, and increased food insecurity; severe macroeconomic imbalance and instability, and social crisis involving millions of displaced persons, refugees, demobilized soldiers, homelessness and unemployed people.

Achieving broad based, accelerated and sustained economic growth so as to eradicate poverty has been and is a key objective of the government of Ethiopia. The government has designed and is implementing strategies, policies and plans to guide and manage the overall development of the country accordingly.

The development policies and strategies pursued during the three years Sustainable Development and Poverty Reduction Program, the country's first development plan, together with its expressed visions and achievements, were the foundation for the design of the PASDEP (WB, 2006). The PASDEP was implemented during the five year period 2005/06-2009/10. It was prepared based on the MDG targets and the government's vision for Ethiopia's development.

The consequent GTP is extension of Ethiopia's effort to align MDGs with PRS to eradicate poverty. Its main objectives are ensuring accelerated, sustained and broad based economic development as well as preparing the ground for the full achievement of Ethiopia's MDG targets by 2015, and also further achieve the country's aim of becoming a middle income nation by 2020-2023.

In 2000, according to the Poverty Assessment for Ethiopia, 42.2 percent of the population lived below the national poverty line, while 22.5 percent of households were extremely poor and lived below the food poverty line of 1650 kcals per person per day (WB, 2006). It is the prevalence of these dire conditions and the consequent need for improvements that led the country adopt the MDGs and integrate in to the national development strategies.

Although eradication of extreme poverty and hunger and also the achievement of the MDGs are affected by multifarious factors, many researchers have addressed the issue of poverty by identifying a single factor as a main consideration. For instance, Rosegrant, *et al.* (2006), emphasized on the role of agriculture in achieving the MDGs and concluded that policy actions and increased investment in the critical areas of sustainable agricultural productivity and, food and nutritional security will be essential for responding effectively and responsibly to achieve the MDGs in Ethiopia. On the other hand, Kifle (2010) and Accorsi, *et al.* (2009) focused on the role of road infrastructure and health systems in eradicating poverty, respectively, and concluded the poor benefits from road induced income growth and the MDGs cannot be achieved without strengthening the health system. However, this study takes a more generic consideration to identify the challenges for the eradication of extreme poverty and hunger by using the MDGs goal one progress tracing parameters as a means to monitor progress.

In addition to this, many researches and papers show the challenges faced and progresses made in terms of achieving the MDGs and eradication of extreme poverty up to the year 2005, mainly due to the unavailability of data. However, this research by incorporating late publications from various sources, tries to give a more recent picture of the progress made and challenges encountered in terms of eradication extreme poverty and hunger.

2.2.1. Research Questions

- What are the main achievements gained to date in terms of halving the proportion of people living below the poverty line and those who suffer from hunger?
- What achievements and challenges have been faced in creating decent employment opportunities for Ethiopian women and youth?
- What challenges, opportunities, and prospects are there to eradicate extreme poverty and hunger as per the MDG targets by 2015?
- What are the areas where further interventions or improvements are required by stakeholders to enable the country fully realize the goal of eradicating extreme poverty and hunger by 2015, if any?

2.3.Research Objectives

2.3.1. General Objective

The general objective of the study is to show the progress Ethiopia has made in eradicating extreme poverty and hunger as per the nine indicators set by goal one of the MDGs.

2.3.2. Specific Objectives

On the basis of the above objective, this research paper has the following specific objectives.

- Show achievements made so far in terms of meeting the MDG targets.
- Identify the challenges encountered, opportunities gained and prospects for achieving the goal by 2015.
- Show areas where further interventions are required by stakeholders to better achieve the goal.

2.4.Scope and Limitation of the Study

Poverty is a multifaceted phenomenon. It could simply mean that opportunities and choices most basic to human development are denied. Viewed in this way, its eradication does not lend itself to simple solutions. For instance, while higher average incomes will certainly help reduce poverty, these may need to be accompanied by measures to empower the poor, or insure them against risks, or to address specific weaknesses such as inadequate availability of schools or a corrupt health service. So studying every aspect of poverty in this research paper will be impractical, hence, the need to delimit the boundary of the research arises.

According to the official listing of the MDGs indicators (2008), the MDGs are contained in the eight goals, 21 targets and 60 indicators to monitor progress. Considering all the eight goals along with their targets and indicators would result in a more comprehensive and detailed result of the context of poverty in the country but due to constraints in time, finance and expertise the study is limited to discussing about Eradication of Extreme Poverty and Hunger (i.e. Goal 1) along with its three targets and, nine indicators as set by the united nations.

2.5.Research Methods, Data Sources and, Method of Analysis

2.5.1. The Research Methods

The primary objective of this research is to assess the progress, challenges, opportunities and, achievements of extreme poverty and hunger eradication in Ethiopia in the context of goal one of the millennium development declarations. In order to undertake these activities, explain and meet the research objective, descriptive research method has been employed. Because, descriptive researches inquire questions such as “what”, “how” and, “why” which are assumed to be more appropriate to help have detailed insights and understandings of the topic under study.

Furthermore, descriptive research is appropriate to undertake a research in a situation where there is shortage of money available to undertake rigorous study of this kind. Hence, its cost is reasonable considering the amount of information needed to be gathered. The researcher can have the room to control the amount of expenses by choosing the most relevant data from among the range of data sources available. And it could also let one to collect large amount of data with relative ease from a variety of sources. This method is selected as it has multifaceted advantage in easing of investigations of challenges, opportunities and achievements in realistic settings in order to further scrutinize and predict the issue.

In addition, qualitative research approach has been used in order to help assess and understand various issues contributing to the challenges, opportunities and achievements of the topic under consideration.

2.5.2. Data Sources

For undertaking this research, secondary data sources were the sole means of acquiring the required data. The research extensively relied on the quantitative surveys conducted by the

Central Statistics Agency in 1995/96, 1999/2000, 2004/05 and 2010/11 Household Income and Consumption Expenditure survey (HICES) and, the 1995/96, 1999/2000 and 2004/05 Welfare Monitoring System.

In Ethiopia, the two main national sources of quantitative information to update developments on poverty and welfare are the Household Income Consumption Expenditure survey and, welfare monitoring survey. The two surveys which have been conducted in tandem since 1995/96 are interrelated: the former provides update on the income dimension of poverty and the later on the non-income dimension of poverty.

The HICE surveys have been conducted mainly to provide data on the levels, distribution and pattern of household income and consumption expenditure. It provides basic data for the analysis of changes in material deprivation (poverty) of household over time for various socio economic groups and geographical areas, etc. The WMS has been conducted mainly for the purpose of assessing non-income dimension of poverty: access to education, health, nutrition, access to infrastructure, clean water and, to the extent of vulnerability of households to various shocks and coping mechanisms.

The number of sampled households increased successively since the first ever household survey of national scope conducted in 1995/96. It increased from 11,000 households in 1995/96 to 17,000 in 1999/2000, 21,000 in 2004/05 and, 28,032 in 2010/11. However, the 2004/05 HICE sample survey covered all rural and urban areas of the country, it hasn't included all zones of Gambella region. The number of households for the WMS has also increased from 12,000 in 1995/96 to 26,000 in 2004/05.

Since the 2010/11 HICES and WMS are not available yet, with the aim of making the research full, additional complementary quantitative data has been used form the Interim Report on the 2010/11 Poverty Analysis, the 2010 Urban Employment Unemployment Survey, the 2011 Ethiopian Demographic and Health Survey (EDHS), the United Nations Millennium Development Goals Statistics (UNMDGS) website and, the on-line tool for poverty measurement developed by the development research group of the World Bank.

2.5.3. Data Description and Analysis

The research describes the incidence and severity of poverty and the level and distribution of consumption at the national and regional levels as well as cross-tabulating the correlates of these. The incidence, depth, and severity of poverty, expressed by the headcount, gap and severity index, respectively, are presented and discussed in tabulation and graphical formats.

The research paper has also described the distribution of consumption and the share that accrues to the poorest twenty percent of the population in tabulation. The inequality in consumption expenditure has also been presented and discussed with the help of Gini coefficient and Lorenz curve. The nutritional status among different age groups and, employment statuses and their relation to poverty have also been discussed with the help of graphs and tables.

2.6. Significance of the Study

The research adds contribution for the progress to eradicate extreme poverty and hunger in several aspects. The first and most important outcome of this research work is identification of the problems and challenges that are encountered in the realization of goal one of the millennium development goals i.e. extreme poverty and hunger eradication. Apart from problems identification, the research shows readers the progress achieved in terms of halving the proportion of the poor. Therefore, this paper is significantly important to all people who have an interest to know the progress and challenges in the areas of poverty and hunger eradication and to researchers and academicians to get the gaps or problems in extreme poverty and hunger eradication.

2.7.Organization of the Study

The thesis paper consists of four chapters. The first chapter is about introduction in which discussion is made on background of the study, statement of the problem, objectives of the study, research methods used, scope and limitations, and significance of the study. In the second chapter, what poverty and the MDGs are, along with their measures are discussed. On the third chapter, data description, discussion and analysis are presented. The last chapter, chapter four, provides conclusion and recommendation on the basis of the analysis made in the preceding chapter.

Chapter Two

3. Literature Review

3.1.The Concepts of Poverty and Well-Being

UNDP (1997) defines poverty in the human development perspective. Since its launch in 1990 the Human Development Report has defined human developments as "the process of enlarging people's choices". According to the report, the most critical ones are to lead a long and healthy life, to be educated and to enjoy a decent standard of living. Additional choices includes political freedom, other guaranteed human rights and various ingredients of self-respect- including what Adam Smith called the ability to mix without being "ashamed to appear in public". These are among the essential choices, the absence of which can block many other opportunities.

If human development is about enlarging choices, UNDP (1997), poverty means that opportunities and choices most basic to human development are denied- to lead a long, healthy, creative life and enjoy a decent standard of living, freedom, dignity, self-respect and the respect of others.

According to the (World Bank, 2000), "poverty is pronounced deprivation in well-being". This of course begs the questions of what it meant by well-being and what is the reference point against which to measure deprivation.

Haughton and Khandker (2009) suggest two approaches to the study of well-being (hence poverty). One approach is to think of well-being as the command over commodities in general, so people are better off if they have a greater command over resources. The main focus is on whether households or individuals have enough resources to meet their needs. Typically poverty is measured by comparing individuals' income or consumption with some defined threshold below which they are considered to be poor. This is the most conventional view- poverty is seen largely in monetary terms- and is the starting point for most analyses of poverty.

A second approach to well- being (and hence poverty) is to ask whether people are able to obtain a specific type of consumption good: Do they have enough food? Or shelter? Or health care? Or education? In this view the analyst goes beyond more traditional measures of poverty: Nutritional poverty might be measured by examining whether children are stunted or wasted; and

educational poverty might be measured by asking whether people are literate or how much formal schooling they have received.

Sen (1987) as quoted in Haughton and Khandker (2009) argues that well-being comes from capability to function in society. Thus, poverty arises when people lack key capabilities, and so has inadequate income or education, or poor health, or insecurity, or low self-confidence, or sense of powerlessness, or the absence of such as freedom of speech. Viewed in this way, poverty is a multidimensional phenomenon and less amenable to simple solutions. For instance, while higher average incomes will certainly help reduce poverty, these may need to be accompanied by measures to empower the poor, or insure them against risks, or to address specific weaknesses such as inadequate availability of schools or health service.

Concerns with identifying people affected by poverty and the desire to measure it have at times obscured the fact that poverty is too complex to be reduced to a single dimension of human life. It has become common for countries to establish an income based poverty lines. Although income focuses on important dimension of poverty, it gives only a partial picture of the many ways human lives can be adversely affected.

Poverty is related to, but distinct from, inequality and vulnerability. Inequality focuses on the distribution of attributes, such as income or consumption, across the whole population. In the context of poverty analysis, inequality requires examination if one believes that the welfare of individuals depends on their economic position relative to others in society. Whereas, vulnerability is defined as the risk of falling into poverty in the future, even if the person is not necessarily poor now; it is often associated with the effects of "shocks" such as a drought, a drop in farm prices, or a financial crisis. Vulnerability is a key dimension of well-being since it affects individuals' behavior in terms of investment, production patterns, and coping strategies, and in terms of the perceptions of their own situations (Haughton & Khandker, 2009).

Poverty of lives and opportunities— or human poverty— is multidimensional in character and diverse in content. Also, people perceive deprivation in different ways— and each person and community defines the deprivation and disadvantage that affects their lives in terms of their living conditions. A poor person residing in Ethiopia and another poor living in the United States of America will define poverty in a different manner.

The World Bank interviewed more than twenty thousand poor people to define poverty in their own terms. The results of the interview were published in a three volume set on the World Bank website. Smith 2005, have listed some of the definitions given by the poor and some of them are selected and listed here below to show how diverse poverty is both in character and content.

Voices from Ethiopia— How It Feels Like To Be Among the Ultra Poor

- ✓ We are left tied like a straw
- ✓ Living by scratching like a chicken
- ✓ What is life when there is no friend or food?
- ✓ Life has made us ill
- ✓ We are deprived and pale
- ✓ We are above the dead and below the living
- ✓ Hunger is a hyena
- ✓ A life that cannot go beyond food
- ✓ We simply watch those who eat
- ✓ Difficulties have made us crazy
- ✓ We sold everything we had and have become shelter seekers
- ✓ It is like sitting and dying alive
- ✓ A life that is like being flogged
- ✓ A life that makes you look older than your age
- ✓ Just a sip and no more drop is left
- ✓ If one is full, the other will not be full
- ✓ We have become empty like a hive

"Lack of work worries me. My children were hungry and I told them the rice is cooking, until they fell asleep from hunger."— An older man from Bedsa, Egypt.

Half the population in a region of Malawi "misses meals for many days, especially in the hungry months of January and February." – Women villagers in Malawi.

"Our [mud] home is in a very bad condition. It leaks and looks like it is falling but we cannot afford to maintain it. This has made our lives more miserable."— Malawi

"How can you face your children day after day hungry?"— A mother in Tanzania

"I don't even think about saving- my earnings are not even enough to eat sufficiently." —Indonesia

Source: Smith, 2005: P. 36-37.

On the other hand, (Schiller, 2008), in his book called the Economics of Poverty and Discrimination tries to compare poverty in USA and global poverty in the following manner:

> *"However we might define poverty in the United States, most of the world's inhabitants would still envy America's "poor" population. Over half the world's population has an income below America's official poverty standard. They can't even begin to fathom how rich Americans are—or why "poverty" is still a front-page issue in the United States. All they see (usually via television in a retail store) is that Americans have far more goods and services than global poor households can ever imagine.* ***Even the poorest Americans seems to have roofs over their heads, plenty to eat, indoor toilets, safe water, a car, and access to schools, hospitals, and entertainment.*** *How could anyone with so much, they wonder, consider themselves "poor"?"*(Schiller, 2008: P.72)

As can be seen from the above statements how poverty is considered varies very widely based on the context of each community. Generally (Smith, 2005) defines Poverty as hunger, pervasive poor health and early death, loss of childhood, denial of the right to a basic education, powerlessness, vulnerability, and is also about other conditions that are less quantifiable but no less real and oppressive. It is awareness and fear of becoming destitute as a result of a shock or catastrophic event, such as illness, or death of a draft animal, or theft of your land.

3.2.Poverty lines: what are they? And why are they needed?

A poverty line typically specifies the income (or level of spending) required to purchase a bundle of essential goods: typically food, clothing, shelter, water, electricity, schooling, and reliable healthcare (Kamanou, et al., 2005). This specific income or expenditure level serves as a threshold where people who earn or spend below it are considered poor and those who earn or spend beyond the level are considered non poor.

Here it would be better for one to be able to differentiate between absolute and relative measures of poverty. Absolute poverty refers to a set standard which is the same in all countries and which does not change over time. An income-related example would be living on less than $X per day. Whereas, Relative poverty refers to a standard which is defined in terms of the society in which an individual lives and which therefore differs between countries and over time. An income-related example would be living on less than X% of average income (The Poverty site, 2012).

