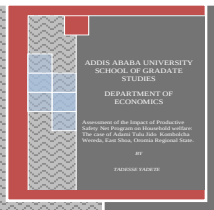


ADDIS ABABA UNIVERSITY SCHOOL OF GRADATE STUDIES

DEPARTMENT OF ECONOMICS

Assessment of the Impact of Productive Safety Net Program on Household welfare: The case of Adami Tulu Jido Kombolcha Wereda, East Shoa, Oromia Regional State.

BY

TADESSE YADETE

June, 2008
Addis Ababa, Ethiopia

ADDIS ABABA UNIVERSITY

SCHOOL OF GRADATE STUDIES

Assessment of the Impact of Productive Safety Net Program on Household welfare: The case of Adami Tulu Jido Kombolcha Wereda, East Shoa, Oromia Regional State.

A thesis submited to the School of Graduate Studies, Addis Ababa University, Facuality of Business and Economics, Department of Economics, in Partial Fulfillment of the requirement for the Degree of Masters of Science in Economic Policy Analysis.

BY: TADESSE YADETE

June, 2008

Addis Ababa, Ethiopia

SCHOOL OF GRADATE STUDIES

Assessment of the Impact of Productive Safety Net Program on Household welfare: The case of Adami Tulu Jido Kombolcha Wereda, East Shoa, Oromia Regional State.

BY:

Tadesse Yadete

Facuality of Business and Economics

Approved by Board of Examiners:

1. Chairmen, Graduate Committee	**Signature**
2. Advisor	**Signature**
3. Internal Examiner	**Signature**
4. External Examiner	**Signature**

Acknowledgments

First for most I acknowledge, with many thanks, Dr. Mulat Demeke my academic advisor, for his encouragement to get my writing on such a vast, complex and tiresome, but very interesting, relevant and current issue, for tireless, constructive and valuable suggestions in correcting and advising my works from draft proposal up until the end of the thesis work.

The following agencies also deserve gratitude in providing me generous assistance in gaining access to secondary data. CSA, DPPC office, Regional Food Security Coordination office, East Showa Rural and Agricultural Development, Planning and Economic Development Department and East Showa Zonal Administration office. In general I am grateful to the regional, Zonal and Wereda level government offices and officials for their understanding and cooperation during the field work.

I am particularly grateful to my parents who persistently owned me advice and assistances in almost every respect during the course of this study and my stay at the university. This research was largely made possible by financial assistance from Addis Ababa University and deserves my thanks.

My gratitude and thanks also go to different personalities and colleagues especially, *Ato Lechisa Idosa, Ato Teshoma Seyoum, Ato Getahun Bedhane, Ato Eshetu Ararsa, Ato Berhanu Dibebau, Ato Tesfaye Yadete* and many others for their constant encouragement and friendly assistance. My thanks particularly go to *Ato Mekonen Bekele* who helped me in all aspects of this research.

I am also very greater full to the department of economics and its entire staff for all kinds of facilitation in the process of carrying out this research and my stay in the department for the past two years. Furthermore, thanks also goes to the heads of households, key informants and all those involved in the group interviews and discussions.

TABLE OF CONTENTS ***PAGE***

List of Tables

Page

List of Figures

List of Appendices

Acronyms

ATJKARDO	Adami Tulu Jido Kombolcha Agriculture and Rural Development Office
AU	African Union
BOARD	Bureau of Agricultural and Rural Development
CA	Christian Aid
CSA	Central Statistical Authority
DA	Development Agent
DFID	Department of federation international Development
DPPC	Disaster Prevention and Preparedness Communion
DPPP	Disaster Prevention and Preparedness Policy
EGS	Employment Generation Schemes
FAO	Food and Agricultural Organization
FFSCB	Federal food security Coordination Bureau
FFW	Food for Work
FGFSP	Federal Food Security Project
FSP	Food security Program
GDP	Gross Domestic Product
GNP	Gross National Product
GoE	Government of Ethiopia
HH	Household
IFPRI	International Food Policy Research Institution
MDG	Millennium Development Goal
MoFED	Ministry of Finance and Economic Development
NPDPM	National policy on Disaster prevention and Management
OESPOs	Oromia economic Study Project Office
OFSP	Other Food Security Programme
PA	Peasant association
PSNP	Production Safety Net Program
PSEPORS	Physical and socio-economic Profile of Oromia Regional state
SCF	save the Children Fund
SNNPRS	Sothern Nation and Nationalities People Regional State
TV	Television
WB	World Bank
WFP	World Food Program
WFS	World Food Summit
UNFPA	United Nation Fund for Population Agency
USAID	United state Agency for International Development
US	United State

ABSTRACT

This study reports both theoretical and empirical findings on the impact of productive safety net in Adami Tulu Jido Kombolcha wereda, East Shoa Zone of Oromia regional state. The main objective of this study is to assess the impacts of Productive safety net transfers on household welfare. The analysis was made using the household data collected from three kebeles (Chetu Getu, Werja Weshgula and Hurufa Lole).

The study looked at the household characteristics and the descriptive result shows that there are interesting differences in the composition of PSNP beneficiary and non-beneficiary households, which suggest that certain demographic criteria might have been used in targeting households for the PSNP. Thus, female-headed and older-headed households are generally more vulnerable and more likely to need support than male-headed households.

The probit regression analysis result shows that among other variables included in the study household labour, beneficiary dummy, education dummy, ox holding, number of oxen and age have been significant in determining household welfare. As it was hypostasized beneficiary, ox holding and household labour are positively related to the probability of increase in welfare. Age, education dummy and number of oxen negatively and strongly related to changes in welfare over the last year. Therefore, the probability of improving welfare of the respondents is significantly affected by households being beneficiary of safety net program.

CHAPTER 1. INTRODUCTION

1.1 Background

1.1.1 Global and Africa's Food Crisis

Food insecurity associated closely with poverty. People living in poverty often cannot produce or buy enough food to eat and so are more susceptible to disease. According to WFS (1996), more than 800 million people in the world do not have enough food to meet their basic needs. About 280 million of these food insecure people live in south Asia, 180 million in sub-Saharan Africa, 240 million in East Asia, and the rest in Latin America, Middle East and North Africa.

Global projection by IFPRI (1997) indicated that developing countries as a whole will double their net imports of cereals up to 2020 reaching about 230mt. The same report indicated that Latin America will most likely not to increase imports but Asia could quadruple imports due to rapid income growth while sub-Sahara Africa will increase imports by 150% due to poor food production. Low-income food deficit countries are with 800 million chronically malnourished people. Their food gap is immense, for example, Asia had 1 million metric tons food gap in 1990, and the same is estimated to be 24 million metric tons in Sub-Sahara Africa by the year 2020.

There was an increasing dependency of sub-Saharan Africa not only food import and food aid but also an increasing share of food aid as a percentage of total imports. The increase in food aid to the region remained well below the average for the low- income countries. The impact of the food aid on food prices in the region is still a subject of study but food aid has been known to dump food prices.

Food and nutrition security are the fundamental challenges to human welfare and economic growth in Africa. Despite increased international attention to the issue of food security as well as increased financial and technical assistance in both the form of food aid and financial support to increase agricultural production and decrease vulnerability, there are a number of undernourished people to rise considerably in recent years. Twenty seven percent of the African population is estimated to be undernourished. It is to be noted that Sub-Saharan Africa countries are the most food insecure areas largely because of their highly variable climatic characteristics, extremely fragile ecosystem, and relatively non diversified economies. Per capita food production in the Sub-Sahara Africa remains almost 20% below the level observed thirty years ago (IFPRI, 2005).

The major reason behind this scenario is related to the poor performance of agriculture in sub-Sahara Africa together with the poor performance of the overall economy, which is manifested in the declining per capital incomes since 1980's. The other reason to the sub-sub Sahara Africa food crisis and the overall poor performance of the economy of the region is related to the accelerated population growth which is evidence by the increase from 2.7% during 1998's to 3% at present (NRI/IFPRI, 1994). Sub Sahara Africa produces less food per person today than it did 30 years ago. The situation in sub –Sahara Africa will deteriorate further. Both the number of poor people and the incidence of poverty are growing in sub-Sahara Africa in general and in the arid zones of the region in particular (NRI/IFPRI, 1994).

1.1.2 Poverty and Productive Safety Net Program in Ethiopia

1.1.2.1 Poverty and Food Security Situation in Ethiopia

In recent years, Ethiopia has experienced an improvement in its economic performance. Over 1993-97 Ethiopian fiscal year, GDP growth averaged about 8 percent per year and inflation remained low. The end of the civil war, economic reform and better economic management contributed to this improved performance, assisted by improved weather conditions. Nevertheless, reported per capita GNP of $110 is one of the lowest in the world and well below the African average. Six out of seven people in the labour force depend on agriculture. High risks in agriculture and limited alternative sources of income result in large fluctuations in individual incomes. The household asset base is limited and safety nets for the poor remain insufficient. In terms of any welfare measure, Ethiopia is a desperately poor country. Life expectancy is estimated at just over 50 years and infant mortality is 118 of 1,000 live births – both are worse than the average for Sub- Sahara Africa (CSA, 1996).

According to World Development Report 1998/99, the poverty level in the country is rather staggering with over 45 percent of the population living under a dollar a day. In such a measure of poverty, the poverty gap is about 12.4 percent, i.e. an average of 12.4 percent below the cut-off figure indicating the depth of poverty. Using two dollars a day poverty line, the proportion of the population living under the poverty line rises to 89 percent with 42.6 percent poverty gap. The same report indicated that the Gini coefficient for Ethiopia for the period 1991-1997 was 40%.

The country also faces a related problem of severer food insecurity that manifests itself in the lowest kilocalorie intake in Africa at about 1845 kilocalories per person per day (Sisay, 2003). This figure is less than the world minimum standard for survival of 2,100 kilocalories and much less than the standard for an adequate diet of 2,400 kilocalories.

It was estimated that the level of poverty in rural Ethiopia has increased from about 53% in 1982 to about 66% in 1992 based on the poverty line of 500 grams of daily per capita consumption requirements or an equivalent annual expenditure of about 1478 Birr (Hadgu, 1995).

Ethiopia is faced with complex poverty, which is broad, deep and structural. The proportion population below the poverty line is 44 percent in 1999/2000 (MoFED, 2002). According to the household income consumption and expenditure survey carried out by the Central Statistics Authority in 1995/96 and again in 1999/2000 the mean per capita consumption expenditure for the year 1999/00 is estimated at 1057 Birr in constant prices of 1995/96. The real per capita consumption expenditure of rural people was 995 Birr and that of urban people 1453 Birr. These levels of real per capita consumption expenditure equivalent to 139,131,and 191 US Dollars at national, rural and urban levels respectively based on the 1999/2000 annual market exchange rates. Poverty incidence was much higher in rural than urban areas. Poverty incidence was much higher in rural than urban areas, the poverty head count indices being 45 and 37 percent, respectively in 1999/2000 (MoFED, 2002).