The concept of absolute poverty is that there are minimum standards below which no one anywhere in the world should ever fall. The concept of relative poverty is that, in richer

countries, there are higher minimum standards below which no one should fall, and that these standards should rise if and as the country becomes richer.

A poverty line indicates deprivation in an absolute sense, i.e., the value of a set of level of resources deemed necessary to maintain a minimal standard of well being (Kamanou, et al., 2005). Seen from this perspective, poverty is said to be eliminated when all households command resources equal or above the poverty line. The $1/day per capita poverty is one example of an absolute poverty line.

Identifying the poor as those with income (or expenditures) below a given line brings clarity and focus to policy making and analysis. Having a poverty line allows experts to count the poor, target resources, and monitor progress against a clear benchmark. Communicating the extent of poverty becomes easier, and explaining the notion of deprivation simpler.

Despite the breadth of concerns, social scientists still find it useful to focus largely on poverty as a lack of money -- measured either as low income or as inadequate expenditures. One reason for focusing on money is practical: inadequate income is clear, measurable, and of immediate concern for individuals. Another reason is that low incomes tend to correlate strongly with other concerns that are important but harder to measure. Those in the worst health and with the lowest social status, for example, tend also to come from the bottom of the income distribution. Lack of money serves as a rough but quantifiable proxy for a host of deprivations (Kamanou, et al., 2005).

3.3.Desirable Poverty Measures

According to Kamanou, et al. 2005, poverty measures are used first and foremost to monitor social and economic conditions and to provide benchmark of progress or failure. Here, poverty measures are indicators by which policy results are judged and by which the impact of events (e.g., the introduction of a government transfer program) can be weighted. Measures used for monitoring and targeting need to be trusted and require rigorous underpinning. The measures will function well as long as everyone agrees that when poverty measures rise, conditions have indeed worsened (and conversely, when poverty measures fall, that progress has been made).

A second important use for poverty measures is descriptive. Poverty statistics play critical roles in summarizing complex social and economic conditions that inform conversations around economic and social priorities. For this purpose, effective measures need not completely capture all (or even most) morally relevant aspects of poverty. But the limits of measures need to be understood, and transparency and ease of interpretation are critical here.

Economists have tried to identify a set of desirable characteristics of poverty measures (often stated mathematically as axioms) around which consensus can be built. While not succeeding at singling out a particular, universally-acclaimed poverty measure, the axiomatic approach pushes discussions forward in useful ways, and the central ideas are worth reviewing. According to (Kamanou, et al., 2005), building blocks include concepts such as "scale invariance". This is the idea that poverty measures should be unchanged if, for example, a population doubles in size while everything else is maintained in the same proportions.

A second building block focuses on the well-being of those below the poverty line —so that changes among better-off people do not affect measured poverty. In other words, the measure should not vary if the income of the non-poor varies i.e. the "*focus"* axiom (Haughton & Khandker, 2009). This axiom rules out measures based on relative notions of poverty (i.e., where poverty is not measured by absolute deprivations relative to a fixed poverty line but instead the poor are identified relative to a shifting statistic like the median income of the whole population). Our focus here is on "absolute poverty" as measured by a fixed poverty line.

A third attribute, the "*monotonicity*" axiom, states that, holding all else constant, when a poor person's income falls, poverty measures must rise (or at least should not fall). Here one can say that any income gain for the poor should reduce poverty (Kamanou, et al., 2005).

The "*transfer*" axiom (sometimes referred to as the Pigou-Dalton principle, after those who employed it first in their analysis) has more analytical bite. It states that, holding all else constant, taking more money from a poor person and giving it to a less poor person must increase the poverty measure. Conversely, poverty falls when the very poor gain through a transfer from those less poor (Ibid).

"Transfer sensitivity," a related notion, goes further. It is best seen by example. Consider a population where the poverty line is set at $1,000. Next, imagine that $10 is taken from someone

earning $600 and given to a neighbor earning $500. Any poverty measure that satisfies the transfer axiom will fall. Measured poverty should also fall (for such indices) when $10 is taken from someone earning $300 and given to someone earning $200. The transfer-sensitivity axiom says that the reduction in the second case (in which a very poor person is made better off relative to her neighbor) should be greater than the reduction in the first case (in which the recipient is less poor) (Ibid).

An additional desirable characteristic is the ability to decompose poverty measures by sub-population. Sub-populations may include, for example, residents of different regions. The critical feature for decomposition is that the sub-groups are distinct from each other (so that there is no overlap in membership) and that together they encompass the entire population (Kamanou, et al., 2005).

3.4.Measures of Poverty and Inequality

Given information on a welfare measure such as per capita consumption, and a poverty line, the next issue is deciding on an appropriate summary measure of aggregate poverty.

3.4.1. Headcount Index

According to (Haughton & Khandker, 2009), the most widely used measure is the headcount index, which simply measures the proportion of the population that is counted as poor, often denoted by P_0. Formally,

$$P_0 = \frac{N_p}{N}$$

Where, N_p is the number of poor and N is the total population (or sample). If 60 people are poor in a survey that samples 300 people, then P_0 = 60/300 = 0.2 = 20 percent. For reasons that will be clearer below, it is often helpful to rewrite as

$$P_0 = \frac{1}{N}\sum_{i=1}^{N} I(y_i < z)$$

Here, $I(.)$ is an indicator function that takes on a value of 1 if the bracketed expression is true, and 0 otherwise. So if expenditure (y_i) is less than the poverty line (z), then $I(.)$ equals 1 and the household would be counted as poor.

The greatest virtues of the headcount index are that is simple to construct and easy to understand. These are important qualities. However, the measure has at least three weaknesses (Haughton & Khandker, 2009):

First, the headcount index does not take the intensity of poverty in to account. It does not show to what extent the poor is poor. It just shows the proportion of those considered poor to the total population.

Second, the headcount index does not indicate how poor are the poor, and hence does not change if people below the poverty line become poorer. In other words, the headcount registers no change when a very poor person becomes less poor. Nor does the headcount change when a poor person becomes even poorer.

Third, the poverty estimates should be calculated for individuals, not households. If 20 percent of the households are poor, it may be that 25 percent of the population is poor (if poor households are large) or 15 percent is poor (if poor households are small); the only relevant figures for policy analysis are those for individuals.

Another flaw, (Kamanou, et al., 2005), emanates from the failure of the transfer axiom, combined with the focus on whether people are above or below the poverty line. If policymakers see their task as reducing poverty as measured by the headcount, their work will be made easier by focusing on improving the lot of individuals just below the poverty line. A little improvement at this level can raise the incomes of the "barely poor" above the poverty line and hence can reduce the poverty headcount fairly rapidly. Directing resources to very poor people, on the other hand, may be socially beneficial, but far larger income gains are required to take them over the poverty line and thus to make a dent in the poverty headcount. So if efforts are allocated specifically to reduce the headcount, priority will likely go to helping the least poor over helping the poorest.

3.4.2. Poverty Gap Index

A moderately popular measure of poverty is the poverty gap index, which adds up the extent to which individuals on average fall below the poverty line, and expresses it as a percentage of the poverty line. More specifically, define the poverty gap (*Gi*) as the poverty line (*z*) less actual income (y_i) for poor individuals; the gap is considered to be zero for everyone else. Using the index function, we have

$$G_i = (z - y_i) \times I(y_i < z)$$

Then the poverty gap index (P_1) may be written as

$$P_1 = \frac{1}{N}\sum_{i=1}^{N}\frac{G_i}{z}$$

The poverty gap is intrinsically meaningful, taking us from counting people to counting shortfalls of income or consumption. It answers the question: how much would have to be spent to eliminate poverty through costless (and perfectly) targeted transfers. Its underlying assumptions are clearly unrealistic: in practice, transfers will never be administratively costless, nor will they ever be perfectly targeted. However, this hypothetical question still provides a helpful way to quickly gauge the scale of deprivation (Kamanou, et al., 2005).

However the poverty gap index violates Dalton's transfer principle (Haughton & Khandker, 2009). To see this, consider the following example:

Poverty Gap Poverty Rates in A and B, Assuming Poverty Line of 125						
Expenditure for each individual in country					Poverty gap rate (P_1)	Headcount index (P_0)
Expenditure in country A	99	101	150	150	0.10	50%
Expenditure in Country B	79	121	150	150	0.10	50%

For both of these countries, the poverty gap rate is 0.10, but most people would argue that country B has more serious poverty because it has an extremely poor member. One could think of the distribution in B as being generated from that in A by transferring 20 from the poorest person to the next poorest person – hardly an improvement in most people's eyes, yet one has no effect on the poverty gap rate.

3.4.3. Squared Poverty Gap (Poverty Severity) Index

To construct a measure of poverty that takes in to account inequality among the poor, some researchers use the squared poverty gap index. This is simply a weighted sum of poverty gaps (as a proportion of the poverty line), where the weights are the proportionate poverty gaps themselves; a poverty gap of, say, 10 percent of the poverty line is given a weight of 10 percent while one of 50 percent is given a weight of 50 percent; this is in contrast with the poverty gap index, where the gaps are weighted equally. Hence, by squaring the poverty gap index, the measure implicitly puts more weight on observations that fell well below the poverty line. Formally,

$$P_2 = \frac{1}{N}\sum_{i=1}^{N}\left(\frac{G_i}{z}\right)^2$$

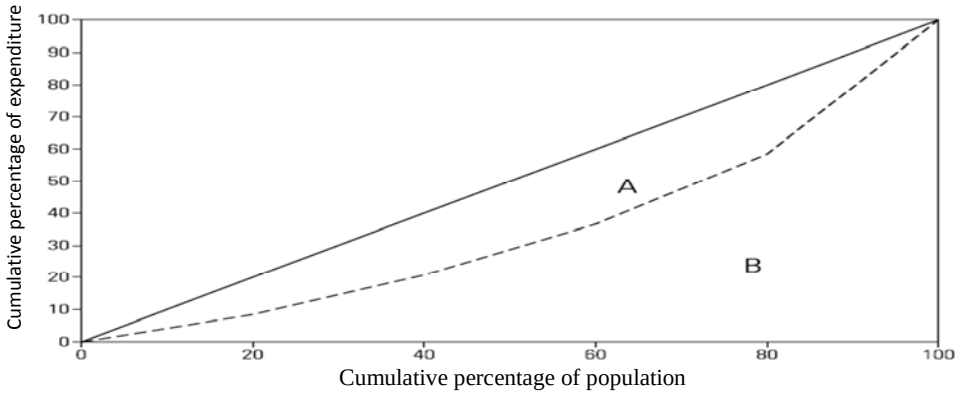
Allocating anti-poverty resources to minimize the poverty severity index would thus tilt efforts toward the poorest—which is a feature that many analysts find appealing. This index also satisfies the transfer—sensitivity axiom described above, and it is decomposable into the population-weighted sum of the poverty indices of regions or groups (Kamanou, et al., 2005).

3.4.4. The Lorenz Curve

A popular method for illustrating the size of distribution of income is the Lorenz curve. The Lorenz curve graphically illustrates the relationship between population shares and income shares.

Suppose that the population is arrayed in order of relative income. Starting with the lowest incomes, the Lorenz curve depicts the cumulative share of total income received by cumulative percentages of the population. Were incomes equally distributed, then 20 percent of the population would receive exactly 20 percent of all incomes.

Figure 2.1: Lorenz Curve



Source: Haughton and Khandker, 2009

The Lorenz curve not only provides a visual summary of the size distribution of income, but also provides a convenient mechanism for illustrating changes in that distribution. The closer the Lorenz curve is to the diagonal, the more equal is the distribution. Hence, by comparing Lorenz curves for different years, one can see whether inequality is increasing or decreasing.

A single statistic is often used to summarize the information arrayed along the Lorenz curve. Developed in 1912 by an Italian mathematician, the Gini coefficient measures how far the Lorenz curve departs from the diagonal of equality. It is measured as the area between the diagonal and the Lorenz curve, divided by the area of the triangle formed by the diagonal. This Gini ratio gets smaller as the Lorenz moves closer to the diagonal and attains a value of zero when absolute equality is achieved. Accordingly, the Gini coefficient varies between 0 (perfect equality) and 1 (complete inequality, wherein one household gets all the income). The Gini coefficient provides as remarkably simple mechanism for tracking and measuring changes in inequality (Schiller, 2008).

$$Gini = \frac{1}{2n^2\overline{y}}\sum_{i=1}^{n}\sum_{j=1}^{n}(y_i - y_j)$$

Where, y equals the income of the i^{th} and the j^{th} individuals and n is the number of individuals.

3.5.What are the Millennium Development Goals and why are they needed?

Endorsed by over 180 member States at the United Nations General Assembly in September 2000, the MDGs are recognition that 60 years after the end of World War II, the world remains

far from the ideals of peace and prosperity inspired by the end of that global conflict. For Africa, the launching of the goals through a network of partnerships guided by the Millennium Declaration has served as a catalyst to spur long dormant programmes that, together, will bring the continent closer to its development aims (Economic Commission for Africa, 2005).

Contained in the 8 goals, 21 targets and 60 indicators the MDGs, (see annex 1), are a number of previous declarations, as well as regional, national and international initiatives: the 1995 Copenhagen UN World Summit for Social Development, the 1995 Beijing Fourth UN Conference on Women, the 1994 Cairo UN International Conference on Population and Development, the 1979 Convention on All Forms of Discrimination Against Women (CEDAW), and the 1992 Rio UN Conference on Environment and Development (UNCED), among others.

The MDG goals and targets are not plans to be implemented by themselves, rather they are implemented by incorporating them in to Poverty Reduction Strategy Papers (PRSP) of each country. The PRSPs are prepared by country authorities, with broad participation of civil societies and technical assistance from donors and multilateral agencies. The PRSPs, in effect, integrates and translates the MDG principles in to plans for action that are indicative of national development priorities relevant to the realization of sustainable poverty reduction (Kingsbury, Remenyi, McKay, & Hunt, 2004).

The importance of implementing and achieving the MDGs in Africa is underscored by the high incidence of poverty, limited access to health services, an unacceptably high prevalence of HIV/AIDS and other infectious diseases, low levels of education, marked gender disparities in access to basic social and productive services, high unemployment rates and an unsustainable debt burden in several countries. It was as a result of a mutual desire to address these dire conditions that over 180 leaders endorsed the Millennium Declaration in September 2000.

MDGs have been embedded in Ethiopia's national strategy since 2002, as PRSP preparations moved forward. The government began a detailed assessment of what is required to achieve the MDGs in July 2004. Ethiopia became one of the seven pilot countries working closely with the Millennium Project and UN Country Teams to conduct this analysis. As a result, Ethiopia has formulated an MDG-based PRS, called the Plan for Accelerated and Sustainable Development to End Poverty (2005/06-2009/10) and the Growth and Transformation Plan (2010/11-2014/15).

The PASDEP takes into account the synergy among MDGs and its economy-wide implications. As a result, the PASDEP is rich in mapping out alternative scenarios in response to expected changes in growth and sources of financing (Economic Commission for Africa, 2005). The GTP is also a way forward to varying out the important strategic directions pursued in PASDEP. The effort to examine the macroeconomic implications of meeting the MDGs has provided the PASDEP an opportunity to identify key growth constraints and potentials for Ethiopia.

To date Ethiopia has made remarkable progress and is on track to achieve goal 1,2,4,6 &8, given the current effort continues in the coming five years (see annex 1). It is also stated that if additional efforts are exerted the country will be likely to be on track to achieve goal 3, 5 and 7 by 2015 (MoFED, 2010).

Chapter Three

3. Data Description, Analysis and Discussion

3.1. Data Description

3.1.1. Putting recent socioeconomic developments into context

Even though, the 2010/11 Welfare Monitoring Survey and Household Income Consumption Expenditure Survey results has not been yet available, various other sources have been used to fill in the information gap that may arise as a result of the delayed publication of the surveys. Before directly discussing the quantitative data acquired, it is important to show the prevailing socioeconomic conditions in the country, as poverty is a result of the dynamics of many social, political, and economic trajectories.

3.1.1.1.Macroeconomic indications

Ethiopia has both medium and long term visions. Its medium term vision is to achieve the Millennium Development Goals (MDGs). This should be achieved at the end of the implementation of the five year plan, named as the Growth and Transformation Plan (GTP). The planning period of the GTP spans the period 2010/11-2014/15 and, it is the continuum of Sustainable Development and Poverty Reduction Program (SDPRP) and the Plan for Accelerated and Sustained Development to End Poverty (PASDEP) which were executed during the years of 2002/03-2004/05 and 2005/06-2009/10, respectively.

Table 3.1: GDP growth rate by sector (2003/04-2010/11)

Sector indicator	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	Average
Real GDP growth rates									
All Sectors	11.7	12.6	11.5	11.8	11.2	10.0	10.6	11.4	**11.4**
Agriculture	16.9	13.5	10.9	9.4	7.5	6.4	7.6	9	**10.2**
Industry	11.6	9.4	10.2	9.5	10.0	9.9	10.8	15	**10.8**
Service	6.3	12.8	13.3	15.3	16.0	14.0	13.2	12.5	**12.9**
Sectoral shares (in %)									
Agriculture	47.0	47.4	47.1	46.1	44.6	43.2	42.0	41.1	**44.8**
Industry	14.0	13.6	13.4	13.2	13.0	13.0	13.0	13.4	**13.3**
Service	39.7	39.7	40.4	41.7	43.5	45.1	46.1	46.6	**42.9**

Source: MoFED, Macroeconomic Development in Ethiopia: Annual Report 2010/11.

The Ethiopian economy, as shown in Table 3.1above, has registered an average growth rate of more than 11% per annum over the last eight years in a row while the PASDEP high case target

was 10% on average over its planning horizon. Although the major sources of growth in the economy has been agriculture, it has also been complemented by mild performance in industry and strong performance in the service sectors with an average growth rate of 10.2%, 10.8% and 12.9%, respectively.

In terms of the structure of the economy, the contribution of agriculture to overall GDP was 47% in 2003/04. The share declined gradually and reached 41.1% in 2010/11. The nature of industry showed no significant change, accounting on average for 13.3% of the total value added over the last eight years. On the other hand, during this period, the service sector became the dominant in the economy with its share increasing from 39.7% in 2003/04 to 46.6% in 2010/11.

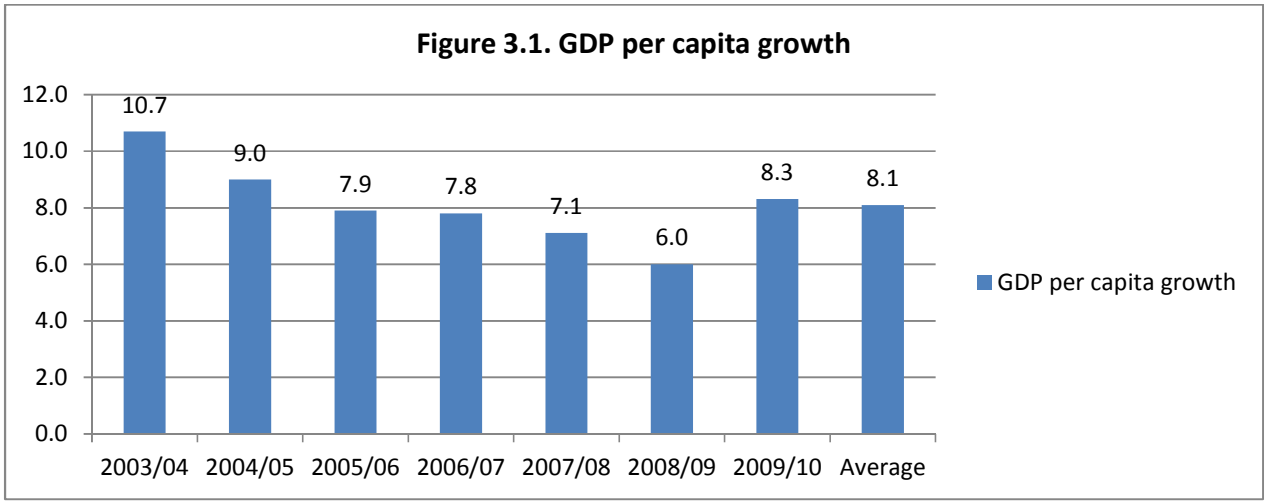
Owing to its size, still the influence of the agriculture sector on the Ethiopian economy is overwhelming. It influences the path of the economy both in terms of its impact on the overall output and employment. Being the dominant sector, agriculture contributes 50% to overall GDP, generates 90% of export earnings and supplies about 70% of the country's raw material to the secondary activities (MoFED, 2012).

Table 3.2: Trends in poverty oriented spending to total government expenditure %

Sector	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	Average
Education	14.2	16.1	20.4	19.7	21.8	23.7	21.3	21.1	22.8	20.12
Health	5.9	4.9	4.3	4.8	4.6	6.6	7.3	6.7	7.1	5.86
Agriculture and Food Security	9.2	8.1	13.4	16.3	16.3	12.5	11.7	11.5	11.1	12.23
Road	10.7	9.9	9.6	11.3	11.2	14.1	17.7	17.4	19.6	13.5
Water and Sanitation	2.8	2.9	2.0	4.5	4.5	6.0	6.1	5.4	6.1	4.48
Total	**43**	**42**	**50**	**57**	**57**	**62.9**	**64.1**	**62.7**	**66.7**	**56.19**

Source: MoFED, Macroeconomic Development in Ethiopia: Annual Report 2010/11 and, Author's Computation.

The share of total spending on poverty targeted sectors (both recurrent and capital) increased from about 43% of total expenditure in 2001/02 to over 66% by the end of 2009/10. As shown in Table 3.2 above, the average share of poverty oriented spending during the nine years period was more than 56% of the total government expenditure. Increases have also been witnessed in spending across all poverty oriented sectors in the past year years, the majority of which going to education, road and, agriculture and food security, each on average accounting for 20.12%, 13.5% and 12.23% of the total government expenditure, respectively.



Source: MoFED, Macroeconomic Development in Ethiopia: Annual Report 2010/11.

Economic growth and distribution of incomes are the major instruments for reducing poverty. Hence, the challenge to grow, the nature of growth itself and, how this growth is redistributed have the most significant effect in eradicating extreme poverty. As shown in figure 3.1 above, the GDP per capita growth has been declining over the past six years, from 10.7 in 2003/04 to 6.0 in 2008/09, showing a 43.9% decline. However, the year 2009/10 marked a turning point in reverting the declining pattern to a rise in 38% from what it was in 2008/09.

3.1.1.2.Human Development

The HDI is a summary measure for assessing long term progress in three basic dimensions of human development: a long and healthy life, access to knowledge and, a decent standard of living. In the past, the human development index tried to measure the nation's progress with regard to these development dimensions by life expectancy at birth; adult literacy rate and combined gross enrollment in education; and GDP per capita in purchasing power parity US dollars (PPP US) respectively. The indicators measuring access to knowledge and a decent standard of living have changed in recent years.

Table 3.3: Ethiopia's HDI Trend

	Life expectancy at birth	Expected years of schooling	Mean year of schooling	GNI per capita (PPP US)	HDI value
1980	**43.9**	**2.5**	**-**	**-**	**-**
1985	**44.4**	**3.0**	**-**	**539**	**-**
1990	**47.0**	**3.1**	**-**	**588**	**-**
1995	**49.2**	**2.6**	**-**	**522**	**-**
2000	**51.4**	**4.4**	**1.5**	**567**	**0.250**
2005	**53.8**	**6.7**	**1.5**	**683**	**0.287**
2010	**56.1**	**8.3**	**1.5**	**992**	**0.328**

Source: UNDP, Human Development Report 2010.

According to the UNDP 2011, Ethiopia's HDI value for 2010 is 0.328, in the low human development category, positioning the country at 157 out of 169 countries and areas. Between 2000 and 2010, Ethiopia's HDI value has increased from 0.250 to 0.328, an increase of 31% or average annual increase of about 2.8%.

Between 2000 and 2010, Ethiopia's life expectancy at birth increased by almost 5 years, mean years of schooling remained the same and expected years of schooling increased by 4 years. Also, Ethiopia's GNI per capita has increased by 75 percent between 2000 and 2010. According to the UNDP 2011, these achievements put Ethiopia at the 11th rank in terms of making fastest progress in the world and the fastest progressing country in sub Saharan Africa.

3.1.1.3.Infrastructural Development

Road: Road infrastructure and access to transport has an important economic and non-economic role of facilitating political and social life of the community, as well as enhancing over all government administration and provision of social services. Considering this fact, the road sector in Ethiopia, as shown in Table 3.2, has been receiving the second largest proportion of the total government expenditure, next to the education sector, accounting for an average 13.5% between 2001/02 and 2009/10.

According to MoFED 2002, the total length of road in the country was limited to 3,0871Km in 2001. However, later on the total length of roads, excluding woreda roads, has reached to 36,000 Km in 2004/05 and finally, 48,800 Km in 2009/10 (MoFED, 2010). The proportion of roads

considered being in good condition has also increased from 28% in 2001, to 64% in 2004/05, and finally to 81% in 2009/10. The time taken, on average country wide, to reach all weather roads has also decreased from 5.7 hours in 2004/05 to 3.7 hours in 2009/10.

Telecommunications: Telecommunications can increase the efficiency of economic, commercial, and administrative activities, improve the effectiveness of social services and distribute the social, cultural and economic benefits of the process of development more equitably throughout the country. According to MoFED (2010), the number of telecommunication customers has increased from 0.56 million in 2004/05 to 6.5 million in 2009/10 and the percentage of rural population with access (within 5 kilometers radius) to a telephone service has also increased from 13% in 2004/05 to 62.14% in 2009/10.

Energy: The role electricity plays in our lives by enhancing our productivity, comfort, safety, health and economy is obvious. The construction of new hydropower plants, including Tekeze, Gilgel Gibe II & III, Tana Belese and the Grand Renaissance Dam, enhances Ethiopia's hydropower generating capacity. In 2004/05 the total hydropower generation capacity country wide was limited to 714 MW. However, at the end of 2009/10, the country's power generation capacity has reached at 2,000 MW. Due to the implementation of the rural electrification program, the number of towns and rural villages which have access to electric power has also increased from 648 in 2004/05 to 5,163 at the end of 2010.

3.1.2. Poverty and Inequality

Income/consumption poverty measurement assumes that there is a well-defined level of standard of living, called the poverty line, below which a person is deemed to be poor. According to MoFED (2008), Ethiopia uses the cost of basic needs approach where, first the food poverty line is defined by choosing a bundle of food typically consumed by the poor. The quantity of the bundle food is determined in such a way as to supply the predetermined level of minimum caloric requirement (2,200 kcal). This bundle is valued at local prices (or it is valued at national prices if the desire is to get a consistent poverty line across regions and groups). Then a specific allowance for the nonfood goods consistent with the spending pattern of the poor is added to the food poverty line. To account for the nonfood expenditure, the food poverty line is divided by the food share of the poorest quintile.

In Ethiopia, consumption is used as a metric to measure poverty. Consumption is a better measure of longer term household welfare because it is subject to less temporal variation than income. Also, in Ethiopia as elsewhere, consumption is likely to be measured more accurately than income. However, for consumption to be an indicator of the household's welfare, it has to be adjusted for differences in the calorie requirement of different household members (age). This adjustment is made by deflating household consumption by an adult equivalent scale that depends on the nutritional requirement of each family member. The adult equivalent scale must, therefore, be different for different age groups and the gender of adult members. The household consumption may have to be adjusted for differences in prices across regions and at different points in time to take care of the differences in the cost of basic needs between areas and over time.

In Ethiopia, the methods described above were first applied in the context of the 1995/96 poverty analysis report. This was based on the cost of 2,200 kcal per day per adult food consumption with an allowance for essential nonfood items. The food poverty line in 1995/96 was 647 birr/year at national average prices. This has been updated by deflating all food and nonfood consumption items by spatial price indices (disaggregated at the regional level relative to national average prices) and temporal price indices (relative to 1995/96 constant prices). Accordingly, the poverty line is set at 1,075 birr/year per adult equivalent at 1995/96 national average constant prices.

Table 3.4: Total and food poverty line in Birr (average price)

	1995/96	2010/11
Kcal per adult per day	2200	2,200
Food poverty line in Birr per adult per year	647.81	1,985
Total poverty line in Birr per adult per year	1,075.03	3,781

Source: MoFED, Interim Report on the 2010/11 Poverty Analysis

To calculate the 1999/00 and 2004/05 poverty indices, first the nominal values of per adult food and non-food consumption items were deflated by the spatial price indices (disaggregated at regional level relative to national average prices) to arrive at real per adult consumption. Second, the 1,075 birr/year poverty line is applied to real per adult household consumption expenditure in order to calculate headcount, poverty gap and squared poverty gap indices. To compute the

2010/11 poverty indices, the 1995/96 poverty line has to be computed at 2010/11 prices. To do so group of consumption items defined in 1995/96 that generate 2200 kilo calories are valued at 2010/11 national average prices in order to obtain food poverty line of 2010/11. Then this food poverty line is divided by the food share of the poorest 25 percent of the population to arrive at the absolute poverty line for the year 2010/11. The food and absolute poverty lines for 2010/11, see Table 3.4 above, are determined to be 1,985 and 3,781 birr/year per adult, respectively.

3.1.2.1. National Poverty Trend

By using the national poverty line, Table 3.5 below, summarizes the levels of national, rural and, urban poverty indices for the 1995/96, 1999/2000, 2004/05 and, 2010/11 survey years.

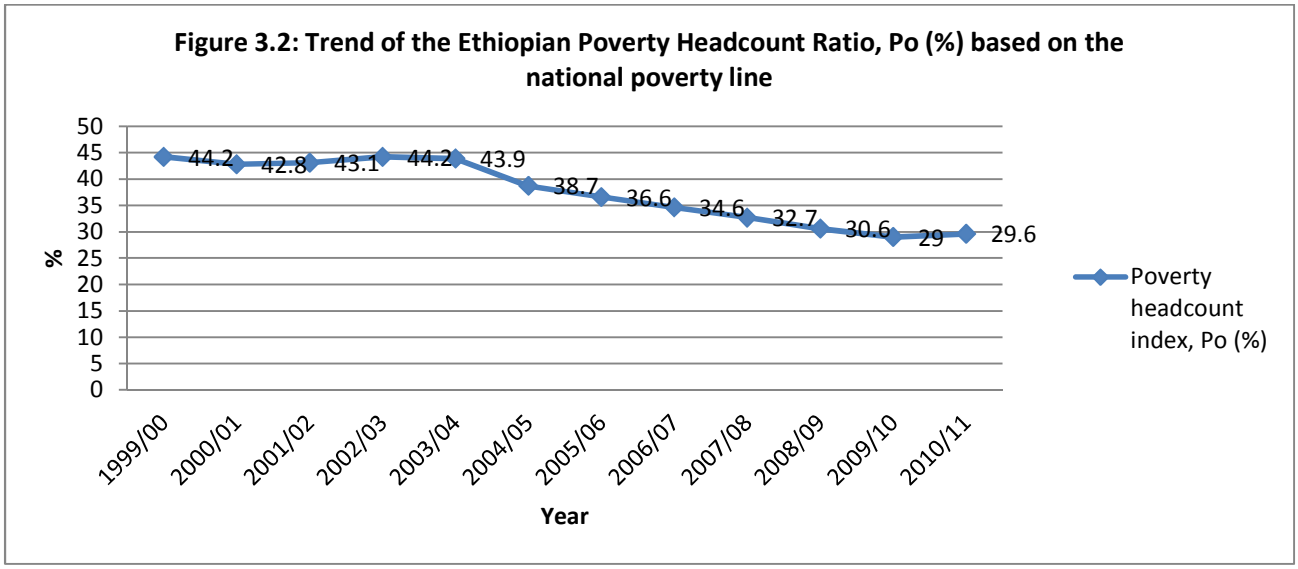
Table 3.5: Poverty in Ethiopia: 1995/96, 1999/00, 2004/05 and, 2010/11.