The food poverty line used in Ethiopia is based on a basket providing 2200 kilocalorie per adult equivalent per day. In 1995/96 present this basket cost Birr 647.8 per year. After adjusting for non-food components, the total poverty line (both food and non-food) was estimated at Birr

1075.0 in 1995/96. The proportion of people in Ethiopia who are absolutely poor during the year 1999/2000 based on the above poverty line was 44 percent.

Table 1.1: Trends in poverty head count indices

Location	1995/96	1999/2000	% change over 1995/96
Rural	47.0	45.0	-4.2
Urban	33.3	37.0	11.1
Total	45.5	44.2	-2.9

Source: Poverty Profile of Ethiopia, MoFED, March 2002.

Households and the people living in them are defined as food poor if the food expenditure per adult equivalent is less than the food poverty line. Using this definition the relative position of rural and urban areas in 1999/2000 appears to be reversed compared to that of 1995/96. In the earlier period, food poverty was higher in rural areas than in urban areas.

Table 1.2: Trends in food poverty head count indices (percent)

Location	1995/96	1999/2000	% change over 1995/96
Rural	47	41	-12.6
Urban	32	47	43.7
Total	45	42	-6.7

Source: Poverty Profile of Ethiopia, MoFED, March 2002

According to Masefield (2001), the majority of the population is sliding from middle wealth status to the lowest categories of well being. Per capita asset are declining and emergency aid may ameliorate the symptoms of food insecurity but does little or nothing to address its root

causes. This deficit in the availability of food is likely worsened in the short to medium term period.

Table 1.3: Estimated of crop production, food aid requirements and needy population, 1995- 2000

Year	Estimated crop production (million MT.)	Revised estimates of food aid requirements (MT)	Revised estimates of needy population(In Millions)
1995	10.2	492,000	4.
1996	11.8	262,000	2.7
1997	8.8	329,000	3.4
1998	11.3	602,000	5.3
1999	10.7	460,000	6.6
2000	8.89	898,936	7.7

Source: Masefield, 2001

Over the past 3 decades, the country had to depend on foreign food aid of massive amount. In 1984/85, which was one of the most sever periods of huge food crisis and famine in the recent history of the country in which about 10 million people had faced critical food shortage (Deselgn,1990). This famine claimed one million people's lives and the country gets out of the problem by means of huge amount of foreign emergency food aid amounting 10million tones.

Even if high levels of rural growth are achieved, Ethiopia will still have a sizable number of food insecure people that are in need of public assistance. Assuming a population growth of 3 percent, for example, Ethiopia needs to grow annually by 4-5 percent to keep the absolute number of the poor and income inequality at the levels of today. As for

estimates of vulnerability in present day in Ethiopia, almost 50 percent of the population are considered to be poor, an additional 27 percent move in and out of poverty, and almost 14 percent who are currently not poor but have a high probability of falling in to poverty in the future with a single large shock (World Bank, 2004).

Rapid population growth and dependence on subsistence rain fed agriculture contribute to poverty and vulnerability. Population density is twice the average for Sub-Saharan Africa, and is greatest in the highlands-where as a result, soil fertility is rapidly declining, and average plot sizes have decreased in many cases below the minimum amount required for subsistence. Dependence on subsistence rain fed agriculture leaves the population of Ethiopia highly vulnerable to weather-mostly low or late rainfall-and terms of trade shocks, such as declining coffee prices.

Measures of rainfall variability across time show that, in any given year, actual rainfall can be above or below the long-term average (calculated over the 33 years b/n 1967-2000) by up to 35 percent. Measures of rainfall inequality across apace are also high, as indicated by the coefficient of variation. These ranged from a low of 18 percent to a high of 81 percent using annual rainfall totals. These measures also suggest that even when the overall average rainfall may appear normal, many areas may experience significantly higher or lower than expected rainfall.

The highly variable and unequal distribution of rainfall implies that Ethiopia experiences pervasive drought risk. Between 1978 and 1994 alone, there were 15 droughts (famines) with large number of households facing food and non-food consumption shortfalls each year. There is broad consensus that on average there appear to be five to six million Ethiopians in a “normal” rainfall year who are in need of some form of public assistance to help meet their basic caloric needs, although the

deprivation is undeniably exacerbated in years when rainfall deviates significantly below the trend. Furthermore, even small and localized shortage in rainfall can lead to widespread hunger because of poor infrastructure, low market integration, and very high swings in staple food prices. And as away to respond to hunger, households sometimes undertake actions that endanger their own survival in the long run-by selling oxen, delaying treatment of a health problem, withdrawing children from school, and soon.

The Risk and Vulnerability Assessment argues that more effective management of risk will require enhanced rural growth through improving the functioning of land, fertilizer and grain markets, rural credit and serving, diversification of income sources, increasing public investments in roads, fighting disease, expanding the coverage of the food security programs, protecting household assets, and increasing the productive element of safety net transfers (World Bank, 2004).

1.1.2.2 Productive Safety Net Program in Ethiopia

Food insecurity in Ethiopia is normally understood in terms of recurrent food crises and famines, and responses to food insecurity have conventionally been dominated by emergency food-based interventions. In the ten years from 1994 to 2003, an average of five million Ethiopians were declared “at risk” and in need of emergency assistance, and since 1998 the numbers of food aid beneficiaries in Ethiopia have fluctuated between 5 and 14 million every year (DFID, 2005)

However, high proportions of households that receive emergency food aid, or work on public works projects, every year are not “famine prone” but are “chronically food insecure” – they face predictable annual food deficits caused by agricultural production constraints and poverty. These “predictably food insecure” people are also exposed to recurrent shocks, usually triggered by drought, that raise their vulnerability further, by

forcing them to dispose of their assets to survive. This results in a gradual deterioration of their food security status over time, which decades of large-scale food aid deliveries have done little to prevent. Instead, dependency on food aid has steadily increased over time, as has the number of chronically food insecure Ethiopians.

The food based resource transfer schemes targeting vulnerable households have been tried in this country as part of food security programs since the early 1970s. In 1970s and 1980s there were extensive food for work (FFW) programs and considerable food resources were transferred to food insecure households in returns for which the household were employed to construct basic infrastructure such as rural roads conservation and to rehabilitate degraded lands by constructing terraces, bunds and check dams and protecting water sources. This program is later replaced in the 1990s by employment generation scheme (EGS) which was meant to be an improvement on Food for Work. It was incorporated as the "core stone" of the National Policy on Disaster Prevention and Management (NPDPM) of 1993 which was planned to link relief assistance to long term developments.

The Government of Ethiopia initiated a Productive Safety Net Program (PSNP) in 2004 with the objectives of reducing household vulnerability, improving household and community resilience to shocks, and breaking the cycle of dependence on food aid. The overarching principle of the Productive Safety Net Program is to facilitate a gradual shift away from a system dominated by emergency humanitarian aid to productive safety net system resources via multi-year framework (MoARD, 2004).

The PSNP was implemented by the Government of Ethiopia in January 2005, with technical and financial support from a joint donor group. The purpose of the program is to improve the efficiency and productivity of

transfers to food insecure households, thereby reducing household vulnerability, improving resilience and promoting sustainable community development. This relates directly to the Government of Ethiopia's goal of reducing vulnerability and attaining food security for approximately eight million food insecure people by 2009 through replacing emergency responses to chronic food insecurity with a multiannual, predictable resource framework to protect households from shedding assets and eroding their chance of escaping poverty in the longer-term. As designed, the program will address not only immediate food insecurity, but also contribute to addressing the underlying causes of food insecurity.

The PSNP draws a conceptual distinction between two groups of food insecure Ethiopians. The 'unpredictably food insecure' – those who face transitory food deficits because of erratic weather or other livelihood shocks – will continue to receive food aid and other humanitarian assistance, as and when required, through the emergency appeal process. The 'predictably food insecure' those who face chronic food deficits, because of poverty rather than food shocks – have been transferred from the annual emergency appeal to the Productive Safety Net Program. These families should receive cash or food transfers – either 'for work' or 'for free' – on a regular, predictable basis for a period of five years, with financial and technical support provided by a consortium of donors on a multi-annual basis. These transfers are expected to be used mainly to meet immediate consumption needs and to protect household assets, though they might also be partly invested in farming and small enterprises. Together with complementary interventions such as livelihoods packages, this should enable households to escape from chronic food insecurity, after which they will no longer receive any social assistance except during emergencies.

The specific objectives of the cash and food transfers provided through the PSNP include:

- ***To smooth household consumption*** – to bridge production deficits in chronically food insecure farming households that are not self-sufficient, even in good rainfall years;
- ***To protect household assets*** – to prevent poor households from falling further towards destitution, vulnerability to future shocks and chronic dependence on external assistance;
- ***To create community assets*** – by linking the delivery of transfers to activities that are productivity-enhancing, in order to promote sustainable developmental outcomes.

The PSNP initially targeted approximately 5 million chronic food insecure people living in 262 "chronically food insecure *woredas*" in 2005, which was increased to 8 million in 2006 (MoARD, 2004). The program is planned to be implemented for five years, at the end of which beneficiaries who have received predictable transfers and complementary interventions throughout the program period will be expected to "graduate" out of dependence on external support, except during food crises. Graduation means that the household is no longer chronically food insecure and also has the economic resilience to resist falling back into chronic food insecurity in the future. In an important signal of intent to move away from permanent dependence on large-scale annual food aid imports, both food and cash are used as resource transfers on the PSNP.

On this basis, within the frame work of national Food Security Program(FSP), which emphasizes the three interrelated pillars of food availability, access to food and utilization is one of several instruments to address the need of this chronically food insecure households via productive food security program, rather than through a system dominated by emergency humanitarian aid. This policy shift has been

strongly supported by safety net donor group who have worked closely with the government. The government and the donors share a common goal to shift the financing of the program from food aid to development-oriented grants.

1.2. Description of the Study Area

1.2.1 Location and Size

Adami Tulu Jido kombolcha is one of the weredas found in East Shewa Zone of Oromia Regional State. It is located on the Addis Ababa to ziway road, south of Addis Ababa and 230 away from Addis Ababa. The woreda shares boundaries with southern Nation and Nationalities People Regional State (SNNPRS) in West and North West, Dugda Bora Woreda in the north, Arsi Zone in the east and Arsi Negele Woreda in the south. Astronomically the woreda lies between 70 35' and 80 05' north latitude and between 380 20' and 380 55' east longitude. The woreda has a total area of 1403, 3km2 which is divided into 38 administrative rural kebeles and five towns. Batu Town is the administrative center of the wereda (OESPO, 2003).