Year/Period	National			Rural			Urban		
	P_0[1]	P_1[2]	P_2[3]	P_0	P_1	P_2	P_0	P_1	P_2
1995/1996	0.455	0.129	0.051	0.475	0.134	0.053	0.332	0.099	0.041
1999/2000	0.442	0.119	0.045	0.454	0.122	0.046	0.369	0.101	0.039
2004/2005	0.387	0.083	0.027	0.393	0.085	0.027	0.351	0.077	0.026
2010/2011	0.296	0.078	0.031	0.304	0.080	0.032	0.257	0.069	0.027

Source: CSA, HICE surveys of 1995/96, 1999/2000 and 2004/05 and, MoFED, Interim Report on 2010/11 Poverty Analysis.

At the national level, the proportion of poor people (poverty headcount index) has declined substantially between 1999/2000 and 2010/11. The 2010/11 poverty headcount stood at 29.6% and is 33% lower than the index for 1999/2000. The decline in poverty is also much higher during the SDPRP period than the period preceding it. The decline of poverty at the national level is more of the reflection of the decline in rural areas than in urban areas. In rural areas, the poverty headcount fell by 33% from 45.4% in 1999/2000 to 30.4% in 2010/11. In urban areas, the poverty headcount index actually increased by 5 % over the ten years between 1995/96 and 2004/05 from 33.2% to 35.1%, respectively. However, the urban headcount has declined to 25.7% in 2010/11 showing a 30.3% decline over the 1999/2000 index. The data indicates that urban areas have lower poverty than rural areas, indicating that poverty is still more of a rural phenomenon. However, over time, the gap in poverty between rural and urban areas is narrowing (see Table 3.5 above).

[1] P_0 refers to poverty headcount index
[2] P_1 refers to poverty gap index
[3] P_2 refers to squared poverty gap



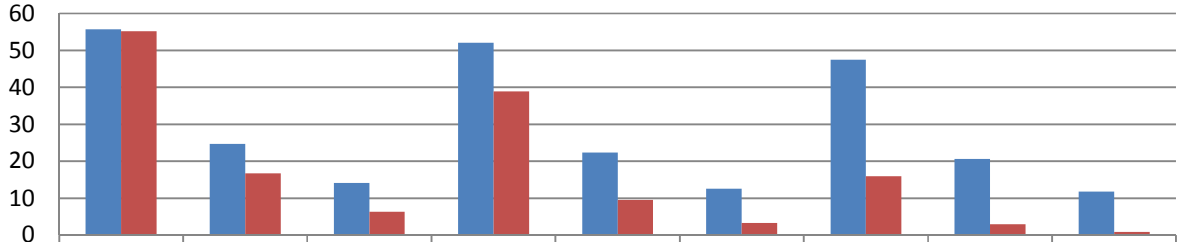
Source: MoFED, Ethiopia: 2010 MDGs Report.

As can be seen from Table 3.5 above, the poverty gap at the national level has declined at a decreasing rate between 1999/2000 and 2010/10. The index has declined by 43.4% from 11.9% to 8.3% in 1999/00 and 2004/05, respectively. However, later on the decline has lost its momentum and had only shown a 6% decline in the next five year between 2004/05 and 2010/11. Even though the decline has slowed down, the poverty gap index has reached 7.8% in 2010/11 from 11.9% in 1999/2000, registering an overall 34.5% decline. When decomposing the poverty gap index for urban and rural areas, it is found that both urban and rural poverty gap index has declined substantially by 31.7% and 34.4%, respectively between 1999/2000 and 2010/11. The data also indicates that the difference in poverty gap index between urban and rural areas is narrowing overtime.

The worst performance in the reduction of the three poverty indices has been observed in the squared poverty gap (see Table 3.5 above). Nationally, the poverty severity index is actually growing overtime. Even though severity has declined by 40% and reached 0.027 in 2004/05 from 0.045 in 1999/2000, the decline has been reverted latter on and it has rose to 0.031 in 2010/11 by showing 14.8% increase over the 2004/05 index. Decomposing the severity index in urban and rural areas, the trends in both urban and rural areas follow that of the national trend. In both urban and rural areas, the index has fallen by 41.3% and 33.3%, respectively between 1999/2000 and 2004/0. However latter on, the index has risen in 2010/11 over 2004/05 for both areas. The

increase is massive in rural areas, accounting for over 18%, than in urban areas where the increase was limited to 4%.

Figure 3.3: Poverty headcount, gap and severity indices for SSA and Ethiopia, using the $1 PPP International Poverty line



	Headcount %	Poverty Gap %	Squared Pov. Gap	Headcount %	Poverty Gap %	Squared Pov. Gap	Headcount %	Poverty Gap %	Squared Pov. Gap
	1999/2000			2005			2008		
SSA	55.69	24.63	14.09	52.1	22.42	12.6	47.51	20.62	11.75
Ethiopia	55.17	16.7	6.39	38.96	9.6	3.28	15.98	2.88	0.87

Source: Author's computation from PovcalNet: the on-line tool for poverty measurement developed by the Development Research Group of the World Bank, http://iresearch.worldbank.org/PovcalNet/index.htm?3#

Comparing Ethiopia's poverty indices with that of the sub-Sahara Africa region, using the $1 PPP international poverty line, show Ethiopia has better indices in all the three measures than the regional average. The data shows that, in all the survey period, the headcount index for Ethiopia has been lower than the regional average and, also the rate of decline in the headcount poverty is very significant in comparison. Ethiopia has managed to more than halve the proportion of the poor by over 71% during the eight years span, when the regional pace was limited to 15.4%, during the same period.

Both the poverty gap and the severity index follow the same pattern as the headcount. Still Ethiopia has lower indices and greater rate of decline, in both poverty gap and severity index, than the sub-Sahara region, during all the survey years.

3.1.2.2.Regional Poverty Trends

The regional distribution of poverty in Ethiopia and trends in this distribution is shown in Tables 3.6, 3.7 and, 3.8.

Table 3.6 reports headcount poverty measure by region. In 1999/2000, pervasive poverty levels have been registered in Tigray, Afar, Benishangul Gumz, SNNP and, Gambella, each accounting for more than half of the population living under the national poverty line 61.4%, 56.0%, 54.0%,

50.9% and, 50.5%, respectively. Poverty estimates were lowest in Harari (25.8%) followed by Dire Dawa (33%), during the same period. The proportion of people living under poverty line has declined in all regions, in 2010/11 over 1999/2000. Harari, Tigray, Benishangul Gumuz and, SNNP have registered the greatest rate of improvement in reducing the proportion of the poor 57.0%, 48.2%, 46.5% and, 41.8%, respectively during the same period. However, the decline in Harari and Somali regions came after a 4.6% and 10.5% rise in 2004/05 over 1999/2000 indices.

Table 3.6: Trends in poverty headcount indices and changes in poverty headcount indices by region 1995/96-2010/11 based on the national poverty line

Region	1995/96			1999/2000			2004/05			2010/11			Change in %, 2010/11 over 1999/2000		
	R	U	T	R	U	T	R	U	T	R	U	T	R	U	T
Tigray	0.579	0.457	0.561	0.616	0.607	0.614	0.510	0.367	0.485	0.365	0.137	0.318	-40.7	-77.4	-48.2
Afar	0.518	-	0.331	0.680	0.268	0.560	0.429	0.279	0.366	0.411	0.237	0.361	-39.5	-11.6	-35.5
Amhara	0.567	0.373	0.543	0.429	0.311	0.418	0.404	0.378	0.401	0.307	0.292	0.305	-28.4	-6.1	-27.0
Oromia	0.347	0.276	0.340	0.404	0.359	0.399	0.372	0.346	0.370	0.293	0.248	0.287	-27.5	-30.9	-28.1
Somali	0.346	-	0.309	0.441	0.261	0.379	0.452	0.353	0.419	0.351	0.231	0.328	-20.4	-11.5	-13.5
B-G	0.476	0.345	0.468	0.558	0.289	0.540	0.456	0.345	0.445	0.301	0.213	0.289	-46.1	-26.3	-46.5
SNNPR	0.565	0.459	0.558	0.517	0.402	0.509	0.382	0.383	0.382	0.300	0.258	0.296	-42.0	-35.8	-41.8
Gambella	0.418	0.244	0.343	0.546	0.384	0.505	Na	Na	Na	0.325	0.307	0.320	-40.5	-20.0	-36.6
Harari	0.133	0.291	0.220	0.149	0.350	0.258	0.206	0.326	0.270	0.105	0.117	0.111	-29.5	-66.6	-57.0
A.A	0.404	0.300	0.302	0.271	0.362	0.361	0.299	0.326	0.325	---	0.281	0.281	-	-22.4	-22.2
D.D	0.366	0.246	0.295	0.332	0.331	0.331	0.398	0.329	0.352	0.142	0.349	0.283	-57.2	5.4	-14.5
Total	0.475	0.322	0.455	0.454	0.369	0.442	0.393	0.351	0.387	0.304	0.257	0.296	-33.0	-30.3	-33.0

Source: Author's computation from HICE Surveys of 1995/96, 1999/00, 2004/05 and, Interim Report on the 2010/11 Poverty Analysis

In 1999/2000, urban poverty was the worst in Tigray region, at above 60%; while it was relatively better in Somali 26.1% followed by Afar 26.8% and, Benishangul Gumuz 28.9%. In all regions, except Dire Dawa (+5.4%), urban poverty has declined in 2010/11 over the 1999/2000 index. More than 50% decline was registered in Tigray and Harari regions, making the proportion of the poor as low as 13.7% and 11.7%, respectively in 2010/11.

When it comes to rural poverty, in 1999/2000, the proportion of the poor was colossal in Afar, Tigray, Benishangul Gumuz, Gambella and, SNNP, each accounting for more than half of the respective regions population. Whereas, Harari has the lowest proportion of rural poor accounting for only 14.9% and 10.5% in 1999/2000 and 2010/11, respectively. The proportion of the rural poor has declined in all regions, and the largest rate of decline has been observed in Dire Dawa for over a 57%, during the same period.

Table 3.7: Trends in poverty gap indices and changes in poverty gap by region 1995/96-2004/05 based on the national poverty line

Region	1995/96			1999/2000			2004/05			Change in %, 2004/05 over 1999/2000		
	R	U	T	R	U	T	R	U	T	R	U	T
Tigray	0.177	0.127	0.169	0.185	0.199	0.187	0.104	0.079	0.100	-43.8	-60.3	-46.5
Afar	0.157	-	0.100	0.203	0.065	0.163	0.078	0.061	0.070	-61.6	-6.2	-57.1
Amhara	0.166	0.122	0.160	0.110	0.085	0.108	0.104	0.096	0.103	-5.5	12.9	-4.6
Oromia	0.082	0.085	0.082	0.103	0.098	0.102	0.075	0.080	0.076	-27.2	-18.4	-25.5
Somali	0.077	0.003	0.069	0.096	0.060	0.083	0.099	0.079	0.092	3.1	31.7	10.8
B-G	0.137	0.039	0.131	0.166	0.067	0.159	0.106	0.078	0.103	-36.1	16.4	35.2
SNNPR	0.178	0.130	0.175	0.150	0.103	0.147	0.071	0.079	0.072	-52.7	-23.3	-51.0
Harari	0.020	0.074	0.050	0.017	0.079	0.050	0.033	0.071	0.053	94.1	-10.1	6.0
A.A	0.108	0.087	0.087	0.059	0.097	0.096	0.052	0.063	0.063	-11.9	-35.1	-34.4
D.D	0.085	0.056	0.068	0.065	0.082	0.077	0.063	0.065	0.064	-3.1	-20.7	-16.9
Total	0.134	0.099	0.129	0.122	0.101	0.119	0.085	0.077	0.083	-30.3	-23.8	-30.3

Source: Author's Computation from the HICE surveys of 1995/96, 1999/2000 and, 2004/05

Table 3.7 assesses the poverty gap by region. Tigray 18.7%, Afar 16.3%, Benishangul Gumuz 15.9% and, SNNP 14.7% are the regions where the poverty gap is the largest, in 1999/2000. The gap is the smallest in Harari 5.0% followed by Dire Dawa 7.7%. Comparing the poverty gap between rural and urban areas across different regions shows that Harari 1.7% is still the region where rural poverty gap is the least while the highest is Afar 20.3%, Tigray 18.5%, Benishangul Gumuz 16.6% and, SNNP 15.0%. The urban poverty gap is the highest in Tigray 19.9% and, the lowest in Somali 6.0%, Afar 6.8% and, Benishangul Gumuz 6.7%.

Between 1999/00 and 2004/05, the poverty gap declines for all regions, except Benishangul Gumuz (+35.2%), Somali (+10.8%) and, Harari (+6%), although there are considerable differences in the magnitude of these declines. Decomposing the poverty gap between rural and urban areas, rural poverty gap has declined in all regions but rose in Harari by 94% and Somali by 3%. Just like rural poverty gap, the urban poverty gap index for all regions has declined except in Somali 31.7%, Benishangul Gumuz 16.4% and Amhara 12.9%. Even though, there has been decline in most regions, except the aforementioned ones, in the urban and rural poverty gap, there are considerable differences in the magnitude of the declines.

Table 3.8: Trends in the squared poverty gap and changes in the squared poverty gap, by region, 1995/96-2004/05

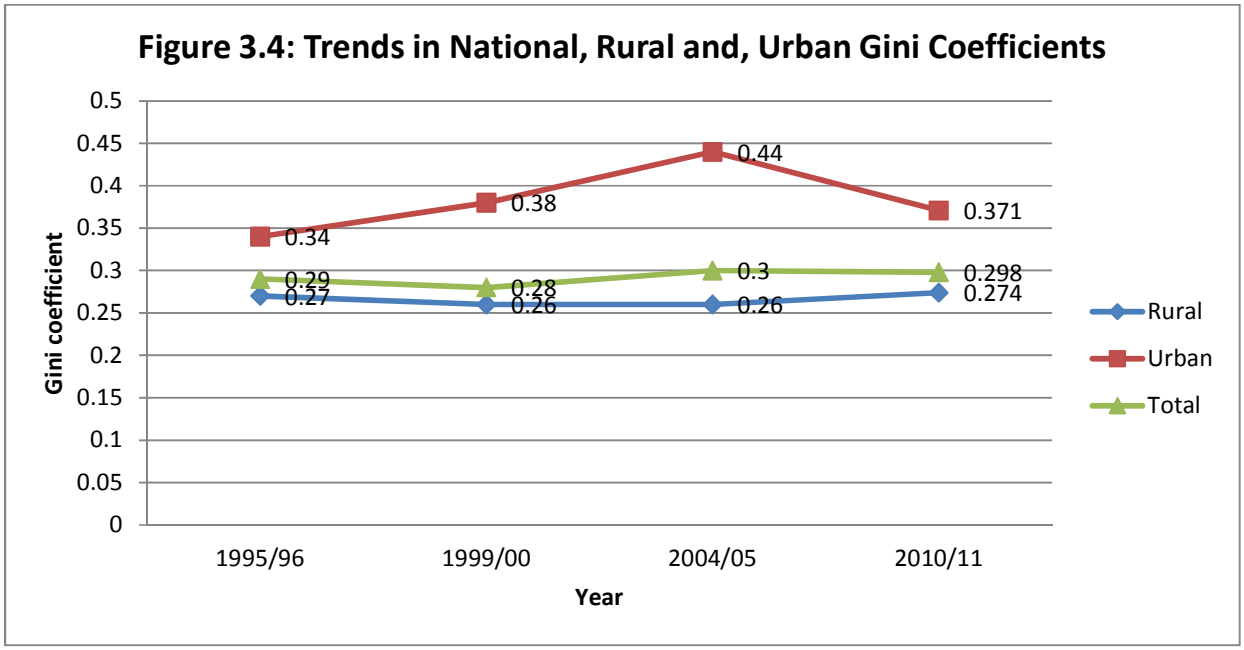
Region	1995/96			1999/2000			2004/05			Change in %, 2004/05 over 1999/2000		
	R	U	T	R	U	T	R	U	T	R	U	T
Tigray	0.075	0.049	0.071	0.072	0.086	0.074	0.032	0.023	0.031	-55.6	-73.3	-58.1
Afar	0.064	-	0.041	0.081	0.022	0.064	0.021	0.023	0.022	-74.1	4.5	-65.6
Amhara	0.006	0.057	0.065	0.040	0.032	0.039	0.036	0.036	0.036	-10.0	12.5	-7.7
Oromia	0.028	0.035	0.029	0.037	0.037	0.037	0.024	0.027	0.024	-35.1	-27.0	-35.1
Somali	0.026	0.001	0.023	0.032	0.021	0.028	0.030	0.027	0.029	-6.3	28.6	3.6
B-G	0.055	0.011	0.052	0.067	0.022	0.064	0.035	0.027	0.034	-47.8	22.7	-46.9
SNNPR	0.074	0.050	0.073	0.060	0.038	0.058	0.022	0.025	0.022	-63.3	-34.2	-62.1
Harari	0.004	0.025	0.016	0.003	0.025	0.015	0.007	0.020	0.014	133.3	-20.0	-6.7
A.A	0.040	0.035	0.035	0.020	0.036	0.036	0.012	0.019	0.019	-40.0	-47.2	-47.2
D.D	0.029	0.020	0.024	0.019	0.028	0.025	0.015	0.018	0.017	-21.1	-35.7	-32.0
Total	0.053	0.041	0.051	0.046	0.039	0.045	0.027	0.026	0.027	-41.3	-33.3	-40.0

Source: Author's computation from the HICE survey of 1995/96, 1999/2000 and 2004/05

The regional distribution of the squared poverty gap, according to Table 3.8 above, follows the same pattern as the headcount and poverty gap indices. In 1999/2000, severity was the highest in Tigray region and lowest in Harari. It was only in Somali region and rural Harari that the poverty severity index did not decline between 2004/05 and 1999/2000. Even though, declines have been registered across many regions in the rural, urban and total severity indices, the data shows significant difference in the magnitude of the declines.