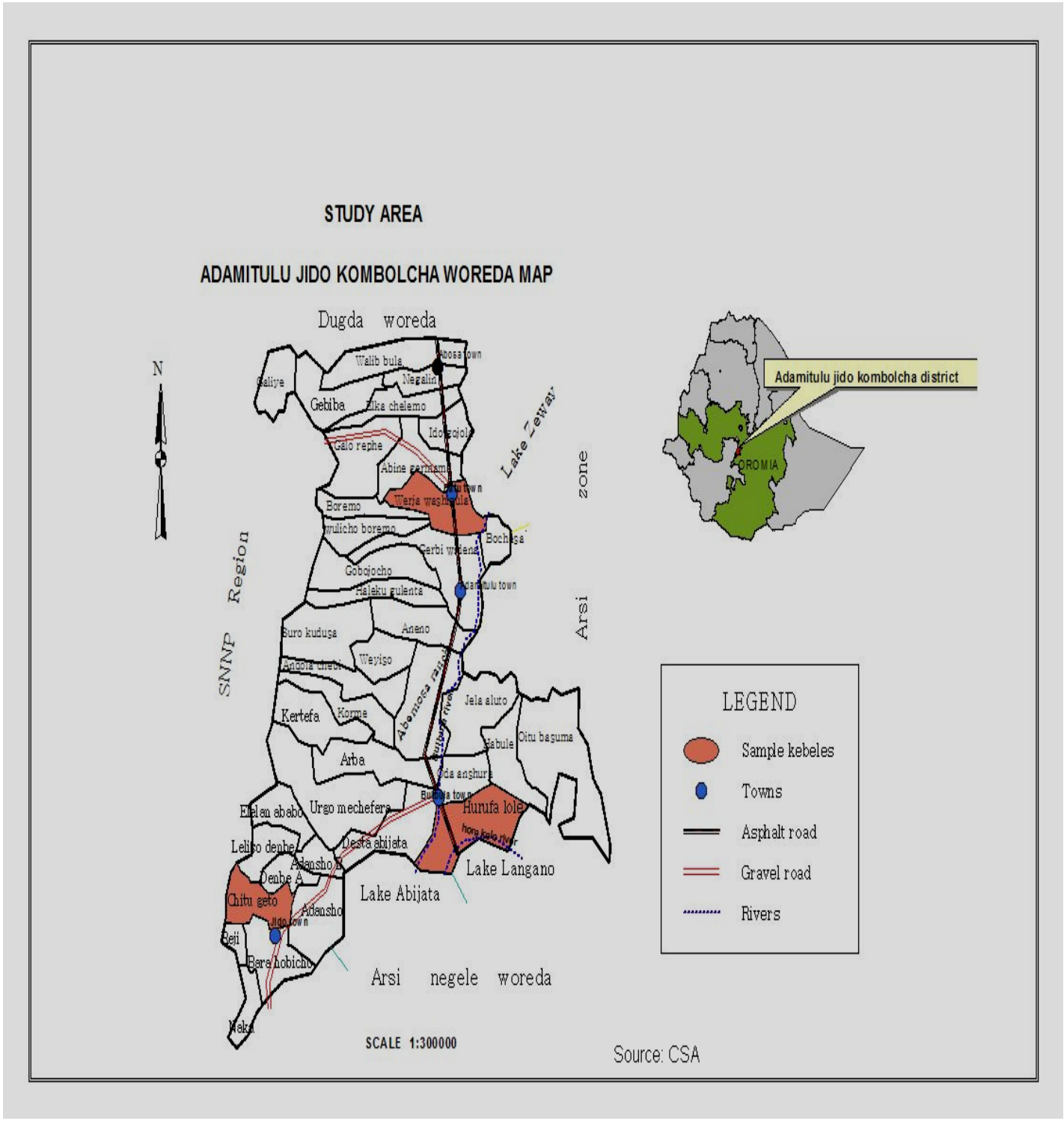
1.2.2 Relief and Climate

All parts of Adami Tulu Jido Kombolcha comes within the sub tropical climatic zone having semi arid and arid agro-climate zones. It receives on average annual precipitation of 759.7mm.The rain fall is getting meager from time to time and as a result almost all parts of the district are exposed to recurrent drought. Although the farming season is from March to July, it is not sufficient to grow *belg* crops. Therefore, farmers depend only on growing *meher* crops, once in a year. The mean annual temperature is 19.98^{o}c at Zeway Station. May is the hottest month with mean maximum temperature of 28·c.The coolest month is December with mean minimum temperature 10^{o}c (OESPO, 2003).

1.2.3 Drainage

Adami Tulu Jido Kombolcha woreda shares parts of the main rift valley lakes of Zeway, Langano and Abijata. Bulbula, Jido, Hore kelo and Gogessa are rivers in the wereda. Bulbula River starts from Lake Zeway and empties in to Lake Langano. Hore Kelo River connects Langano and Abijata lakes. Jido flows into Lake Shalla and Goggessa flows into Lake Abijiata. Zeway and Langano lakes have high fish potential Langano and Abijata lakes are saline/alkaline/. The Abijata is rich in soda ash.

Figure 1: Location of Study area of Adami Tulu Jido Kombolcha woreda.



1.2.4 Soils and Vegetation

Adamai Tulu Jido Kombolcha district is covered by black brown and sand soils which are classified into vertic sand soils. Other soils that are found in the district include luvic phalozems and litho sols. Andosol soils originate from volcanic lacustrine deposits with volcanic ashes, ciders and pumic. Fluvisols are derived from alluvium on the lakes shore. Geleyic mollic fluvisols are derived from lacusrine deposited along the shores of Lake Zeway (ESFEDD, 2004).

Vegetation and world life Open woodland consists of different Acacia species such as Balanties aegyptica, croton macro stachyes and other species generally characterize the vegetation cover of the area. Acacia species provide essential browse mainly to goats and other animals. The density of acacia has been remarkably reduced. The people have been cutting acacia tree mainly for the production of charcoal. Great white pelican, bush duck, hippopotamus, flamingo, ostrich and others are the dominant wild life found in the woreda.

1.2.5 Population

According to the woreda agriculture and rural development office, the total population of the woreda is estimated at 164,321 for the year 2006 (computed from 1994 CSA population and housing census which accounts a 3% population increase every year) of which 14.5% urban and 85.5% rural. The economically active (15-64 years) are 50% of the total population. Children below 15 years are 48%, while elders (65 years and above) are only 2%. The male and female number is more or less equal. The population is characterized by high growth, increasing at a rate of 2.9% annually. The average household size was 4.6 with 4.9 and 4.2 for rural and urban areas respectively. The population density was 99 persons per square kilometer (ESFEDD, 2004). With regard to ethnic and religious composition 78.7% are Oromos, 21.3% are other ethnic groups. Muslims are 72.4%, 27.4% Christian and 0.2% others.

1.2.6. Crop Production

Maize and haricot beans are the major crops grown as small holding subsistence farming system in the district. Maize is used mainly for food and haricot beans are a cash crop. Some farmers also grow sorghum, Teff, Wheat and Barley. The land holding per household in the district ranges from 0.75 to 5 hectares. More than 50% of the land holders are cultivating 2 or more hectares of land. However this amount of land per house hold could not allow adequate food production as the area is characterized by low and poor distribution of rainfall. Food production in the district is also determined by access of oxen. Accordingly about 13-20% of the farmers cultivating the land have no oxen, while more than 60% have only one ox (OESPO, 2003).

As indicated by woreda the agriculture and rural development office input utilization is also a constraint for agricultural production. The key components agriculture inputs in (improved seeds, fertilizers, pesticides, etc) are used a very small amount. Even if they are available they are not provided when needed, for instance, the annual consumptions of fertilizers and improved seeds during the 2005/2006 harvesting year are 5920 quintals and 30 quintals respectively. This amount is very small when shared to the total farmers in the district.

1.2.7 Livestock Production

Livestock is the major component of the farming in the district .The current number of the livestock estimated by the woreda's Agriculture and Rural Development Office indicated, there are 141586 cattle, 39465 goats, 6424 sheep, 10631 donkey, 669 horses, and 71463 poultry (ATJARDO, 2006).

The large number of cattle, sheep and donkey indicates that the area is more suitable for these animals. The number of goats is more than six-folds than the number of sheep; the number of donkeys is about sixteen-folds more than the number of horses. Donkeys have important role in the agriculture and transport economies of the district donkey costs are used to transport agricultural products, water human beings and other items from place to place.

1.2.8 Irrigation

As indicated by the Adami Tulu Jido Kombolcha woreda irrigation development department, total potential irrigable land area on the lake Zeway and Bulbula river in the woreda is estimated 2,776 hectares out of which about 1,876 hectares of land is already developed by individual farmers, associations and private investors'. The largest and area holding 603.8 hectares belongs to state farms, followed by individual farmers and cooperatives together holding 548 hectares.

About 264.7 hectares of land is owned by large-scale private investors and 159.5 hectares by small-scale private investors by renting irrigable land from the farmers. The main items grown on her include various crops, vegetables, fruit and flowers. This indicates that farmers in Adami Tulu Jido kombolcha wereda are food insecure because they are unable to use even their own irrigable land for their own benefit because of lack of motor pubs, seeds and other inputs.

As to fishery production in the district Zeway and Langano lakes have high fish potential on both lakes 5 farmers cooperatives having 180 beneficiaries and capital of 197,000 birr are producing fish for their own benefit. Already underway Lake Zeway is utilized for both irrigation and fishery purposes.

1.2.9 Land Use

Although the current land use patterns of the district is not well known, a socio-economic study by the Oromia Region estimated land use types of Adami Tulu Jido Kombolcha district indicated that 45% Cultivated land, 30% grazing and wood land, 7% Marginal land and 18% others (OESPO, 2003).

Almost all cultivated lands are with a range of scattered to very scattered trees (mainly Acacia species). Villages are also found in a very scattered pattern. The major land use pattern is characterized by open woodland, grazing with annual

crop cultivation. Livestock rearing, rain-fed annual crop cultivation, fishing, traditional mining, some irrigation practice, and fire/charcoal /wood harvesting are generally the land use activities in the woreda.

1.2.10 Mining

As Adami Tulu Jido Kombolcha is found in the Ethiopian rift valley floor, its geology is dominated by volcanic and tectonic activities. The volcanic rocks and minerals, geothermal heat and hot springs here are all evidences for the landscape of the district to be under the prevalence of volcanism. Besides these, there are also sedimentary batons where lecturing sediments and sedimentary materials are deposited. Those formations related to volcanism correspond with igneous and those related to volcanism correspond with sedimentary materials as a result, the mineral resources of the district include pumice, scoria, ignimbrite welded tuff, etc (igneous materials) and soda ash, diatomite, sand, sand stone, oil shell, etc/sedimentary materials. These minerals are being mined both as small and large scales for different purposes including construction, industrial raw materials, etc.

Livestock are facing water shortages at the time of dry season when ponds are dry. They are forced to travel long distance to the surface water sources of Lake Zeway and Bulbula River to search for drinking and animal consumption. The ground water in the district is highly fluoride and too deep to extract regaining huge capital investment and skilled man power to be used.

1.2.11 Marketing

As it is time in most parts of Ethiopia, the price of food crops and livestock in Adami Tulu Jiddo Kombolcha woreda has increased since last year. Although maize and haricot beans are the major crops grown, their price is not as high as those crops produced in smaller proportion locally or imported from the other areas. This might have its own influence on the availability and access to food to the local farmers. Livestock is the major asset of the farmers in the district.