3.1.3. Consumption Inequality

Trends in consumption inequality as measured by the Gini coefficient are shown in figure 3.4 below. In 2010/11, Gini coefficient for urban areas became 0.37 and rural 0.27. Similar to the previous years, inequality is higher in urban areas than in rural areas. However, rural inequality marginally increased, while urban inequality declined substantially leaving the national Gini coefficient unchanged. Since 1995/96 urban inequality was increasing at an alarming rate reaching 0.44 in 2004/05, but the rising trend of inequality is reverted after 2005.



Source: MoFED 2012, Interim Report on the 2010/11 Poverty Analysis

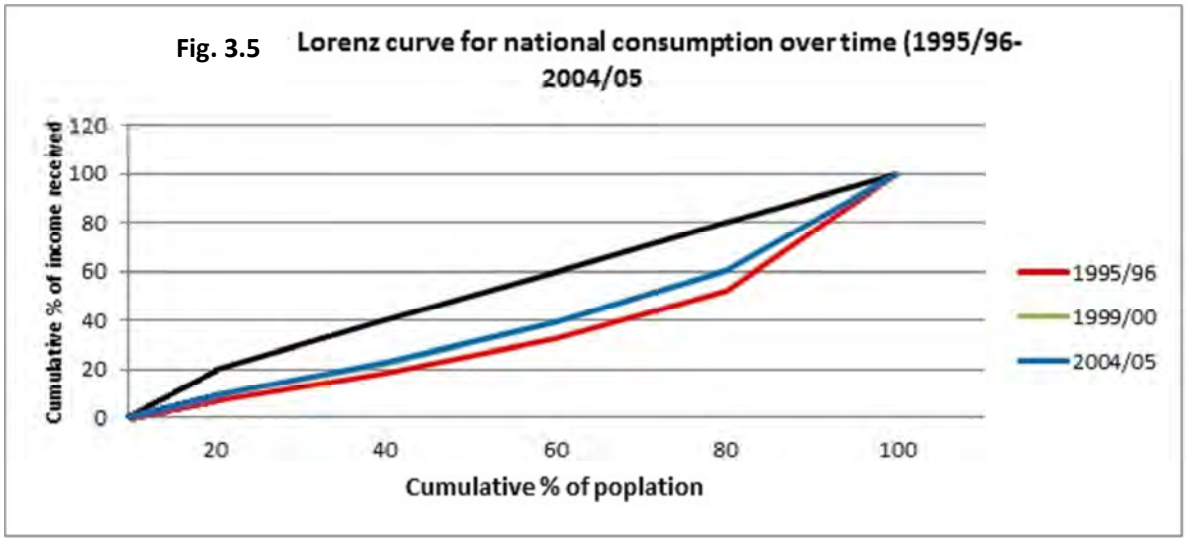
According to the World Bank data, Table 3.9 below, the share of the consumption that accumulates to the poorest 20% of the population has been increasing over the 1995/96-2004/05 period. The national consumption share of the poorest quintile was limited to 7.17% during the 1995/96 period, however, later on in 1999/2000 their share has rose to 9.16% showing 27.75% increase over the five year. Even though, the share of the poorest has continued to accrue till 2004/05 over the 1999/2000 period, its growth rate has been limited to only 1.3% and has marginally increased to 9.28% from 9.16%.

Table 3.9: Consumption Distribution

Year	Consumption share by quintile %				
	1	2	3	4	5
1995/96	7.17	10.87	14.45	19.79	47.72
1999/00	9.16	13.19	16.72	21.52	39.41
2004/05	9.28	13.22	16.78	21.36	39.36

Source: Author's computation from PovcalNet: the on-line tool for poverty measurement developed by the Development Research Group of the World Bank, http://iresearch.worldbank.org/PovcalNet/index.htm?3#

As shown in the Lorenz curve below, the consumption inequality has narrowed significantly in 1999/2000 over 1995/96 when compared with the change in 2004/05 over 1999/2000.



Source: Author's computation from PovcalNet: the on-line tool for poverty measurement developed by the Development Research Group of the World Bank, http://iresearch.worldbank.org/PovcalNet/index.htm?3#

The data in Table 3.10 shows, Afar and Amhara are the only regions where overall consumption inequality has declined by 17.5% and 3.6%, respectively between 1999/00 and 2004/05. Somali is the only region where the consumption inequality remained the same. The rest regions have experienced an increase in inequality of consumption, with a varying degree, during the same period.

Table 3.10: Regional trends in inequality as measured by the Gini Coefficient of consumption

Region	1995/96			1999/2000			2004/05			Change in %, 2004/05 over 1999/2000		
	R	**U**	**T**	**R**	**U**	**T**	**R**	**U**	**T**	**R**	**U**	**T**
Tigray	0.26	0.29	0.27	0.25	0.35	0.27	0.29	0.49	0.37	16.0	40.0	37.0
Afar	0.31	0.19	0.34	0.38	0.34	0.4	0.28	0.28	0.33	-26.3	-17.6	-17.5
Amhara	0.25	0.34	0.27	0.27	0.36	0.28	0.25	0.39	0.27	-7.4	8.3	-3.6
Oromia	0.27	0.33	0.28	0.24	0.34	0.26	0.25	0.43	0.28	4.2	26.5	7.7
Somali	0.25	0.21	0.27	0.27	0.34	0.31	0.27	0.37	0.31	0.0	8.8	0.0
B-G	0.26	0.3	0.27	0.28	0.33	0.3	0.28	0.43	0.32	0.0	30.3	6.7
SNNP	0.28	0.32	0.29	0.26	0.35	0.27	0.27	0.40	0.29	3.8	14.3	7.4
Gambela	0.3	0.22	0.27	0.23	0.32	0.26	-	-	-	Na.	Na.	Na.
Harari	0.29	0.32	0.31	0.22	0.3	0.27	0.29	0.40	0.36	31.8	33.3	33.3
A.A	0.26	0.35	0.35	0.23	0.43	0.42	0.33	0.46	0.46	43.5	7.0	9.5
D.D	0.22	0.28	0.27	0.21	0.32	0.3	0.23	0.43	0.39	9.5	34.4	30.0

Source: MoFED 2008, Dynamics of Growth and Poverty in Ethiopia.

Decomposing the measure in to rural and urban shows, all Afar and rural Amhara are the only to see a decline between 1999/2000 and 2004/05. Rural Somali and Benishangul Gumuz have sustained the same level of inequality, whereas, the rest of the regions have showed an increase in the consumption inequality with a varying degree, during the same year.

3.1.4. Poverty and Employment

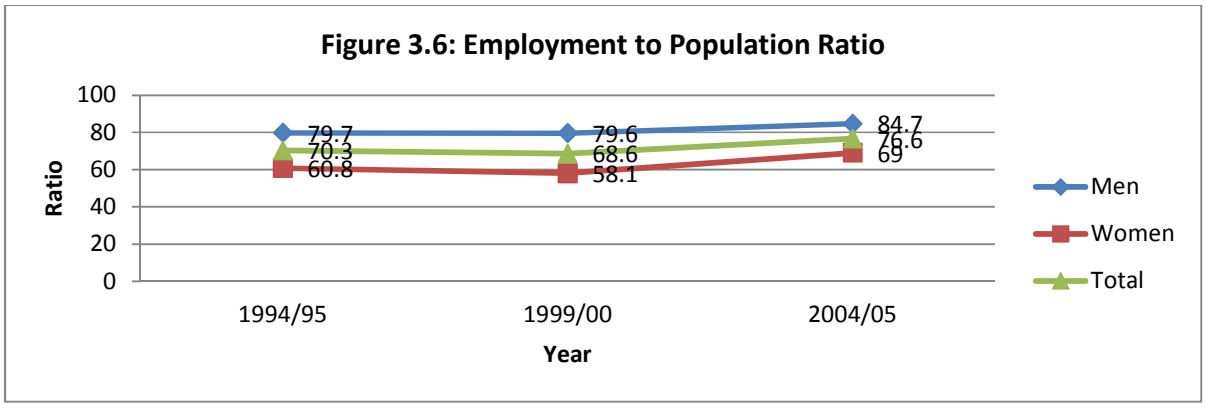
Providing employment opportunities, thereby creating a means to make a living is a critical point to be considered while to trying to reduce poverty.

3.1.4.1.Growth rate of GDP per person employed (labor productivity)

A necessary condition for poverty reduction is output growth per person employed. Sustained labor productivity growth is critical for improving the potential of economies to reduce poverty. This is achieved by increasing output, demand for labor, and through higher wages and income. (This indicator is not monitored for Ethiopia)

3.1.4.2.Employment-to-population ratio

Employment to population ratio provides information on the extent to which the population is engaged in productive activities. This ratio, therefore, can stand as a measure of an economy's ability to create jobs. Employment to population ratio, for Ethiopia, is calculated as a percentage of total employed persons to that of the total population aged ten years and above. High employment to population ratio means a large proportion of the population is employed, while low employment to population ratio means a large share of the population is not involved in productive activities, because they were either unemployed or out of the labor force.



Source: Author's computation from International Labour Organization, key indicators of the labour market database.: http://kilm.ilo.org/kilmnet/view.asp?t=Table%202b.%20Employment-to-population%20ratio%20%28national%20estimates,%20by%20sex%20and%20age%20group%29&I=K02b&C=|ET|&Y=*&S=|1|&P3=|0||1||2|

The size of employed population aged ten years and over registered in 2004/05 was 76.6% of the total economically active persons in the country. As comparing this figure to that of 68.6% in

1999/2000, there has been an increase by 11.66% during the five years period. However, this increase in the proportion of the employed came after a marginal 2.42% decline in 1999/2000 over 1995/96. Decomposing the population in to male and female shows, the former has higher proportion in all the survey periods than the later.

Table 3.11: Employment to population ratio in urban areas by region and sex

Region and Sex	2004			2009			2010		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Country Total	51.6	34.6	42.6	59.0	37.3	47.5	58.5	39.0	48.2
Tigray	43.6	30.1	36.3	57.3	38.1	46.5	56.0	38.3	46.2
Afar	62.0	31.5	46.5	60.7	31.7	46.2	59.0	32.5	45.1
Amhara	47.8	38.4	42.6	62.0	41.0	50.6	58.6	40.5	48.9
Oromia	51.1	33.4	42.0	59.1	36.7	47.3	59.6	40.2	49.5
Somali	49.1	38.5	43.7	50.0	31.7	41.1	49.5	28.1	38.9
Benishangul-Gumuz	53.5	34.2	43.7	64.2	47.1	55.3	66.7	44.3	55.3
SNNP	57.2	38.8	47.7	61.2	41.1	50.9	61.8	41.0	51.0
Gambella	-	-	-	57.8	35.3	46.0	54.1	41.6	47.3
Harari	51.6	38.7	44.8	62.3	44.0	52.5	62.7	43.7	52.5
Addis Ababa	54.0	33.3	42.9	57.6	34.0	44.9	57.9	38.0	47.2
Dire Dawa	47.9	29.0	37.8	51.2	35.8	43.2	49.6	32.5	40.7

Source: CSA 2011, key findings on the 2010 urban employment unemployment survey.

The employment to population ratio, as shown in Table 3.11 above, for urban areas of the country is reported to be 48.2 percent. This means about 48 percent of the total urban population of the country aged 10 years and over were working in productive activities during the 2010 survey period. The employment to population ratio for male was 58.5 percent, and this is significantly higher than the ratio for females 39 percent. Engagement in productive activity has shown an increasing trend, that is, from 43% in 2004 rose to 47.5% in 2009 and thereafter slightly increased to 48% in 2010.

The highest employment to population ratio during the 2010 survey was registered for Benishangul-Gumuz region 55.3% and the lowest share reported for Somali region 38.9%. The ratio for the rest of other regions falls within the range of 40-53 percent. The proportion has also increased for all regions in 2010 over 2004, except for Somali and Afar.

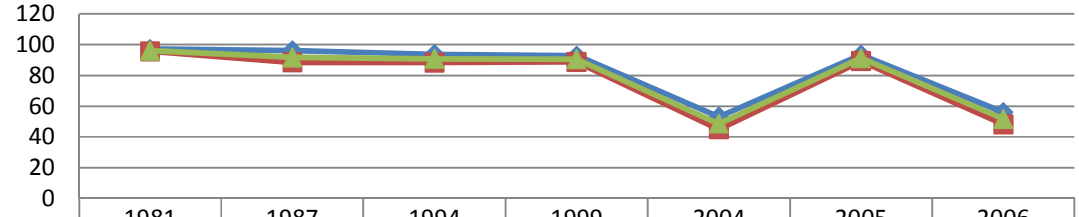
3.1.4.3.Proportion of employed people living below poverty line

This indicator shows the ability of the economy to create decent employment. It indicates the proportion of the working poor or the share of individual who are employed but nonetheless live in a household whose members are estimated to be living below the international poverty line. The proportion of employed people in Ethiopia, living below the international poverty line, i.e. less than $1 PPP per day, accounts for 50.9 and 34.9 percent in 1999/00 and 2004/05, respectively[4].

3.1.4.4.Vulnerable employment

As discussed in chapter two, own-account workers are those workers who, working on their own account or with one or more partners, hold the type of jobs defined as a self-employment jobs (i.e. remuneration is directly dependent upon the profits derived from the goods and services produced), and have not engaged on a continuous basis any employees to work for them during the reference period. Whereas contributing family workers, also known as unpaid family workers, are those workers who are self-employed, as own-account workers in a market-oriented establishment operated by a related person living in the same household. The sum of the employment status groups of own-account workers and contributing family workers is called vulnerable employment.