However it is gradually eroded as the area has been affected by recurrent drought.

1.3 Statement of the Problem

The Productive Safety Nets Program is one of the Government of Ethiopia's (GoE) flagship programs and represents a significant transformation of the Government's strategy for meeting the Poverty and Hunger Millennium Development Goal (MDG) in Ethiopia. The PSNP represents a serious and innovative attempt on the part of the Government to move away from responding to chronic hunger through emergency appeals towards a more predictable response with predictable resources for a predictable problem.

The present study area, Adami Tulu Jido Kombolcha district, is generally considered as drought-prone and food deficit woreda. Almost totally dependent on agriculture in a high risk environment makes them vulnerable to any external shock, such as drought. Drought and other climatic extremes are major factors contributing to vulnerability to poverty and food insecurity.

According to woreda FSDPPC (2007), sever famines were registered in 1985, 1995, 1999 and 2003, which highly eroded households' livelihood and productive assets. Data available from woreda's DPP office indicates that in 1999 more than 50% of the rural people needed food assistance. In 2003, the problem was by far surpassing those that had occurred in the past when more than 60% of the rural population had become relief food aid beneficiaries. Over the same year the Oromia Disaster Prevention and Preparedness Office and the Oromia Health Bureau indicated that more than 700 less than five years severely malnourished children were admitted for therapic feeding (feeding with medical care) by an international non-governmental organization called Medicine San Frontiers Holland, out of which 60 children were died. As the result the incidence of vulnerability and food aid appear to be increasing. For this reason government and non-government organizations have been giving special

attention to address the problems in the study area through various long term development interventions. This would require broad-based promotion of cash for work and cash for relief programs.

The PSNP provides cash to chronically food insecure households in ways designed to prevent asset depletion at household level while creating assets at community level. The existence of significant asset risk and the behavioral response these risks elicit lead directly to the strongest economic rationale for safety nets. This provides the prevailing humanitarian rationale for interventions. We want to pursue a slightly different, supplementary tack in arguing the economic rationale for safety nets. The poor tend to be much more exposed than the rich are to asset risk and thus face a higher probability of being cast below critical thresholds due to adverse shocks caused, for example, by drought, floods, epidemics or war. In the absence of effective safety nets, people routinely fall not only into poverty, but beyond critical asset thresholds and into chronic poverty.

Effective safety net programs can generate significant indirect benefits by reducing vulnerable people need to mitigate downside risk through costly portfolio management and activity choice or to sell off scarce productive assets. Although the program is three years (since 2005), there is a need to assess the impact of the program to drew a number of lessons that can be helpful in improving the performances of the ongoing programs before the program will be finalized. Therefore, the theme of this study is to examine the impact of Productive Safety Net on household welfare in Adami Tulu Jido kombolcha wereda of East Shoa Zone of Oromia Regional State.

The specific research questions to be answered are

1. What impact does PSNP transfers have on household welfare?
2. Does PSNP Transfers have impact on household assets as the result of the PSNP transfers?

3. To what extent PSNP transfers create community assets and address the problem of food insecurity?
4. Finally, can the result of the above research questions lead to a conclusion that PSNP transfers in the study area reduce household vulnerability and contribute towards the well-being of the household?

1.4 Objective of the Study

The study aims at examining the impact of Productive Safety Net on household welfare in Adam Tulu Jido Kombolcha woreda of East Shoa Zone of Oromia.

The specific objectives of the study are

1. To assess the impact of the PSNP transfer on household welfare.
2. To examine changes in household asset/asset protection as the result of PSNP transfers.
3. To assess the extent of PSNP transfers create community assets and address the problem of food insecurity.
4. Finally, to draw conclusions and some policy implication, and recommend viable means of reducing household vulnerability in the woreda

1.5 Hypotheses

The following hypothesis serves as the guiding research assumptions.

1. The PSNP transfers contributed positively in improving household welfare/Poverty,
2. The PSNP transfers creating asset at household and community level and protecting households' assets.
3. The PSNP transfers have contributed positively in providing social protection to vulnerable people and increased food availability and access to food.

4. The PSNP transfers increased access to infrastructure, creation of productive asset, environmental protection, and enhanced access to education and health facilities.
5. The Error in targeting and community participation are negatively affected the contribution of PSNP.

1.6 Significance of the Study

This study attempts to provide, on the basis of the findings, some recommendations that would help the program implementation and outcomes in the study area.

The findings and recommendations of this may serve as a reference to Government, Local and Non Government agencies that would like to deploy innervations in the area. The result of the study can also be utilized in other areas with similar physical and socioeconomic characteristics.

Moreover, this study could initiate others to carry out extensive studies in the area. Ultimately all these efforts may help policy makers to consider household variations and related issues in formulating national, regional and local policies. The study is also to contribute to the thin literature of the country on the subject.

1.7 Organization of the Study

Following this introduction, Chapter 2 reviews relevant literature to establish a background framework for the study. Chapter 3 describes the data and methodology that was devised for this study, data and survey instruments, sampling, data collection and analysis. Chapter 4 presents major findings and discussions from the household survey data. Chapter 5 offers some conclusions and policy implications based on the preceding analysis of survey findings. Finally, the Annexes to this research include the reference, the household questionnaires, and statistical tables not included in the main text presented.

CHAPTER 2. REVIEW OF RELATED LITRATURE

2.1 Conceptual Framework of Safety Net

2.1.1 Conceptualizing of Safety Net

In many developing countries during the 1980s and 1990s poverty eradication was pursued through programs and policies that focused primarily on promoting economic growth. While this strategy continuous to be important, it is now widely accepted that growth is not sufficient on its own. Economic growth takes time to materialize and even when it does occur, its effect may be unevenly distributed leaving many poor people unable to take advantage of the opportunities it provided. As the result it is becoming important that vulnerability and risk reduction is possible through combination of economic growth with social protection measures (Holzmann, R. et al. 2003).

Social protection strategies are integrated system of institutionalized national measures, which included contributory pensions, insurance schemes and safety nets (Holzmann, R. et al. 2003). Safety nets are a form of social transfer that usually involves cash or in-kind payments to the most vulnerable sections of a population either gratuitously or through public works (Mesfin.et.al 1997). Food safety nets are a sub set of social safety nets, and aim to ensure a minimum amount of food consumption and/or protect households against shocks to food consumption (Rogers and Coates, 2002).

When poor people encounter shocks, they suffer from the direct effects of poverty and hunger making them less productive and less able to earn a living. They are also forced to employ negative coping strategies such as reducing food consumption, selling productive assets, and removing children from school (Barret, 2001). Insights into vulnerability and risk have demonstrated the importance of combining economic growth strategies with social protection measures such as safety nets (Holzmann, R. et al. 2003). Social protection

strategies are integrated systems of institutionalized national measures, which may include contributory pensions, insurance schemes and safety nets. Safety nets are the social protection component targeted at the most vulnerable sections of a population. In the past, many developing countries had an assortment of uncoordinated programs run by a variety of actors.

A safety net as a component of social protection systems is distinguished from individual projects by the integration of many activities into a predictable, institutionalized system based on a framework of vulnerability and risk. Vulnerability is crucial to understanding how people become poor and why they stay poor (Alwang, J. et al. 2001). It is a function of a household's capacity to manage risks and its exposure to risk. Risk-management capacity relates to a household's ability to use its human, physical, financial, social and environmental assets, and the livelihood strategies it pursues, to deal with risk. Exposure to risk is determined by the external environment, including the general economic situation, the national political and legal framework, and the likelihood of natural disasters and conflict.

Exposure to risk and the realization of some of these risks in the form of shocks can be severely detrimental to poor people's livelihoods. When shocks are encountered, poor people suffer from the direct effects of poverty and hunger, making them less productive and less able to earn a living. Because of their narrow margin of survival, they are at the same time extremely sensitive to risk and unable to take chances that might improve their livelihoods, such as investing in education or crop diversification (Barrett, C.B. et al. 2001)

Each time they are hit by a shock, they are forced to employ negative coping strategies such as reducing food consumption, selling productive assets and removing children from school. These strategies further diminish their asset base and make them more vulnerable to the next shock. This vicious cycle is often referred to as the "poverty trap".

It is difficult for poor people to escape the poverty trap unaided. They require a combination of development activities complemented by social protection measures such as safety nets. In understanding how safety nets work, it is important to recognize that poor people are not one homogeneous group. The "transient poor" move in and out of poverty while the "chronic poor" stay permanently below the poverty line. When affected by shocks such as drought, flood and job loss, the transient poor require protection and promotion to keep them out of the poverty trap (Shinha, S. and Lipton, M. 1999).

Chronic poverty has deeper roots. Effective assistance for the chronic poor requires a combination of livelihood protection and promotion measures complemented by interventions to address the structural constraints that they face. The chronic poor fall into two groups: the able-bodied and the dependent. For the able-bodied, the protection function of the safety net ensures that they do not fall any further into poverty while promotional activities strengthen their livelihoods, providing them with a platform for future development. The dependent include elderly, disabled, sick and malnourished people who require ongoing support, at least for a time. When safety nets designed to address chronic poverty are combined with development activities, these beneficiaries are able to make significant gains (Devereux, S. 2002).

In safety net operations, the timely provision of assistance becomes just as important as its availability. If for example, people have to leave their farms in search of food in a drought emergency, by the point of food they probably have already used up, loss or sold off most of their productive assets and their health and nutritional status may already be severely degraded. In order for safety nets to be effective in reducing vulnerability to reduce shocks and in protecting crucial productive assets, they must respond swiftly to emergency needs (Christopher, et.al. 2005). Even in prospecting economies, some families will face hardship due to loss of job, illness, or chronic poverty. Safety nets should thus be a permanent feature of social policy. In good times, they help families in

difficult circumstances. In bad times, it is much easier and more effective to expand existing programs than to build them from scratch during an emergency.

In the past, safety nets were often viewed as simple relief transfers that helped poor people to alleviate the worst effects of shocks, but that had limited long-term benefits and involved the danger of creating dependency. However, based on a more empirically grounded understanding of risk and vulnerability, it is now recognized that safety nets, if correctly implemented, have the potential not only to protect, but also significantly promote the livelihoods of poor people (Devereux, S. 2002).

2.1.2 Working Model of the Impacts of PSNP Transfers on Household Welfare

In its attempt to draw the impact of PSNP transfers on household welfare and food security, the following working model is being developed to guide this study (Figure 2).