Figure 3.7: % of Vulnerable Employment to Total Employment



	1981	1987	1994	1999	2004	2005	2006
Female	97.1	96.2	93.7	92.8	53.1	93.3	56.1
Male	95.6	88.5	88.4	88.8	45	89.3	48.3
Total	96.1	91.6	90.7	90.5	48.6	91.2	51.8

Source: Author's computation from the official United Nations site for the millennium development goals indicators: http://mdgs.un.org/unsd/mdg/SeriesDetail.aspx?srid=760

[4] United Nations Statistics Division, *Millennium Development Goals Indicators*. Retrieved April 5, 2012 from the Official United Nations Site for Millennium Development Goals Indicators: http://mdgs.un.org/unsd/mdg/SeriesDetail.aspx?srid=759

The share of vulnerable employment to the total employment has declined steadily between 1981 and 1999. However, later on, the proportion has shown an up and down trend between 1999 and 2006. Observing the 1999-2006 trends shows a significant decline by 42.76%. However, this massive decline, over the seven years span, has come after 87.6% increase between 2004 and 2005. In all the survey period, the proportion of female in vulnerable employment is greater than males.

3.1.5. Poverty and Nutrition

The achievement of food self-sufficiency is one of the key objectives of the government as articulated in its GTP and rural development policies and strategies, which is also consistent with the MDG goal of eradicating extreme poverty and hunger. As for total poverty, the various aggregate poverty measures are also computed for food poverty. The food poverty index measures the proportion of food-poor people that fall below the food poverty line.

Table 3.12: Trends of national, rural and, urban food poverty, using the national food poverty line.

	Poverty indices over time				Change in %, 1999/2000 over 1995/96	Change in %, 2010/11 over 1999/2000
	1995/96	1999/00	2004/05	2010/11		
National						
Headcount index	0.495	0.419	0.38	0.336	-15.3	-19.8
Poverty gap index	0.146	0.107	0.12	0.105	-26.7	-1.9
Poverty severity index	0.06	0.039	0.049	0.046	-35	17.9
Rural						
Headcount index	0.516	0.411	0.385	0.347	-20.3	-15.6
Poverty gap index	0.152	0.103	0.121	0.111	-32.2	7.8
Poverty severity index	0.062	0.038	0.049	0.05	-38.7	31.6
Urban						
Headcount index	0.365	0.467	0.353	0.279	28	-40.3
Poverty gap index	0.107	0.127	0.117	0.073	18.7	-42.5
Poverty severity index	0.044	0.047	0.048	0.029	6.8	-38.3

Source: Author's computation from HICE survey reports of 1995/96, 1999/00, 2004/05 and, Interim Report on the 2010/11 Poverty Analysis

The food poverty index measures the proportion of food poor people that fell below the food poverty line. According to Table 3.12, the national food poverty index declined from 42% in 1999/2000 to 34% in 2010/11. This represents a 19.8% decline in the food poverty index, during the same period.

When food poverty is decomposed into rural and urban areas, it is found that both rural and urban food poverty headcount index has declined by 15.6% and 40.3%, respectively during the same period. However, for the latter, the decline was after an increase of 28% during the 1995/96-1999/2000 period and the index declined only by 3% during the 10 year period between 1995/96 and 2004/05. However, later on, the decline gained momentum and showed a 21% decline in 2010/11 over the 2004/05 index. As for the rural areas, the decline was moderate when the 1999/2000-2010/11 period is considered, recording 15.6%.

Despite this, no meaningful decline has been observed in the depth (poverty gap) and severity (squared poverty gap) of national food poverty during the 1999/2000-2010/11 period. In fact, the national squared poverty index has witnessed a 17.9% increase and the poverty gap has registered a subtle decline of 1.9%. The increase of severity at the national level is mainly due to the substantial increase of the index in rural areas, in the same period.

When the food poverty gap and severity indices are decomposed in to rural and urban area, it is found that both indices has declined substantially in urban areas by 42.5% and 38.3%, respectively during the 1999/2000-2010/11 period. However, for rural area circumstances indeed have worsened, registering a 7.8% and 31.6% increase in the poverty gap and severity index, respectively in the same period.

Table 3.13: Trends of regional food poverty headcount indices 1995/96-2010/11

Region	1995/96			1999/2000			2004/05			2010/11			Change In % 2010/11over 1999/2000		
	R	U	T	R	U	T	R	U	T	R	U	T	R	U	T
Tigray	0.68	0.50	0.65	0.52	0.65	0.54	0.48	0.41	0.47	0.40	0.25	0.37	-22.24	-61.51	-30.91
Afar	0.52	0.00	0.33	0.64	0.29	0.53	0.44	0.33	0.39	0.34	0.28	0.32	-46.61	-2.77	-39.70
Amhara	0.61	0.34	0.57	0.32	0.35	0.33	0.39	0.36	0.39	0.45	0.28	0.43	38.08	-20.90	30.77
Oromiya	0.43	0.35	0.42	0.37	0.49	0.38	0.37	0.35	0.37	0.33	0.32	0.33	-9.26	-35.44	-12.89
Somali	0.43	0.00	0.38	0.47	0.34	0.43	0.44	0.35	0.41	0.29	0.17	0.27	-38.38	-50.00	-37.18
B/G	0.61	0.27	0.59	0.56	0.41	0.55	0.46	0.33	0.44	0.37	0.26	0.35	-35.05	-36.19	-36.41
SNNP	0.52	0.46	0.52	0.55	0.54	0.55	0.37	0.38	0.37	0.26	0.27	0.26	-52.92	-49.91	-52.65
Gambella	0.33	0.19	0.28	0.62	0.43	0.57	Na	Na	Na	0.24	0.30	0.26	-61.17	-30.25	-54.55
Harari	0.16	0.28	0.23	0.16	0.48	0.33	0.18	0.31	0.25	0.04	0.05	0.05	-72.26	-89.73	-85.98
A.A	0.39	0.37	0.37	0.36	0.48	0.48	0.32	0.32	0.32	--	0.26	0.26	--	-45.51	-45.05
D.D	0.31	0.38	0.35	0.25	0.29	0.28	0.38	0.33	0.35	0.14	0.25	0.22	-45.85	-10.88	-21.38
Total	0.52	0.37	0.50	0.41	0.47	0.42	0.39	0.35	0.38	0.35	0.28	0.34	-15.57	-40.26	-19.81

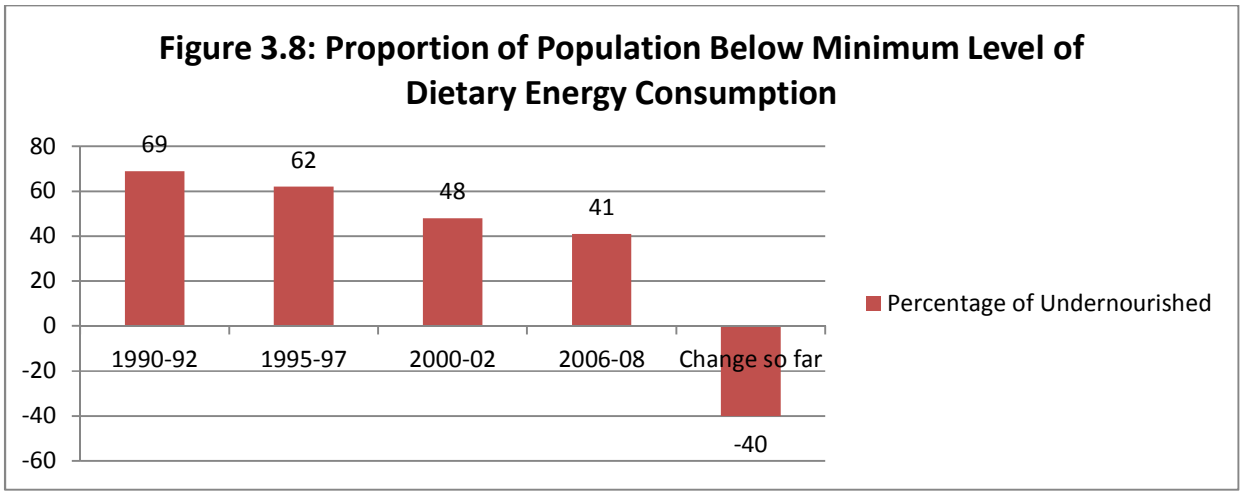
Source: Author's computation from HICE surveys of 1995/96, 1999/2000, 2004/05 and, Interim report on the 2010/11 poverty analysis

According to Table 3.13 above, the proportion of the population that fall below the national food poverty line has declined in all regions, but Amhara where the food poverty headcount index has rose by 30.7% between 1999/2000 and 2010/11. The greatest decline in the proportion of the food poor, 86%, has been observed in Harari region where the proportion became 5% in 2010/11 from 33% in 1999/2000. SNNP and Gambella are also regions where the proportion of the food poor declined by over 50%, over the same period.

Decomposing the food poverty headcount index in to urban and rural shows, the index has declined in the rural and urban areas of all regions, except rural Amhara where it rose by over 38%, between 1999/2000 and 2010/11. Urban food poverty has declined over 50% in Tigray, Somali, SNNP and, Harari regions, whereas a 50% plus decline in rural poverty has been observed in SNNP, Gambella and, Harari regions. Harari is the region where the greatest decline has been observed, with a 72.3% and 89.7% drop in the rural and urban areas, respectively, during the same period.

3.1.5.1.Undernourishment

The undernourished or food deprived are those individuals whose food intake falls below the minimum level of dietary energy requirements i.e. 2200 kcal/per day. According to figure 3.8 below, the proportion of those who fall below the minimum level of dietary energy consumption has been declining over time. During the eighteen years span, the proportion has declined by over 40% from 69% in 1990/02 to 48% in 2000/02, and finally to 41% 2006/08.



Source: Food and Agriculture Organization of the United Nations, 2011.

3.1.5.2.Child Nutrition

To provide data on the nutritional status of young children, results from the 2011 Ethiopian Demographic Health Survey (EDHS) are included in the analysis. The 1999/2000 and 2004/05 Welfare monitoring surveys use the international reference population, often referred as the NCHS/WHO reference population, which was formulated by the national center for health statistics (NCHS) as a reference population for the united states and later adopted by the world health organization (WHO).

The NCHS/WHO reference standard represents the distribution of height and weight by age and sex in a well-nourished population. In a well-nourished population, 2.3 percent of children fall below minus two standard deviations. However, the 2011 EDHS used the new standard reference population called the WHO child growth standard, which was released in April 2006, and thus the measures from the 2011 EDHS are not directly comparable to previous EDHS and/or WMS results.

The tables below (Table 3.14 and 3.15) show nutritional status for children under age 5 years, according to the three anthropometric indices i.e. stunting, wasting and underweight. According to the CSA 2011, Height-for-age is the measure of linear growth. A child who is below minus two standard deviations from the reference mean for height-for-age is considered short for his/her age, or stunted, a condition reflecting the cumulative effect of chronic malnutrition. In the 2011 EDHS, the percentage of children who are stunted is 44% and results also show small differences by sex. In rural areas, 46% of children are stunted, versus 32% in urban areas. 30% or more of children are stunted in all regions except Addis Ababa and Gambella accounting for 22% and 27%, respectively.

Weight-for-height describes current nutritional status. A child who is below two standard deviations from the reference mean for weight-for height is considered too thin for his/her height, or wasted, a condition reflecting acute or recent nutritional deficit (CSA, 2011). In 2011, overall 10% of children are wasted. Differences are observed by sex and urban-rural residence, with 11 % of male children being wasted compared with 8% of female children and 10% of children in rural areas compared with 6% of children in urban areas. A higher percentage of children were found to be wasted in Somali region (22%) than any other region.

Table 3.14: Trends of preschool malnutrition in Ethiopia, by region.

Region	Height for Age (Stunting)			Weight for Height (wasting)			Weight for Age (Underweight)		
	2000	2004	2011[5]	2000	2004	2011	2000	2004	2011
Tigray	58.7	45.0	51.4	11.9	12.2	10.3	53.3	40.3	35.1
Afar	42.1	35.8	50.2	11.3	16.2	19.5	29.2	37.7	40.2
Amhara	64.5	58.3	52.0	10.7	7.9	9.9	52.6	45.4	33.4
Oromiya	53.6	42.3	41.1	8.9	8.5	9.7	40.4	33.6	26.0
Somali	48.2	37.0	33.0	11.5	12.7	22.2	37.2	33.5	33.5
Benishangul-Gumuz	51.1	41.0	48.6	11.5	9.4	9.9	43.7	39.2	31.9
SNNP	56.3	47.0	44.1	8.9	7.0	7.6	46.2	36.2	28.3
Gambella	40.5	-	27.3	13.3	-	12.5	32.0	-	20.7
Harari	46.6	29.7	29.8	5.0	6.4	9.1	28.3	24.9	21.5
Addis Ababa	36.7	22.7	22.0	5.3	5.4	4.6	18.2	12.7	6.4
Dire Dawa	39.7	26.0	36.3	11.9	42.0	12.3	31.0	24.3	27.6

Source: Author's computation from WMS 2000, 2005 and, EDHS 2011.

Weight-for-age is a composite index of weight-for-height and height-for-age, and thus, does not distinguish between acute malnutrition (wasting) and chronic malnutrition (stunting). A child can be underweight for his/her age because he or she is stunted, wasted or both. Weight-for-age is an overall indication of a population's nutritional health (CSA, 2011). In 2011, overall 29% of all children are underweight. A higher percentage of males are underweight compared with females (31% and 27%, respectively). 30% of rural children are underweight compared with 16% of urban children. Afar (40%) has the greatest percentage of children who are underweight than any other region in Ethiopia.

[5] Results of 2011 are not directly comparable with the previous years.

Table 3.15: Trends of preschool malnutrition in Ethiopia

Level	Wasting (weight for height)			Stunting (height for age)			Underweight (weight for age)		
	Boys	**Girls**	**Both**	**Boys**	**Girls**	**Both**	**Boys**	**Girls**	**Both**
Country Level									
1996	7.8	6.9	7.3	67.6	63.8	65.7	47.8	42.9	45.4
1998	10.7	8.4	9.6	55.9	53.5	54.7	46.5	43.2	44.9
2000	10.2	8.9	9.6	58.1	55.3	56.7	45.9	44.1	45.0
2004	8.6	7.9	8.3	48.3	45.5	46.9	37.6	36.7	37.1
2010/11[6]	11.1	8.2	9.7	46.2	42.5	44.4	30.5	26.8	28.7
Rural									
1996	8.0	7.2	7.6	68.4	64.8	66.6	49.3	44.0	46.7
1998	10.8	8.6	9.7	57.4	55.0	56.2	47.9	44.7	46.3
2000	10.4	9.2	9.8	59.4	56.3	57.9	47.6	45.6	46.7
2004	8.8	8.1	8.4	49.9	47.1	48.5	39.1	38.3	38.7
2010/11	-	-	10.2	-	-	46.2	-	-	30.4
Urban									
1996	6.4	4.1	5.3	61.0	55.5	58.4	35.1	33.6	34.4
1998	9.8	7.2	8.5	42.1	38.9	40.5	32.8	28.7	30.7
2000	7.0	5.8	6.4	44.2	44.7	44.4	26.7	27.4	27.0
2004	6.9	6.0	6.5	31.1	27.9	29.6	21.5	20.0	20.8
2010/11	-	-	5.7	-	-	31.5	-	-	16.3

Source: Author's computation from WMS 1996, 1998, 2000, 2004 and, EDHS 2011

The 2004 WMS shows that (see Table 3.14 and 3.15) overall 46.9% of the total numbers of children below 59 months of age were stunted. Still high, this represents a substantial improvement over the rates of stunting observed in 1996 (65.7%). There is a significant difference in the prevalence of stunting in rural and urban areas, where the highest proportion being in rural areas than in urban areas, in all the survey periods. While stunting has fallen in both rural and urban areas, it has fallen much faster in urban than in rural areas. Comparing the proportion of stunting among regions shows, it has declined in all regions between 2000 and 2004. The highest proportion of stunting has been observed in Amhara region 58.3% whereas the lowest was seen in Addis Ababa accounting for 23% in 2004.

In 2004, 8.6 % of children less than 59 months of age are wasted, showing no major differences by gender. But unlike stunting, there has been no meaningful change in this indicator of malnutrition since 1996. In fact, the decline was after an increase of 31.5 % in the previous five years and the index declined only by 13.5% during the five year period between 2000 and 2004. Despite this, the difference between the proportion of wasted children in rural and urban areas is

[6] Results of 2011 are not directly comparable with the previous years.

small. Decomposing this index in regions shows, between 2000 and 2004 wasting has increased in Tigray, Afar, Harari, Addis Ababa and Dire Dawa whereas it has decreased in Amhara, Oromia, Somali, Benishangul-Gumuz and SNNP regions. Even though, wasting has subtly increased in Addis Ababa in 2004 over 2000, Addis Ababa is still the region where the index is the lowest 5.4%, whereas, Dire Dawa is the region where the index is overwhelmingly high accounting for 42%.

In 2004, prevalence of low weight for age (underweight) among all children is 37.1%. This, too, signals extensive levels of malnutrition and is more prevalent in rural areas (38.7%) than in urban areas (20.8%). In 2004, the proportion of underweight children has declined in all regions, except Afar. The highest level of underweight children is found in Oromia region, whereas, Addis Ababa is still the region where underweight is low.

3.2. Analysis and Discussion

As discussed earlier, Ethiopia has medium term objective of achieving the MDGs by 2015. This would be achieved by integrating and implementing the MDGs with broad based development policies that would not only enhance economic growth but would also adhere to the principles of an equitable distribution of the benefits from such growth. In the past decade, the Government of Ethiopia designed and implemented two development plans. The first was a three-year plan called Sustainable Development and Poverty Reduction Program (SDPRP), which was executed during the years 2002/03-2004/05. This was followed by the five-year plan: the Plan for Accelerated and Sustained Development to End Poverty (PASDEP) which covered the period between 2005/06 and 2009/10. And now, the country is implementing the Growth and Transformation Plan (GTP), which will last in the coming five years from 2010/11.

As stipulated in the strategic pillars of PASDEP, it is imperative to have an accelerated and sustained economic growth in order to tackle the daunting poverty challenges faced by the country and to improve the livelihoods of people (MoFED, 2006). Knowing these objectives, enormous development efforts have been exerted in key sectors. As a result, the Ethiopian economy has witnessed a sustained, broad based and double-digit growth for the last eight years (MoFED, 2012).

During the last eight years the country has experienced continuous economic growth (see Table 3.1). In these years, the incidence of poverty and economic growth has negative relationship. When the country experienced a high economic growth, the incidence of poverty declined at a faster rate (compare Table 3.1 and figure 3.2). According to OECD/AFDP 2002, in 1999/2000 Ethiopia has registered a real GDP growth rate of only 4.2%, mainly due to the border conflict with Eritrea. During the same year, the incidence of poverty was 44.2%. The economy, however, rebounded in 2004/05 and 2010/11, and registered 12.6% and 11.4%, respectively, real GDP growth rate, thereby dropping the national poverty headcount to 38.7% and 29.6%, respectively, during the same year.

The decline in the incidence of poverty is not limited at the national level. All regions have experienced decline in the headcount index. It has also declined in both rural and urban areas

from 45.4% and 36.9%, respectively, in 1999/2000 to 30.4% and 25.7%, respectively, in 2010/11.

Economic growth alone cannot result in reduction of poverty. The nature of growth and how incomes are distributed are the main instruments of reducing poverty. The governments increased spending on social and pro-poor sectors such as education and health has led to a decline in the incidence of poverty (see Table 3.2). According to Teshome 2012, the Ethiopian government spending on non-productive sectors like defense has declined from 3% in 2004/05 to 1.1% in 2010/11 to the total government expenditure.

Just like the relationship between the trend in economic growth and incidence of poverty, the trend of government spending on pro-poor sectors and the incidence of poverty has also negative relationship (compare Table 3.2 and figure 3.2). Comparing spending on pro-poor sectors and the incidence of poverty shows that, a 55.1% increase on pro-poor spending has resulted in a 32.2% decline in the incidence of poverty in 2009/10 over 2001/02 period. An average annual increase of 6.1% in the pro-poor spending has resulted in 3.6% average annual decline in the incidence of poverty, during the same period.

Economic development is multidimensional process of reorganization and reorientation of the entire economic system for improving living standard. It is something beyond economic growth. Economic growth indicates the change in the quantities of goods and services. But economic development shows the change in quantity of output and at the same time change in the living standard. One of the measurements of economic development is Human Development Index (Teshome, 2012). According to the UNDP, the HDI in Ethiopia increased from 0.250 in 2000 to 0.328 in 2010. During the eleven years, that is between 2000 and 2010, the HDI increased from 0.287 to 0.328, an increase of 31% or average annual increase of about 2.8% (see Table 3.3).

The decline in the poverty incidence and also the growth in the HDI value is the result of the economic growth that averaged 11.4% over the past eight years (see Table 3.1) and the increasing investment on social development and infrastructure. The road network has increased from 3,087 Km in 2001 to 48,800 Km in 2010, access to telecom services within 5km of radius improved from 13% of the population in 2004/05 to 62.14% in 2010, the number of towns and rural villages with access to electric power has also increased from 648 in 2004/05 to 5,163 in

2010. Education, as a means for social development, has been receiving the lion share of spending accounting for an average 20.12% of government expenditure between 2001/02 and 2009/10.

In line with the decline in the incidence of poverty, the depth of poverty (the poverty gap) has also declined. Nationally, the resource deficit that existed to eliminate poverty in 1995/96 was 12.9% but this has declined to 7.8% in 2010/11. The decline has also been observed in both urban and rural areas from 9.9% and 6.9%, respectively, to 13.4 and 8%, respectively, during the same period. Just like the case in the incidence of poverty, the decline in poverty gap can be attributed to the increased and sustained economic growth and the ever growing trend in poverty oriented expenditures.

As discussed in theoretical literature part, by squaring the poverty gap, improvements in the resources to the poorest individual count most, since they are the ones for whom the initial resource gap is largest. The resource gap that is needed to be filled to get the poorest of the poor out of poverty, as expressed by the poverty severity index, has increased in 2010/11 when compared with the 2004/05 index. The increase in the poverty severity can be attributed with the increase in consumption inequality and continuous deterioration of GDP per capita from 10.7% in 2003/04 to 6% in 2008/09 (see figure 3.1and 3.4). This can suggest that, even though increased growth has been registered and investments on pro-poor sectors have hiked up, still the resource that should be channeled to free the poorest of the poor from the yoke of poverty is growing.

However, one can ask here the continuality of the progresses made? Even though, the share of spending on pro poor sectors from the total government budget has increased, the national budget is highly dependent on external assistance and loan, leaving the fate of the country and the poor be dependent on the blessing of foreign donors and agencies. According to FDRE 2001 and 2011, for example, out of the total government budget, 5,135,230,900 ETB or 34.7% in 2001 and 28,055,502,300 ETB or 23.8% in 2011 were obtained through external assistance and loan. Any decision by donors to seize assistance to the country can make many vulnerable to slip back again to poverty.

Despite the increased pro-poor investments and the remarkable progress observed in halving the proportion of the poor from 44.2% in 1999/2000 to 29.6% in 2010/11, still the problem of consumption inequality remains unchanged. Inequality in rural areas is low and remained almost the same during the 1995/96-2010/11 period, making it more of urban phenomenon. The low level of inequality is consistent with the overall picture of Ethiopia as a very poor country, with a low per capita income. In addition, the egalitarian land holding system might have contributed to a more equal income distribution in rural Ethiopia (Devevuex, Teshome, & Sabates-Wheeler, 2005). However, urban inequality has been on a constant rise till 2004/05, the gini coefficient reaching 0.44 from 0.34 in 1995/96. According to MoFED 2012, the increasing trend of urban inequality reverted and reached 0.371 in 2010/11 mainly because of the urban focused development activities carried out in the country including urban infrastructural development (road, private and condominium housing construction), promotion of labor intensive activities (use of cobblestone to construct urban roads), promotion of micro and small scale enterprises via the provision of training, credit and business development support, and the distribution of subsidized basic food items to urban poor in times of crisis over the past five years.

Consumption inequality in regions follow similar trend with the national inequality. The gini coefficient has increased in all regions in 2004/05 over 1995/96, except in Afar and Amhara where it declined by 17.5% and 3.6%, respectively, and Somali where it remained constant (see Table 3.10).

Comparing the national statistics issued by the Ethiopian Statistical Authority on the Household, Income and, Consumption Expenditure surveys with World Bank statistics shows contrasting results (see figure 3.4, 3.5 and, Table 3.9). The World Bank data shows that the share of the poorest quintile in national consumption is increasing whereas the share of the richest quintile is declining, between 1995/96 and 2004/05. The decline in consumption inequality can be seen from the Lorenz curve where the 2004/05 and 1999/2000 curves get closer to the diagonal line. However, the national data by CSA suggests a subtle change inequality.

Employment and income derived from employment are the main means of reducing poverty. As the employment potential of the economy expands, the greater the likelihood of reducing poverty by creating a means to make a living for the poor. Sustained reduction in poverty requires

enhancing the employment content of growth. As can be seen from figure 3.6 and Table 3.11, there is an increasing employment to population ratio both nationally and in urban areas.

The poverty reducing impact of employment depends on the quantity of employment (i.e. the number of hours and days a person is able to work) and the rate of return to labor, and the latter depends on factors such as human capital, physical assets, natural capital such as land, and other factors. This means that both the quantity of employment and earning per unit of employment are crucial for improved wellbeing. Employment expansion without a corresponding creation of adequate income will just produce "working poor" (MoFED, 2012). With a total employment to population ratio of 76.6%, the proportion of the working poor or the proportion employed people living below the international poverty line has declined to 34.9% in 2004/05 from 50.9% in 1999/2000. This decline in the proportion of the poor has also been accompanied with a decline in the proportion of vulnerable employment to total employment (see figure 3.7).

Workers in vulnerable employment, defined as the sum of own-account workers and contributing family workers, are less likely to have formal work arrangements, and are therefore more likely to lack elements associated with decent employment such as adequate social security and recourse to effective social dialogue mechanisms. Vulnerable employment is often characterized by inadequate earnings, low productivity and difficult conditions of work that undermine workers' fundamental rights (ILO, 2010). Generally vulnerable employment has a decreasing trend in Ethiopia. However, between 1999 and 2006 the trend is characterized by sharp increases declines (see figure 3.7). However, such trends in vulnerable employment should be interpreted in combination with other labour market indicators such as unemployment and working poverty. And according to MoFED 2012, it is only after 2007/08 onwards that data on national employment and unemployment are available.

The pattern of investment and the resultant employment creation has also important implications in terms of regional variances in poverty reduction. According to MoFED 2012, in 2010/11 a total of 814,111 jobs were created as a result of private investment, both domestic and foreign. However, investments show bias to regions where Addis Ababa and Oromia together accounted for 71% and 83% of the total domestic and foreign investment, respectively, during the same year. Such uneven distributions can cause disparities among regions in terms of employment

creation and hence, poverty reduction. However, since traditional agriculture is the main source of employment and livelihood in the country, the effect of such uneven distribution of investment and the resultant employment has not been felt.

According to Food and Agriculture Organization of the United Nations 2011, in many developing countries like Afghanistan, Ethiopia, Uganda, Malawi and many others increase in international food prices is a key factor causing undernourishment. These countries, including Ethiopia, were exposed to higher international prices for food commodities, were typically without sufficient stock, and did not have the budgetary resources adequately protect the food security of the poor. These countries bore the brunt of the crisis. Many of them imported far less on a commercial basis than was needed due to shortage of foreign exchange, and were forced to appeal for external assistance and food aid.

The international rise in food prices has manifested its impact in Ethiopia also. Even though, the proportion of the food poor has declined nationally, in both rural and urban areas, and in all regions, except Amhara mainly because of increase in the proportion of rural food poor, the food poverty gap and severity has worsened. To stabilize the effects of the 34.9% and 44.3% national food inflation in 2007/08 and 2008/09, respectively, the Ethiopian government sold about 190,000 tons of wheat from its grain reserve to about 800,000 urban poor and imported 150,000 tonnes of wheat in August/September 2008 to meet demand in urban areas, while WFP and non-governmental organizations channeled about 200,000 tonnes of food to the increasing number of people requiring food assistance (FAO, 2011). Due to government and donors involvement, both the food poverty gap and severity for urban areas has declined by 42.5% and 3.83%, respectively, between 1999/2000 and 2010/11. However, for rural areas both food poverty gap and severity has increased by 7.8% and 31.6%, respectively, during the same period, leaving the national food poverty gap almost unchanged and severity to rise by 17.9%. Such a tremendous rise in the severity index of the rural poor suggests that it is mainly the poorest of the poor that bore the brunt of the hike in the price of food items (see Table 3.12 and 3.13).

According to Teshome 2012, in 2009, the Ethiopian Food Security Program (FSP) has provided predictable cash and/or food transfers for six months each year for 7.56 million chronically food insecure people in eight regions and 290 districts, up to US$ 137 based on 2009 prices. Also a nationwide program, the Protection of Basic Services (PBS) project has helped improve the lives

of more than 70 million rural Ethiopians. Despite these efforts, given the drought and substantial increase in food prices, stagnation in the depth and severity of food poverty has been witnessed. As many rural households are net buyers of food, it is likely that rising food prices may have negatively affected the food poverty situation of the people in the country, especially in rural areas (FAO, 2011).

Furthermore, even if the rising trend of the food inflation has been reverted and dropped to 15.7% in 2011, based on the joint government and humanitarian partners' requirement document released on the 12th of January, about 3.2 million people will require food assistance in the first half of 2012 mainly because of drought and low agricultural productivity. The highest needs are identified in Somali and Oromia regions where 34% of the total population of each region is estimated to be in need (Famine Early Warning Systems Network, 2012).

In line with the decline in the proportion of the food poor, the proportion of the population below minimum level of dietary energy has declined during the 1990-2008 (see figure 3.8). The prevalence of underweight in children below the age of five, which is the index of stunting i.e. which shows chronic malnutrition and wasting i.e. which shows acute malnutrition, has also a declining trend between 1994 and 2004 period. However, knowing only 2.3 percent of the children fall below minus 2 standard deviations below the median weight for age of the international reference population, the 28.7% of underweight prevalence in 2010/11 shows that Ethiopia still has a long way to go (see Table 3.15).

Do higher incomes reduce child malnutrition in Ethiopia? According to MoFED 2008, combining the consumption quintile and the percentage of the malnourished allows some insights into this question. All the anthropometric indicators, i.e. wasting, stunting and underweight, show some responsiveness to income. Considering the proportion of stunting in 2004, as evidence, it shows some responsiveness to income with prevalence falling from 56.3% for the poorest quintile to 44.1% in the richest quintile. The same applies to the proportion of children who are underweight, where the proportion falls to 32% in the richest quintile from 45.7% in the poorest quintile (see annex 2).

As explained in section 3.1.1.1, since 2003/04 Ethiopia continued to register sustained and fast growth recording over 11%. Gross domestic product (GDP) growth in 2010/11 remained as high

as 11.4%. Growth was driven by the service sector 12.9%, followed by the industrial 10.8% and agricultural 10.2% sectors. However, according to MoFED 2010, the Ethiopian economy and the poor in Ethiopia are extremely vulnerable to external shocks that may include climate change and the global price of exports and imports. These could be taken as challenges on the sustainability of growth.

According to Africa Economic outlook 2012, following a drop in merchandise exports in 2009 due mainly to the global economic crisis hitting demand for key traditional export commodities, exports began to bounce back slowly in 2010. Imports remained strong in 2010 at 27.2% of GDP. The government projects this figure will grow to between 30 and 35% of GDP per annum by 2015. The result is a large trade and balance-of-payment deficit. The current account balance is expected to worsen from about minus 6.4% of GDP in 2010/11 to minus 11.9% in 2011/12.