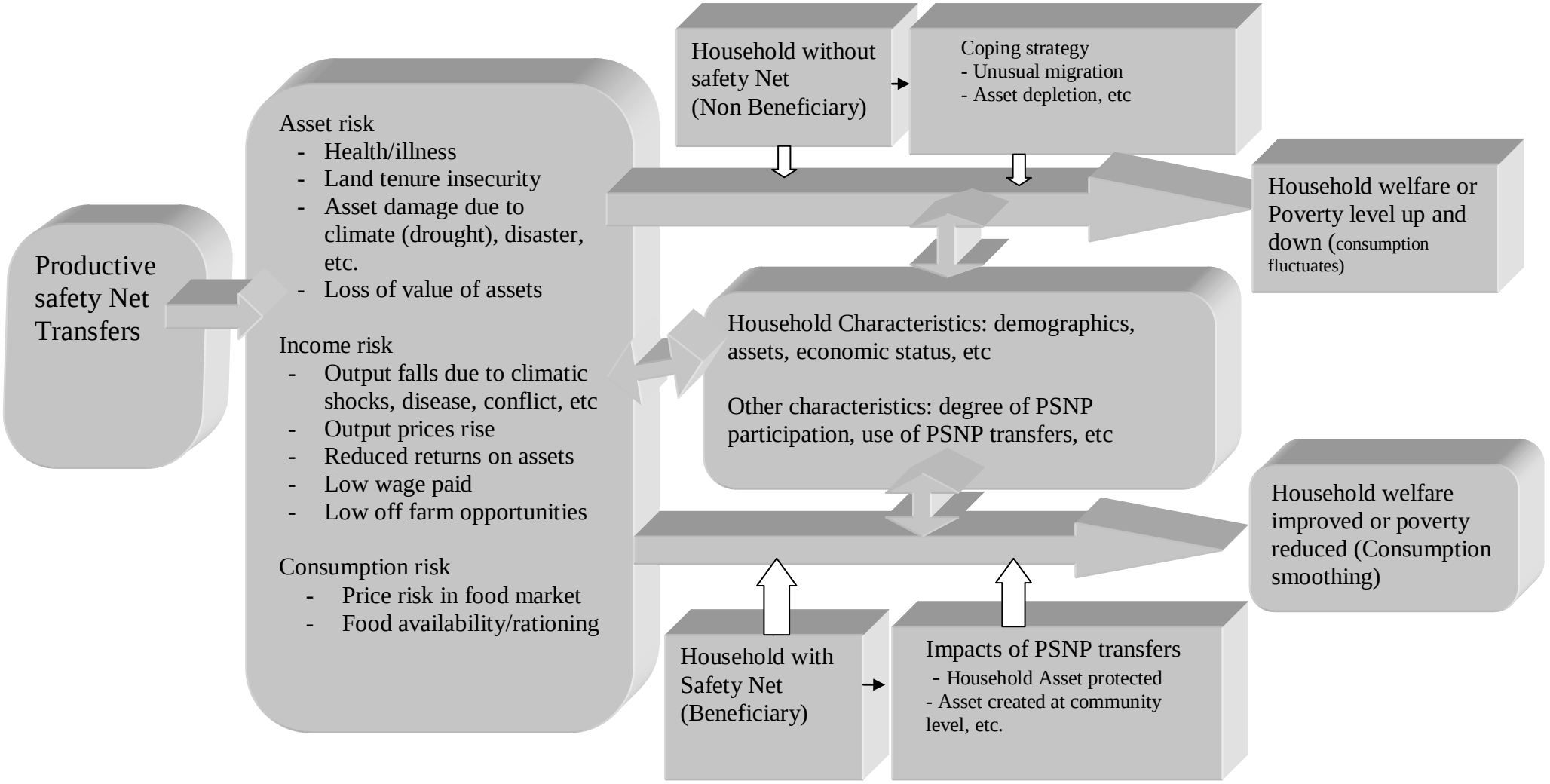
As the figure indicates the PSNP transfers affect household welfare and food security. Poverty is the root causes for vulnerability to food insecurity. Low level of investment on social services and infrastructure facilities and drought coupled with increasing asset depletion are affected by extent of poverty and aggravate household food insecurity.

Poor household do not have enough access to agricultural production resources to produce their own food, nor sufficient income from other sources. Thus, in the absence of PSNP transfers households resort to migration and sales productive assets to smooth their consumption levels. The extent to which individual households can be able to take advantages of PSNP transfers depends upon household characteristics (demographics, human capital, assets, economic status, etc) and the use of PSNP transfers for asset creation, consumption

smoothing and protect household assets. This study investigates how PSNP transfers respond to these factors.

Thus, a household with no PSNP transfers or Non-PSNP beneficiary are more vulnerable to risks and asset depletion which affects household welfare and food security while household with PSNP transfers or PSNP beneficiary can create asset at household and community level and hence household food secure and poverty reduced.

Figure 2: Working model of impacts of PSNP transfers on household welfare



2.2. Empirical Literature

Although literature on impact/effects of PSNP transfers in Ethiopian context has been scarce, an attempt was made to review some findings. As to effects of safety net in offering employment to the people, public works can reduce seasonal and long-term out migration mainly by adult economy from marginal areas, which is disruptive of family stability and the local economy, including agriculture and hence household food insecurity.

The food ration paid to the works can be expected to reach local men, women and children more directly from income earned elsewhere that may or may not remit home. Most importantly from a development perspective, if men and women stay and work on creating assets locally, the benefit of their labor will be derived by themselves and their communities, not by employers for away (Devereax, 1998).

Comparison of household incomes of participants and non-participants was undertaken in Lesotho and Burundi. In the case of Lesotho non participant household head on average had 50% higher incomes and this was explained by the fact that employment on road project was seen as the "least resort" when more lacustrative opportunities are hard to come by". The Burundi survey focusing on female workers, found participation households have 20% higher incomes associated mainly with income from road projects (Keddeman, 1998).

In Indian context, Public works provide a stream of income during the lean season and thereby prevent the distress selling of assets by the rural poor. In these sense these schemes have a stabilization effect on the income streams of the poorest classes (Nayyar, 2002). Surveys on spending/consumptions patterns have been undertaken in Ghana, Thailand, Ruwanda and Burundi to determine the micro impacts of

increasing of the public works. Surveys in Ghana found that some over presentation of the young, mainly male, persons were slightly more inclined to spend money on housing improvement, production input (tools, improved seeds, etc.). Surveys in Thailand road program found that as much as 60% wages were spend on dept payments.

A detailed analysis of spending behavior among participants and non-participants of the public works on road projects in Rwanda and Burundi suggested that recruitment in the case of Rwanda, had tended to favor young, unemployed persons who have more inclined to save and invest than the average person or household in the project area. In Burundi, however, recruitment had been more biased because of favoritism and workers tend to be representation of better off groups. Their spending and consumption habits did not deviate from those of the population at large; current consumption is the expenditure item (Keddeman, 1998).

With regard to the long-term effects of assets created by public works a study in Bangladesh villages found that crop output increased by 32 percent following the introduction of roads, which was matched by a 33 percent rise in agricultural incomes for poor households (Jazairy,et.al, 1992). Another study of the development impacts of food-for-work roads in rural Bangladesh found positive impacts of the following areas: improved local communications, reduced travel time, and transport costs, increased use of new farm technology, increased use of family planning services and increased primary school attendance (USAID, 1991). Large scale public works in India have recorded significant improvements in rural infrastructure construction (Ravallion, 1990).

A study undertaken in Oromia region, impact study on Meda Welabu Woreda has found that food aid does not have greatly reduced livestock sales as it is not enough for the household basic requirements such as food, medicine, clothes or wedding expenses (CA, 2001). On the contrary,

a study by SCF (2005) on the impact of food aid in North Wello, South Wello and East Hararghe pointed out food aid effectively prevented the sale of productive assets like draught animals in months when food aid was delivered (SCF, 2005).

However, due to loss of income from crops and the failure of other income sources, households were forced to engage on elevated animal sale to buy grain and non-food items in months when food aid distribution did not occur. According to this study animal sale was inversely related to the size of the received ration and the regularity of distribution. As to food aid targeting most findings in Ethiopia indicated that all of the poorest households were not benefited from the food aid, instead households with some assets and resources were likely to receive food aid (CA 2001, SCF 2005 and WFP 2004).

A study by Dagnew (1994) on FFW projects in south wollo indicates that farmers were observed selling of their livestock and thereby by reducing their livestock size for the sake of fulfilling the screening criteria to be food aid beneficiaries. As to the public work beneficiaries, different targeting methods and efficiency can be evaluated. According to WFP (2003), the majority of the targeting error in most regions of Ethiopia is the inclusion error. Fewer exclusion errors were made. The close relatives of the members of the kebele committee or the clan members were often favored.

With regarded to the implementation of the EGS projects in East Harerge, North and South Wollo and Borana Zones indicated that many international NGOs and the regions have failed to adequately implement the national policy and EGS guidelines as free relief assistance is increasingly becoming a position of “first” rather than last resort. In some of these areas beneficiaries have received food in exchange for work at hypothetical date.

The evaluation of USAID on its intervention that link relief and development showed that food aid led to the creation of sustainable asset at either household level and community level in most cases (USAID, 1991). According to FAO although Ethiopia has a large potential of EGS resources derived from relief appeal, it was not yet realized to build assets. This was because of poor planning and implementation of EGS activities and as the result vulnerability continuous to persist in many areas. Although this assistance has saved many lives, it did not manage to protect livelihood, generate community assets or preserve physical and human capital assets to the extent that could have been expected (World Bank, 2004).

Food aid in Ethiopia has both incentive and disincentive effects. Debebe (2000) indicated food aid does not have significant impact on farmers' production and purchase of food grains. As to the positive impacts of food aid declared by the farmers is the increase in fertilizer and other inputs uses. Although the influence is not statistically significant to affect food grain production, farmers reported to have moderately intensified their use of fertilizer and other inputs by allocating part of their freed income on farm input purchase (Debebe, 2000).

With regard to the impact of food aid on education and distress migration in Ethiopian, WFP (2004) affirmed that the percentage of households reporting having children drop from school is higher among the beneficiaries than non beneficiary household. This is because there are so many other reasons which affect education other than food. Distress migration was reported by the lack of food (87%), the lack of employment opportunities (7%) and the land shortages (6%). The amount of expenditure on food items was also reported to be slightly varied between beneficiaries and non-beneficiaries.

Assessments of contributions of food aid project of European Union in Adami Tulu Jido Woreda in Galo- Rephe, Gebiba- rasa and Galiye- Migira PAs by Beharu (2005) indicated that food aid projects have contributed a lot in solving the problem of road, soil erosion and deforestation. However, the project did not solve the serious problem of the water faced by the community.

Clay et al (1997) have conducted research on household food insecurity and food aid distribution in Ethiopia taking a very large sample size of about 15000 households from all over Ethiopia and found out that even in a relatively good harvest year, 43,3% of Ethiopia's farm households are food insecure, or have available for consumption less than the minimum daily nutritional requirement. Food aid programs, either in the form of free food or food-for-work, are vital to the health and well-being of these deficit households, deficit households, when properly targeted; succeed in raising their level of food availability from 735 kcal per person-day to 1,217 kcal, or by an average of 59% through the receipt of food aid. However, due to unsuccessful food aid targeting overall, only 22.3% of the deficit households is selected as beneficiaries. The remaining 77.7% of food insecure households have no food aid safety net.