Furthermore, according to MoFED 2010, the International Monetary Fund calculations on the effects of the changing global economic environment on Ethiopia's balance of payment in 2009/10 yield an estimated adverse impact in the range of $260-300 million. Still proving Ethiopia like many other developing countries continues to be affected by global challenges. The global economic crisis and climate change are among the many global challenges, in addition to the rise in food and oil prices, which have affected the poverty reduction efforts of the country.

According to Food and Agriculture Organization of the United Nations 2011, in many developing countries like Afghanistan, Ethiopia, Uganda, Malawi and many others increase in international food prices is a key factor causing undernourishment. These countries, including Ethiopia, were exposed to higher international prices for food commodities in 2009, were typically without sufficient stock, and did not have the budgetary resources adequately protect the food security of the poor. The international hike in food prices has caused soaring food inflation of 44.3% in 2009 which in turn worsened the food insecurity.

The other main challenge to the poverty eradication effort is inflation. According to African Economic Outlook 2012, in 2010, although growth remained strong, macroeconomic management was problematic because of the rising level of inflation and a sharp depreciation of the national currency. The government devalued the national currency by 20% in 2010 with the

aim of boosting exports and raising the level of external reserves. The government intends to use monetary policy to keep inflation below 10% starting in 2011 and through the duration of its five-year Growth and Transformation Plan.

Agriculture, being heavily rain fed, has also serious consequences for poverty reduction. Unforeseen weather changes often cause outbreaks of disease and recurring droughts in Ethiopia. The sector being extremely sensitive to unpredictable climatic variations, climate variability in Ethiopia, could be a potential threat to the achievement of those goal one targets related to food. Adverse climate change with its effect on drought and, hence, in terms of drowning livelihoods, small scale subsistence farmers and pastoralists are the most vulnerable groups.

The challenge of vulnerability has also a micro dimension. Poverty studies in the country show that even if the poor are able to escape poverty for a substantial period of time, they are extremely vulnerable to slip back into poverty (MoFED, 2010). This is especially true aftershocks, such as drought and the death of the head of the household.

Despite these, the commitment of the government on reducing poverty has continued to be reflected in the Growth and Transformation Plan (GTP) also. The plan is expected to reduce the incidence of poverty from 29 percent in 2010 to 22 percent in 2015, hence, achievement of halving the proportion of the population living below the poverty line from 48% in 1990. During the plan years, the country is expected to achieve an average of 11% economic growth with low base scenario and 14.9% with high base scenario.

The government has plans to allocate more resource on accelerating economic development. For the five-year GTP period as a whole, the sum of budgetary government spending and off-budget spending by public enterprises is programmed to reach Birr 1.26 trillion, or an average of 41 percent of GDP per year over five years (Teshome, 2012). The objectives of the plan are to

- Attain high growth within a stable macroeconomic framework;
- Achieve the MDGs in the social sector; and
- Establish a stable democratic and developmental state.

To accomplish these objectives, the GTP identifies the following strategic pillars: (i) sustain rapid growth; (ii) emphasize agriculture; (iii) promote industrialization; (iv) investment in

infrastructure; (v) enhance social development; (vi) strengthen governance; and (vii) empower youth and women.

Chapter Four

4. Conclusion and Recommendation

4.1 Conclusion

For the full realization of the extreme poverty and hunger eradication goal, Ethiopia is expected to halve the proportion of the poor and the proportion of those who suffer from hunger by 2015, and also be able to provide full, productive employment for all.

In 1990 the proportion of the population living below the national poverty line was 48%. To realize the first target, this proportion has to be halved to 24% by 2015. To date, nationally this proportion has dropped to 29.6%. The urban and rural headcount has also declined to 25.7% and 30.4%, respectively. Statistics also show that the poverty headcount is lower than 32% in all regions. With average annual decline rate of 3.6%, it is expected that the proportion of the poor will be halved by 2015. However, this decline in the proportion of the poor has not been accompanied by a decline in the poverty severity index. The national poverty index has increased in 2010/11 when compared with the 2004/05 index, mainly due to the substantial rise in rural areas, indicating the rural poor are getting poorer.

Regarding creating decent employment for all, the employment to population ratio has reached 76.6% in 2004/05 and the urban employment to population ratio has also reached to 48.2% in 2010. The increase in employment to population ratio has been accompanied by decrease in the proportion of the working poor and the proportion of vulnerable employment. However, knowing 56.1% and 34.9% of the employed are in vulnerable employment and are living below the poverty line, respectively, a long way is remaining to the achievement of the second target.

In terms of halving the proportion of the population who suffer from hunger, good progress has been observed. The proportion of the population below minimum level of dietary energy consumption has dropped to 41% in 2008 from 69% in 1990. Given the annual average decline rate of 1.6% will continue, this target is achievable by 2015. The proportion of underweight children under the age of 5 is 28.7%. Even though the proportion of underweight children has declined, still high prevalence exists as only 2.3% of children fall below two standard deviation of the median weight for age of the international reference population in a well-nourished society. These progresses are made as the result of the decline in the proportion of the food poor.

The increased and sustained growth registered over the past years and the increase in the pro poor investments can take the credits to the achievements made above. The sustained continuation of this growth and spending patterns are the prerequisite for the achievement of the extreme poverty and hunger eradication goal by 2015. However, the very high dependence of the government budget on foreign assistance and loan, ever growing trade deficit, vulnerability to external shocks including climatic change and the global price of imports and exports, rain fed traditional agriculture and, limited capacity of the government to cope up with shocks and droughts and, soaring inflation rates makes the achievements made unsustainable and make the many vulnerable to slip back to poverty again. The following are policy recommendations.

4.2 Recommendations

- ✓ The achievements made so far are the result of the sustained growth registered and the increasing investment on social services and infrastructure such as education, health, water, road etc. So in order for the current trend of poverty reduction to continue, both the strong economic growth and pro poor investments shall continue.
- ✓ Macroeconomic management has proved to be problematic because of growing trade deficit and soaring inflation. This can drag down the non-poor below the poverty line, especially those with fixed income. This can also affect the life of rural Ethiopians, since many farmers are net buyers of food for consumption. So, the already started monetary stabilization of inflation through the contraction of credit and money supply growth should be further strengthened.
- ✓ Together with the existing export oriented strategy, some sort of import substitution strategy should be introduced with the aim of pulling back the trade deficit. Such decline in trade deficit can help the government build up its foreign exchange reserve which in turn makes it less dependent on foreign assistance for its projects. Such independence in commanding resources can free many from vulnerability to slip back to poverty as a result of a possible seizure of assistance by foreign donors and agencies or similar cases. The establishments of industries that are labour intensive, have broader linkage with the rest of the economy, use agricultural products as input and, that are export oriented and import substituting are critical in minimizing the trade deficit.
- ✓ Since agriculture is the main source of employment, till now the uneven distribution of investment and the resultant employment creation has not created in regional difference

in terms of employment to population ratio. However, as it has been articulated in the GTP and in the previous development plans, accelerated and sustained industrial development is a fundamental policy direction for the reduction of poverty. Regional balance in terms of investment attraction and, hence employment creation, should be ensured by making basic infrastructures such as road, water, communication and power facilities available in each corner of the country so as to narrow down possible regional imbalances.

- ✓ Since agriculture in Ethiopia is mainly rain fed and highly susceptible to drought and, farmers are net buyers of food, there is a need for structural transformation in the agricultural sector. From traditional subsistence agriculture to labour intensive commercial agriculture. Since commercial agriculture uses modern technology and larger land size, it boosts production and productivity. It is the limited production and productivity in the agriculture sector that keeps many poor, vulnerable and dependent on assistance to make a living. In addition to the boosting up of production and productivity, commercial agriculture:
    i. Gives a chance for the creation of decent employment opportunity, thereby creating a chance to minimize the proportion of those in vulnerable employment and working poor.
    ii. The increased productivity can halt rising food prices as a result of demand pull inflation.
    iii. Gives a means to better control in international food price shocks.

Since large commercial farms are covered by insurance and deploy scientific methods, a better means can be created with coping droughts and other environmental hazards.

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Annex 1: The Official List of the Millennium Development Goals

Millennium Development Goals (MDGs)	
Goals and Targets (from the Millennium Declaration)	**Indicators for monitoring progress**
Goal 1: Eradicate Extreme Poverty and Hunger	
Target 1.A: Halve, between 1990 and 2015, the proportion of people whose income is less than one dollar a day	1.1 Proportion of population below $1 (PPP) per day 1.2 Poverty gap ratio 1.3 Share of poorest quintile in national consumption
Target 1.B: Achieve full and productive employment and decent work for all, including women and young people	1.4 Growth rate of GDP per person employed 1.5 Employment-to-population ratio 1.6 Proportion of employed people living below $1 (PPP) per day 1.7 Proportion of own-account and contributing family workers in total employment
Target 1.C: Halve, between 1990 and 2015, the proportion of people who suffer from hunger	1.8 Prevalence of underweight children under-five years of age 1.9 Proportion of population below minimum level of dietary energy consumption
Goal 2: Achieve Universal Primary Education	
Target 2.A: Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling	2.1. Net enrolment ratio in primary education 2.2. Proportion of pupils starting grade 1 who reach last grade of primary 2.3. Literacy rate of 15-24 year-olds, women and men
Goal 3: Promote Gender Equality and Empower Women	
Target 3.A: Eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels of education no later than 2015	3.1. Ratios of girls to boys in primary, secondary and tertiary education 3.2. Share of women in wage employment in the non-agricultural sector 3.3. Proportion of seats held by women in national parliament
Goal 4: Reduce Child Mortality	
Target 4.A: Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate	4.1. Under-five mortality rate 4.2. Infant mortality rate 4.3. Proportion of 1 year-old children immunized against measles
Goal 5: Improve Maternal Health	
Target 5.A: Reduce by three quarters, between 1990 and 2015, the maternal mortality ratio	5.1. Maternal mortality ratio 5.2. Proportion of births attended by skilled health personnel
Target 5.B: Achieve, by 2015, universal access to reproductive health	5.3. Contraceptive prevalence rate 5.4. Adolescent birth rate 5.5. Antenatal care coverage (at least one visit and at least four visits) 5.6. Unmet need for family planning
Goal 6: Combat HIV/AIDS, Malaria and Other Diseases	
Target 6.A: Have halted by 2015 and begun to reverse the spread of HIV/AIDS	6.1. HIV prevalence among population aged 15-24 years 6.2. Condom use at last high-risk sex 6.3. Proportion of population aged 15-24 years with comprehensive correct knowledge of HIV/AIDS 6.4. Ratio of school attendance of orphans to school attendance of non-orphans aged 10-14 years
Target 6.B: Achieve, by 2010, universal access to treatment for HIV/AIDS for all those who need it	6.5. Proportion of population with advanced HIV infection with access to antiretroviral drugs
Target 6.C: Have halted by 2015 and begun to reverse the incidence	6.6. Incidence and death rates associated with malaria

of malaria and other major diseases	6.7. Proportion of children under 5 sleeping under insecticide-treated bed nets 6.8. Proportion of children under 5 with fever who are treated with appropriate anti-malarial drugs 6.9. Incidence, prevalence and death rates associated with tuberculosis 6.10. Proportion of tuberculosis cases detected and cured under directly observed treatment short course
Goal 7: Ensure Environmental Sustainability	
Target 7.A: Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources Target 7.B: Reduce biodiversity loss, achieving, by 2010, a significant reduction in the rate of loss	2.1. Proportion of land area covered by forest 2.2. CO2 emissions, total, per capita and per $1 GDP (PPP) 2.3. Consumption of ozone-depleting substances 2.4. Proportion of fish stocks within safe biological limits 2.5. Proportion of total water resources used 2.6. Proportion of terrestrial and marine areas protected 2.7. Proportion of species threatened with extinction
Target 7.C: Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation	2.8. Proportion of population using an improved drinking water source 2.9. Proportion of population using an improved sanitation facility
Target 7.D: By 2020, to have achieved a significant improvement in the lives of at least 100 million slum dwellers	2.10. Proportion of urban population living in slums
Goal 8: Develop a Global Partnership for Development	
Target 8.A: Develop further an open, rule-based, predictable, nondiscriminatory trading and financial system Includes a commitment to good governance, development and poverty reduction – both nationally and internationally Target 8.B: Address the special needs of the least developed countries Includes: tariff and quota free access for the least developed countries' exports; enhanced programme of debt relief for heavily indebted poor countries (HIPC) and cancellation of official bilateral debt; and more generous ODA for countries committed to poverty reduction Target 8.C: Address the special needs of landlocked developing countries and small island developing States (through the Programme of Action for the Sustainable Development of Small Island Developing States and the outcome of the twenty-second special session of the General Assembly) Target 8.D: Deal comprehensively with the debt problems of	Some of the indicators listed below are monitored separately for the least developed countries (LDCs), Africa, landlocked developing countries and small island developing States. Official development assistance (ODA) 8.1. Net ODA, total and to the least developed countries, as percentage of OECD/DAC donors' gross national income 8.2. Proportion of total bilateral, sector-allocable ODA of OECD/DAC donors to basic social services (basic education, primary health care, nutrition, safe water and sanitation) 8.3. Proportion of bilateral official development assistance of OECD/DAC donors that is untied 8.4. ODA received in landlocked developing countries as a proportion of their gross national incomes 8.5. ODA received in small island developing States as a proportion of their gross national incomes Market access 8.6. Proportion of total developed country imports (by value and excluding arms) from developing countries and least developed countries, admitted free of duty 8.7. Average tariffs imposed by developed countries on agricultural products and textiles and clothing from developing countries 8.8. Agricultural support estimate for OECD countries as a percentage of their gross domestic product 8.9. Proportion of ODA provided to help build trade capacity

developing countries through national and international measures in order to make debt sustainable in the long term	Debt sustainability 8.10. Total number of countries that have reached their HIPC decision points and number that have reached their HIPC completion points (cumulative) 8.11. Debt relief committed under HIPC and MDRI Initiatives 8.12. Debt service as a percentage of exports of goods and services
Target 8.E: In cooperation with pharmaceutical companies, provide access to affordable essential drugs in developing countries	8.13. Proportion of population with access to affordable essential drugs on a sustainable basis
Target 8.F: In cooperation with the private sector, make available the benefits of new technologies, especially information and communications	8.14. Telephone lines per 100 population 8.15. Cellular subscribers per 100 population 8.16. Internet users per 100 population

Source: United Nations 2008, Official List of MDG indicators.

Annex 2: Percent of children below 5 years Old who are wasted, stunted and, underweighted by consumption quintile and sex.

Consumption quintile	Wasting						Stunting						Underweight					
	Both		Boys		Girls		Both		Boys		Girls		Both		Boys		Girls	
	2000	2004	2000	2004	2000	2004	2000	2004	2000	2004	2000	2004	2000	2004	2000	2004	2000	2004
1st	10.2	16.4	11.7	15.9	8.6	16.9	58.8	56.3	60.9	56.4	56.5	56..2	47.0	45.7	48.2	44.9	45.7	46.5
2nd	10.2	15.4	10.9	15.4	9.4	15.5	57.1	51.8	59.1	51	55.1	52.6	46.4	42	44.6	42.8	46.1	41.1
3rd	10.7	14.6	12.0	15.1	9.3	14.1	57.0	52.2	60.2	54.6	53.7	49.9	45.6	41.4	48.4	40.2	42.8	42.5
4th	8.8	13.6	8.8	13.4	8.7	13.9	56.8	48.2	56.2	50.8	57.5	45.5	44.7	37.2	44.3	39.5	45.2	34.8
5th	8.0	13.8	7.5	13.1	8.5	14.6	54.3	44.1	54.5	44.4	54.0	43.8	41.3	32	42.2	31.7	40.4	32.3

Source: MoFED, 2008.

Declaration by the Candidate

The thesis “Assessing Progress in Ethiopia towards Eradication of Extreme Poverty and Hunger as part of Goal One of the Millennium Development Goals” is my original wok. It has not been presented for a degree in any university and that all sources of materials used for the thesis have been duly acknowledged.

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