Getachew (1995) also indicates that household risk of food insecurity and famine were greatly increased by long term secular decline in resource endowment, combined with unfavorable food policy intervention. Emphasizing on subsistence farmers food insecurity situation, he underlines that the prevailing inability of Ethiopia's small-scale agriculture to feed its population is mainly generated by the neglect of the policy and the decline in access to productive resources upon which most of the livelihood are built.

Assessments of the trends of the PSNP projects by DFID, 2006 in three regions Amahara, Oromia and Tigray indicated that beneficiaries are significantly more likely to have experienced an improvement in well-being over the last year than non-beneficiaries. Other results are also examined, with literacy of head and income positively and significantly related to wealth of households. Also, as the number of coping strategies that a household engages in increases (a proxy for vulnerability), the less likely the household is to have experienced an improvement in wellbeing over the past year. Households in Tigray are more likely to have felt an improvement in wellbeing compared to households in Amhara, whereas households in SNNPR feel worse off compared to households in Amhara.

CHAPTER 3. DATA AND METHDOLOLOGY

3.1 Data Type and Sources

To properly answer the research questions and fulfill objectives of the research, the study was based on both primarily and secondary sources of data. The primary source of data was the main source of data for this survey. The primary data were obtained from 162 sampled household heads.

The information pertaining to PSNP transfers were collected through household sample survey to generate both qualitative and quantitative data. The household level questionnaire includes:

i) Demographic characteristics of sample households,
ii) Data concerning Socio-economic Conditions of households,
iii) Household asset base and asset changes,
iv) Household activities, income and expenditure,
v) Food security and coping strategies,
vi) PSNP participation and Community asset creation,
vii) Household perception of targeting.

The household survey questionnaire is appended as Annex 1 to this report.

Household survey was also supplemented by focus group interview and group discussion. The key- informant interviews were carried out to obtain information on community profile. The informants include community elders, Development Agents working at the study area and peasant administration officials as well as religion person and the like. The qualitative data collected by this method will be systematically incorporated into the document to substantiate the information of quantitative data. A total of 10 key informants were interviewed.

Focus group discussions were also held in study communities. The participants involved representatives from different age groups, from various villages of the communities, from different economic strata and from both sexes to maintain gender balance. The participants expressed their own feelings (perception) and offered their experience regarding the issue under study. The group discussions were held with three different groups from all the three selected kebeles. A total of 20 participants were involved from each kebeles

In addition to primary data, reviewing various institutional reports, research results and documents and relevant literatures were used from national, Regional, and zonal and wereda level offices, CSA, MEDaC, DPPC and other institutions.

3.2 Sample Size and Sampling Technique

Sampling for this survey was done at two stages: first the kebeles, and then PSNP beneficiary and non-beneficiary households. Regions and weredas were not part of the sampling frame, as they were pre-selected based on a number of criteria that are considered to the survey design.

The main criterion for selecting kebeles was their level of participation in the PSNP. To identify the kebeles to be surveyed, the researcher visited the office of the Bureau of Agriculture and Rural Development (BoARD) at the wereda and obtained a list of all kebeles in the woreda, including either the percentage of households registered for inclusion on the PSNP by kebele, and/or the total population of each kebele and the numbers of PSNP participants in each kebele (this was to allow the percentage of inclusion to be calculated).

Next, the list of kebeles was ranked by the percentage of households registered for inclusion on the PSNP. If the highest percentage of PSNP participants, this kebele was ranked first, while if the lowest percentage of participants, this kebele was ranked last. The next step was to select kebeles from this list. This was done by selecting the highest-ranked kebele and the middle-ranked kebele.

A final consideration was logistics. If one kebele was inaccessible by road, or if the two kebeles were located far apart, this might have been impractical given the tight time constraints for the fieldwork. Therefore, based on above selection criteria *Chitu-Geto* and *Hurufa Lole* kebeles were selected to represent safety net beneficially kebeles. *Werja Weshgula* kebele was selected to represent non-safety net beneficially kebeles. A random sampling of 162 households was selected by systematic sampling method using the list of households that were registered as tax-payer. The total numbers of households in each category are summarized in Table 3.1 below

Table 3.1: Population Size and Sample Size included in the sample frame

Sample *kebeles*	Agro-ecology		No of HH	Total population (2006)	Total No. Of Household interviewed
	Kola	Woina Dega (%)			
1. Chitu-Geto	60	40	678	3671	47
2. Hurufa Lole	100	0	710	4538	60
3.Werja Weshgula	90	10	600	4114	55
Total			1,988	12,323	162

Source: Woreda Agriculture and Rural Development Office, 2007/08.

3.3 Field Work and Data Collection

For this purpose of study, questionnaires combine of open ended and close ended was designed and pretest before the actual survey. Before conducting the actual data collection, a pretest of the questionnaire was carried out to check whether the questionnaire was standard type of questionnaire or not at the beginning of January 2008. The adjustment of the question was made on the information from the field pretest so as to make the instruments used have content validity and also reliability. Preparation of the questionnaire was finalized after this preliminary field visits.

Three enumerators were placed in each site and the whole activities was supervised and coordinated by the researcher. The actual household survey was conducted during the period February to March 2008. Some two days were spent in collecting secondary data from the woreda office.

3.4 Data Analysis

All the data collected was coded and entered in to the computer for analysis. The study used both qualitative and quantitative data type to analyze the effects of Productive Safety Net transfers. The data was presented using descriptive narrative method qualitatively and quantitatively. Data analysis and interpretation were made to describe and explain effects of PSNP transfers and implications of outcomes. Simple statistical tools such as mean and percentages were also used. Data generated through focus group discussion and key informant interviews were analyzed qualitatively. Finally, regression estimates to test the impact of the transfer on household welfare over the last year was used. The regression analysis was undertaken using the probit model with random effects.

3.5 Model Specification

The regression analysis was undertaken using the Probit model. The probit model was produced in this study based on the special nature of the dependent variable (which is binary). In the probit model of single bounded dichotomous format, households are given initial bid which they may accept or reject.

The model yield estimates of influence of various demographic and socio-economic variables on the probability that a given household get access to transfers affect household welfare. Estimation is undertaken using the maximum likelihood method.

The probit model is produced in this study based on the following assumptions. The assumptions is that the decision to the I^{th} household weather household wealth improved or not is depended on an observable utility index Ii, explained by a set of certain independent variables.

The motive of the probit model, assumes that in our household welfare analysis of I^{th} household welfare improved or not depends on an unobservable utility index Ii(also known as a latent variable), that is explained by explanatory variables (X*i*). This utility index, which indicates that the probability of transfers improve the welfare of household will be greater if its value is larger.

The Probit model can be specified as:

$Ii = \beta' Xi + ui$, Where

Ii= Utility index

β' = Vector of the parameter of the model coefficients

Xi = Vector of explanatory variables

ui = The error term assumed to have normal distribution with zero mean and a common variance δ2 (Greene,1997)

Now it is reasonable to assume that there is a critical or threshold level of the index, call it Ii*, such that if Ii >Ii*, like Ii, is not observable.

Suppose Wi* is observed if Ii* > 0 and is not observed if Ii*≤0.

Then the observed Ii* will be defined as

Wi = Ii* = β'Xi + ui if Ai* >0

=0 if Ai*≤0

Where

β' = A vector of coefficients ,

Xi = A vector of explanatory variables,

ui = The error terms that are independently and normally distributed with mean zero and a common variance δ2.

Therefore, based on the above assumptions, a binomial probit model is used to deal with the analysis of the probability of household welfare improved or not.

CHAPTER 4. MAJOR FINDINGS AND DISCUSSIONS

4.1. Descriptive Analysis

4.1.1 Household characteristics

The demographic characteristics of households have impacts on welfare of household. Thus in this section the study examines the existence of any systematic relationships between household demographic characteristics and household welfare. Certain important demographic characteristics such as age, sex, literacy status of the household head as well as dependency ratio, family size and their relationship to household welfare have been examined thoroughly.

Table 5.1 shows that out of the total sampled household heads, 18.6 percent are female headed households, of which 20.9 percent and 13.4 percent are beneficiary and non-beneficiary household respectively. About 9.8 percent households were headed by older households above 60 years, of which 11.8 percent beneficiary and 5.7 percent non beneficiary households.

Sex of the household head is an important demographic variable of household welfare. This is for the reason that female-headed households are usually constrained by resources. They are mostly deprived in terms of resource endowment like land, labour and capital. Mostly they share crop their land to men farmers. Hence, it is hypothesized that female-headed households are less likely improved welfare than male headed households.

The t-test was run to test this hypothesis. The t-test showed that there is no statistical difference in household welfare between beneficiary and

non beneficiary households (t= -0219, p<.829). Moreover, chi-square test was also run to test the existence on systematic relation between household welfare and sex of the household head and the analyses shows that there is no significant systematic contingency relation between the two variables with chi value of 0.250 and p value of 0519.

There are interesting differences in the structure of PSNP beneficiary and non-beneficiary households, which suggest that certain demographic criteria, might have been used in targeting households for the PSNP. Thus, these findings suggest that female-headed and older-headed households are generally more vulnerable and more likely to need support than male-headed households.

The survey data also reveals that average family size is 5.7 persons per household. When we compare beneficiary households with the non beneficiary ones, we observe that there was no significant difference between beneficiary and non beneficiary households, with an average 5.9 and 5.6 family sizes per household respectively.

Family size is the other important variable with implications to household welfare. It was hypothesized that family size has an impact on household welfare status in such a way that large families tend to be improved welfare than smaller families. As it is hypothesized, the statistical analysis showed a significant difference in family size between beneficiary and non beneficiary households (t=4.467; P<0.01).

Such discrepancy in family size itself reflects the variation in the average dependency ratios defined as household members older than 65 and younger than 15 divided by the complement of this set present in the

households (0.89). Thus, beneficiary households tend to have larger proportion of dependents is 0.96 as opposed to 0.85 for non beneficiary households (Table 4.1).

It was also hypothesized that dependency ratio has impact on household welfare status. Hence, t- test was run to see if there is any difference in terms of dependency ratio between beneficiary and non beneficiary households and there is statistically significant difference in the mean dependency ratio of beneficiary households and non beneficiary households. The t- value is 1.709 and the corresponding p is 0.089.

Table 4.1 Household demographic characteristics, by PSNP status

Household characteristics	Beneficiary household head	Non beneficiary household head	Total
Female headed household head%	20.91	13.46	18.6
Male headed household head%	79.09	86.5	81.4
Old headed household (over 60 years) %	11.8	5.7	9.8
Average Household size	5.9	5.6	5.7
Average Household Labour	2.3	2.8	2.5
Dependency ratio	0.96	0.85	0.89
Average age of household head (in year)	44.5	39.17	42.78
Literate household head%	25	59.1	35.8
Illiterate household head%	75	40.9	64.2

Source: field survey 2007/08

In order to participate in public work, it is advantageous to have more labour in the household. Average labour available per household, measured according to ILO standard labour age range from 15 to 64, was

2.5 persons. There was no significant difference between beneficiary and non beneficiary households, with an average 2.3 and 2.8 labour units per household respectively (Table 4.1).

Age composition of the surveyed household depicts that an average age of respondents was 42.78 years (Table 4.1). Age of the household head is also regarded as an important variable with an impact on household welfare status; i.e older household are usually better than younger households (especially newly formed households) in terms of resource endowment. Thus it was hypothesized that younger households are less likely improved welfare than older households.

The t-test was run to test this hypothesis and the result showed that there is no statistically significant difference in mean age of the household heads between households, which are beneficiary and those which are not ($t=-0.337; P>0.1$).

Formal education of respondents varies from zero (illiterate) to grade 12 complete with majority of the sampled households. About 64.2 percent of the household heads in the study area are illiterate in the sense that they report not being able to read or write a simple statement while 35.8 percent of the beneficiary households have able to read and write. The share of illiterate individuals that are beneficiary household is 75 percent.

Literacy level of the household head is also an important variable mostly presumed to have impact on welfare status of the household. Thus it was hypothesized that households which are headed by relatively more educated heads are in a better position in terms of welfare than those whose heads are illiterate. The result of the t-test showed that there is no

significant difference between beneficiary and non beneficiary households in terms of years schooling of the household head (t=0.857, p).

4.1.2 Asset Base of the Households

4.1.2.1 Land and Livestock Ownership

Household characteristics do not inform us a great deal on the asset base the households can use to survive or to better off. Households in rural areas typically depend on the physical asset base available to them for their wealth creation. Access to sufficient land and livestock ownership were identified as the two crucial indicators of wealth and poverty in the study area.

Asset ownership or farmers economic status affects household welfare. Thus, the study examines the existence of any systematic relationship between asset ownership and beneficiary/non beneficiary among sample farmers. In this regard, the relations between household welfare and variables such as land holding size and livestock holding in LTU are examined.

Livestock were owned by 82.7 percent of the household covered by the survey. About 76.9 percent of beneficiary households owned at least one. Alternatively, a total number of livestock (measured by tropical livestock unit) owned by a household may be taken as a proxy for wealth of household. Tropical livestock unit of the non beneficiary is larger compared to the overall average and beneficiary groups (Table 4.2).

To test the hypothesis that non beneficiary households have larger livestock possession than the beneficiary households. T-test was run to examine if there is significant in livestock holding in terms of total tropical livestock units between the two beneficiary groups. The result of the test shows that the average livestock holding for non beneficiary households is 8.77 TLU and that of the beneficiary households is found to be 6.63 TLU. This difference in mean livestock holding in TLU is found to be statistically significant with t-value of -2.854 and p value less than 0.05.

Of all livestock species, oxen play a very important role in the farm economy of the mixed farming system of rural Ethiopia. This is because that they provide traction power for different farm activities and they serve as a store of value. Hence, oxen holding show are mostly positively related to welfare.

T-test was run to test the hypothesis that beneficiary households have larger oxen holding than the non beneficiary households. The result of the test shows that the average oxen possession for beneficiary households is 1.28 TLU and that of the non beneficiary households is found to be 1.85 TLU. This difference in mean oxen holding between the non beneficiary and beneficiary households is found to be statistically significant with t value of -4.49 and p value of 0.000.

A second measure of wealth was access to land. Land is obviously crucial in a country in which 85 percent of the population lives in rural areas. Average land holding size was 2.23 hectare, and the maximum landholding reported was 12 hectare. There was no significant difference in size of landholding between beneficiary household and non beneficiary

households, 1.77 hectare and 2.44 hector respectively. Data from survey result indicates that average cultivated land is 2.05 hectors (Table 4.2). Some studies in the country classify farmers with land holding size of 2 or more hectares as surplus producers. However, under the condition of Adami Tulu Jido kombolcha woreda, this amount of land per household could not allow adequate food production as the area is characterized by poor and erratic distribution of rain fall.

It was hypothesized that farm households which are beneficiary have less average farmlands than those which are non beneficiary households. The t-test was run to test this hypothesis and the result shows that the difference in farm size between beneficiary and non beneficiary households is not found to be significantly different with t value of -0.375 and p value greater than 0.10.

Table 4.2 Asset ownership of sample respondents, by PSNP status

Household characteristics	Beneficiary	Non-beneficiary	Total
Livestock per household in TLU	6.63	8.77	8.08
% owning livestock	76.9	85.4	82.7
Ox holding in TLU	1.28	1.85	1.47
Average land per household in hectar	1.77	2.44	2.23
Average cultivated land	1.52	2.41	2.05
Average grazing land in hectar	0.01	0.03	0.014

Source: field survey 2007/08

In terms of grazing land, average grazing land holding size was 0.01 hector, and the maximum grazing land reported was one hectares. There

was no significant difference between beneficiary and non beneficiary households in grazing land holding.

Despite the vital role of livestock, mainly in the rural economy, the attention giving to grazing land and livestock development is not significant. Nowadays, grazing land use seems to be neglected. Since grazing land is an important asset in the study area, grazing land productivity per household has to be improved as it can sustain a family and has indirect contribution to the national economy.

4.1.2.2 Productive and Household Durable Assets

In this part, we will discuss further the asset base of the rural households, where important differences exist across beneficiary and non beneficiary. Her we have to discuss the household durables owned and productive assets that provides further characteristics of the household wealth. In the study area, it was suggested that durables and productive assets provide other obvious means of distinguishing wealthy from poorer households.

For ease of presentation we report here some productive asset, of which plough, sickle, pick axe, axe, hoe, spade etc. Among the household covered by survey almost all 95 percent sample respondents have these productive assets at least one. The survey also provides information on some durables, of which TV, radio, mobile, jewellery and bicycle ownership provide interesting differences across households. The first two can be seen as important providers of information from outside the own community to individuals and therefore contributes to empowerment, while the last one increase mobility and can, therefore, be used in a productive way.

Table 4.3:- Durable ownership of sample respondents, by PSNP status in percent.

Durable Assets	Beneficiary	Non- beneficiary	Total
Mobile telephone	5	6	5
Radio	24	21	23
TV.	3	2	2
Bicycle	3	4	3
Jewellary (gold, silver)	**5**	6	5

Source: field survey 2007/08

4.1.2.3 Change in Household Assets

The objective of this paper was to analyze changes in asset value over the last year. For ease of presentation we report here change in asset values, together with the main reasons cited for the change in assets.

The survey result shows that, 64.5% beneficiary households reported improved asset over the last year. The main reason cited for the changes in asset was due to natural reproduction (85%). Very little (5%) cited changes in asset over the year due to acquisition of assets and none reported acquire assets for free. On the other hand, 35.55 beneficiary household reported their asset is not changed. The main reason is that beneficiary households used their asset to buy food and pay for non food expenditure. This shows that PSNP transfers did not provide complete protection of household assets as the size of cash or food transfers was

not adequate for these households to cover their food consumption deficits and other basic requirements.

Table 4.4: Change in household assets holding over the last year

Household Type	Improved	Not improved
Beneficiary	64.5	35.5
Non beneficiary	44.2	55.8
Total	58.03	41.97

Source: field survey 2007/08

There is no significant difference in the proportion of beneficiary and non beneficiary changes in asset over the last year. About 55.85 of non beneficiary households reported their asset is not changed. This shows that non beneficiary households are more inclined to sell livestock and other assets for food. This is probably due the fact that households facing food deficit allocate their resources to buy food rather than building their asset base and they sell their asset to meet family needs.

A successful safety net should discourage people from selling/consuming assets. Conversely, if food assistance is inadequate, we can expect a decline in assets. Hence, the prevalence of the food aid has minimized the sales of animals to buy food item and other household basic requirements.

4.1.3 Household Food security situation

This section considers alternative measures of household food (in) security derived from the Survey data, and compares the food security status of PSNP beneficiaries and non-beneficiaries. The PSNP appears to have self-reported food shortage over the last year and copping strategies adopted in response to food insecurity.

4.1.3.1 Household Food Shortage

Within our sample of 162 households, 92.6 percent reported experiencing food shortage over the last year, while only 7.4 percent of households said they did not experience food shortage. Table 4.5 further proves there was no clear difference in food shortage situation in beneficiary and non beneficiary households. To see the breakdown of the food shortage, about 47.71 percent and 35.85 percent of sampled beneficiaries and non beneficiaries have faced four to six months of food shortage followed by seven to nine months food deficit. About 4.59 percent and 3.77 percent of beneficiary and non beneficiary groups have suffered food shortage throughout the year.

Moreover, the survey result reveals that all sampled beneficiary households have experienced food shortage from two to twelve months. Only about 20.8 percent of non-beneficiary groups did not face food shortage. This shows that many non-beneficiaries also faced food shortages, which supports the argument that coverage of the PSNP is inadequate. Thus, most of the sampled households are in food deficit the whole year.

This implies that the coverage of the Productive Safety Net Program is too low relative to the level of need, on the basis of this proxy for chronic food insecurity. That is the transfers were too small or too unpredictable.

Table 4.5 Households experiencing food shortages, by PSNP status

Months suffered Food Shortage	Beneficiary	Non-beneficiary	Total
No food shortage	0.92	20.37	7.41
Up to 1 month	0.00	7.5	2.5
2-3 months	22.02	11.32	18.5
4-6 months	47.71	35.85	43.83
7-9 months	24.77	20.75	23.46
10-12 months	4.59	3.77	4.32

Source: Field Survey 2007/08

However, with no baseline data to compare against (2100 calories of food per day per person as a minimum nutritional requirements), it is impossible to state whether these self-reported levels of food insecurity are normal (despite being extremely high) or are unusually elevated for some reason. According to group discussion households experienced severe food shortages during the months of June, July and August, and least severe in November, December and January.

4.1.3.2 Copping Strategies

As indicated in the discussion so far, farmers in Adami Tulu Jido Kombolcha woreda have been affected by food deficit, poor asset possession and shocks, for instance, drought induced food insecurity. In the face of such adverse conditions, farmers used various coping strategies to survive sever food crisis.

There are various coping strategies adapted to the lengthy food shortage in study area. Some of the mechanisms are reducing meals per day,

decreasing the size of meals taken at a time, selling small ruminants to buy food, consuming wild foods, selling fire wood to purchase food and borrowing cash or food from better off neighbors.

Table 4.6: Distribution of household, by type of coping mechanism and PSNP status

Coping strategy	Beneficiary	Non-beneficiary	Total
Reducing number of meals	86.24	54.72	75.93
Reducing size of meals	66.97	69.81	67.90
Sell of livestock	33.94	67.92	45.06
Sell of draft oxen	7.61	2.64	5.13
Consuming wild foods	5.69	3.21	4.45
Borrowing of cash and/or food from better off neighbors and/or relatives	26.61	18.87	24.07
Postponing wedding and other ceremonies	5.69	6.42	6.05
Sell of fire wood/charcoal	29.36	24.53	27.78
Withdrawing children from school	12.84	18.87	14.81
Eating toxic or taboo food	5.50	3.77	4.94
Migrating labour outside the community	25.45	5.7	19.14

Note: Multiple responses are possible

Source: field survey 2007/08

The survey result reveals that about 86 percent and 54.7 percent of respondents covered by survey indicated that beneficiary and non beneficiary households reduced number of meals per day, respectively.

The next largest responses were taken by reducing meal size at a time (67.9 percent) followed by livestock sell (45.06 percent). They also sold their draft oxen as the surviving mechanisms for the food deficit in the study areas (Table 4.6).

Sell of fire wood, withdrawing children from school and borrowing of cash and or food from better off neighbors and or friends were the highest among stated coping strategies. Other less mentioned and used strategies were postponing wedding and other ceremonies, withdrawing children from school, and eating toxic or taboo food.

Figure 3: shows preparation of firewood and charcoal for selling as a livelihood mechanism for some of resource poor households.

Source: field photo 2007/08

Migrating outside the community in search for wage was also reported (25 percent). The key informants and group discussion also confirmed as some people have been out-migrating to different parts of the country during food crisis. Distress migration on the other hand, was only practices during sever crisis.

The survey finding shows that beneficiaries are more likely to cut back number of meals, to borrow cash and/or food, to sell draft oxen and to sell fire wood and charcoal. Non beneficiary households are more inclined to sell livestock and to reduce size of meals.

Generally, the copping pattern and strategies practiced in the study area suggests how most of the woreda farmers are Vulnerable and how food insecurity is serious. In this context, it is serious because there seem to be no mechanism to develop some of the useful coping strategies.

4.1.4 PSNP Participation and Community Asset Creation

4.1.4.1 PSNP Participation

The government of Ethiopia initiated a Productive Safety Net Program (PSNP) in 2004 with the objectives of reducing household vulnerability, improving household and community resilience to shocks, and breaking the cycle of dependence on food aid. Since 2005 the government of Ethiopia has attempted to link-short term relief efforts to long-term development by channeling a significant proportion of relief resources to able bodied beneficiaries through public work which is much different from employment generation scheme (EGS) (see Appendix 2). Relief assistance is provided to elderly and disabled through free food distribution. According to the Disaster Prevention and Preparedness Policy (DPPP), ideally 80 percent of relief food should be provided

through public works and 20 percent of relief food should be provide as free food distribution (NPDPM, 2004).

Among the beneficiaries of PSNP, 76.5 percent were participated on the public works while 23.5 percent received direct Support from the PSNP for free (Table 4.7). In order to gain a better understanding to what extent peoples were participated in public works, beneficiary households were also asked how many households including their family participated on public works between Januarys to June, 2007. The survey result shows that about 3.16 able bodied on average participated on public work.

Although, the respondents had some difficulties to recall the exact number of days worked since January 2007, we estimated that on average, a household including his families, worked for 9 days per a month and paid 171.74 birr per month. The PSNP wage rate on public works was set at 6 Birr per day, on the assumption that this would be enough to purchase 3 kilograms of stable food. But this is not enough to purchase 3 kilograms of stable food at current prices. Hence, attention must be paid for movements in food prices over time and space, if the intention of providing cash through wage rates.

Table 4.7: Distribution of household's participation, including their family, on public works

Public Work	Chetu Getu	Hula Lole	Total
Total number of public work beneficiary household head	78.8	66.7	76.5
Total number of direct support beneficiary household head	21.2	13.3	23.5
Average able bodied participated on public work	2.76	3.43	3.16
Average No of days worked per month	12	8	9
Payments per day per person in birr	6	6	6
Mean monthly income in birr	157.27	186.56	171.74

Source: field survey, 2007/08

Regarding time of payments, even though the reports from woreda DPP office indicated the public work participants were used to be paid per two months, significant number of household survey respondents reported the delay of time of safety net payment. About 65 percent of the respondents reported as they were not paid the aid when they needed. When the payment was late, they were used to sale the property at their hand or lend money from the better off to buy food and for other household requirements. Thus, the PSNP supposed to provide regular, predictable transfers to chronically food insecure household, to provide regular predictable transfers to chronically income insecure households.

4.1.4.2 Community Asset Created/rehabilitated

According to the Federal Food Security Policy of Ethiopia, the list of activities in safety net public works includes infrastructural development such as Soil/bund construction or maintenance, Check dam

construction or maintenance, hillside terracing/trace construction or maintenance, Water harvesting/pond construction, Road construction or maintenance, growing of seedlings and public building construction. As to the study area the main assets created by the public works were rural road construction and maintenance, soil bund construction, pond maintenance and growing of seedlings (Table 4.8)

Table 4.8: Community Assets Created/rehabilitated in Sample PAs (2006/07).

Activities	Unit	Chetu Getu	Hula Lole	Average
Road construction or maintenance	Km	15	9	12
Soil-bund construction	Km	11	4	10
Growing of seedlings	No	9,000	35,000	21,300
Community Pond maintenance	No	10	6	14

Source: Computed Using the Data Obtained from the Woreda DPP Office, 2007/08

Figure 4: Pond constructed in *Hurufa lole* in 2006 by PSNP Public work participants

Source: Field photo, 2007/08

In the field survey respondents were asked what benefits they obtain from the community assets of rural road, soil bunds, micro basins, planting seedlings and water harvesting. Very significant number of the respondents (85 percent) reported they benefited from the construction of rural infrastructure (roads). The main social benefits of road include:

i) Access to market ,
ii) Access to water sources,
iii) Access to health and school centers and
iv) Access to their relatives within the PA or outside the PA.

About 10% of the respondents have got advantages from soil bund and micro business constructions which has reduced soil erosion. Very few respondents reported that they have got advantages from pond

construction and growing of seedlings. This shows that the project did not solve the serious problem of the water faced by the community.

Figure 5: Road constructed or maintained in Chetu Getu in 2006 by PSNP Public work participants

Source: field photo, 2007/08

The focus group participants conformed that there is serious shortage of water for drinking for both human beings and their animals next to chronic food deficit in the area. People had to travel long distance to fetch water and drink their animals. As stated by the participants, one of the main reasons behind little effort given to harvesting water is that water harvesting techniques such as community pond construction and maintenance requires more energy and techniques than the other public works. So peoples prefer to do other simpler activities such as roads and soil bund activities.

The growing of seedling in the study area by the safety net program was carried out both at the household and community levels. About 80 percent of the seedlings dried due to lack of water and high evaporation and some seedlings were destroyed by animals before survival. Although area closure was another option in rehabilitating the forests in the study area, there was no action taken to use this technique. On the other hand the community discussion, the professionals at the woreda levels and the DAs have agreed that area closure is simple and effective technique for rehabilitating forests in the study area. Because the indigenous trees could easily adapt to the climatic condition of the area and can rehabilitate with in short period of time.

In safety net program not only to perform on public works or built public assets is enough, but also, considering the priority needs of the people is an important issue. Some of the reasons forwarded by the focus group participants include: i) Some of the proposed public works such as rural road construction and maintenance were not priority needs of the community in the PA and ii) The other public works such as water harvesting techniques (construction of community ponds) and growing of seedling are not also relevant activities to some PA because the soil is too sandy to hold water and the ground water contains high fluoride. Such water cannot be used for growing of seedlings and for drinking human beings and animals.

4.1.5 Use of PSNP Transfers

To understand more about the patterns of safety net, beneficiary households were asked to provide a breakdown of utilization of income earned to buy both food and assets/animals.

Majority of the households were using income earned from safety net to buy food and for other household expenditures such as kerosene, soap, medicine, education, land rent and agricultural inputs. Small proportion of the households used the cash earned from safety net program both to buy food and assets (basically to buy small animals such as goat and sheep).

Table 4.9 gives details. Not surprisingly, given the evidence presented in earlier chapters of severe food insecurity among these households, the overwhelming majority of respondents replied that they consumed about 83 percent of the food they received at home. A significant number of beneficiaries sold some of their PSNP food and consumed the rest (10 percent). Other strategies like selling the PSNP food to buy other foods (cheaper or more preferred food staples, or complementary food groups), giving it to other people or Sold all the food for cash were each adopted by only a handful of beneficiaries.

Table 4.9: Use of PSNP food transfers, by type and agro ecology

Use of food	Hurufa Lolee	Chetu-Geto	Total
Ate all the food	86	84.82	83.3
Sold some food and ate the rest	8	9.47	10.2
Sold food to buy other food	2	1	1.9
Gave some food away and ate the rest	1.33	1.91	1.7
Sold all the food for cash	1.12	1.62	1.5
Gave some food as payments, ate the rest	1.55	1.18	1.4
Gave the food to livestock for feed	0	0	0

Source: field survey, 2007/08

The survey data also reveals that cash transfers are used in a much more diverse way than are food rations. About 71.41 percent beneficiaries used some of their cash to buy staple food. But cash transfers were also used by 53.09 percent beneficiaries to buy non –food items, and 19.14 percent to buy clothes. In terms of investment, a significant number of households spent some cash on education and health costs. Small number of households spent some of their cash on purchased livestock and invested in their business (Table 4.10).

Participants in focus group discussion stated that the extent of utilization of cash as to buy food and for other expenditures varies from year to year. Whenever there is bad harvesting year, majority of the people use the cash to buy food whereas when the climate is good more cash can be shifted to cover socio- economic expenditures and to buy assets.

Finally, the household survey tried to establish the reason for respondent preferences (cash only, food only, or both food and cash). Accordingly, about 42.54 percent of respondents stated that they prefer food only, about 29.02 percent both food and cash percent and 28.44 percent household prefers cash. The household survey also tried to establish the reason for respondent preferences, by including an open-ended question asking respondents to explain their choice. A wide range of reasons were given for each type of assistance chosen. These are summarized as follows. The respondents prefer food rather than cash for the reason that food can be consumed directly. But if it is cash they may simply spend it. Food is better stored than money. The other reason stated by the respondent households that value of cash aid is less than the value of food aid.

Table4.10. Use of PSNP cash transfers for consumption and investment purposes, by households

Use of food	Expenditure type	Hurufa Lolee	Chitu-Geto	Total
Consumption	Bought staple food	83.1	69.09	71.41
	Bought non-food items	58.33	58.18	53.09
	Bought clothes	21.67	18.18	19.14
	Social obligation	6.67	8.18	6.25
	Paid tax	8.33	4.64	8.96
Investment	Bought fertilizer	4.67	5.45	4.67
	Paid for health costs	30.00	14.55	21.6
	Paid for education costs	50	56.36	50
	Bought seeds for farming	4.33	4.09	4.49
	Bought livestock	5.23	5.18	5.03
	Used for business	1.67	2.18	1.88

Note: Multiple responses are possible

Source: field survey 2007/08

Participants preferred cash rather than food for the reason that cash can be used for the purposes they want. Cash had contributed in fulfilling household's basic needs than food. The contribution of cash is more important to the household when the households have food at home or when there is good harvesting season, as cash can be saved for use for other purposes. In the evaluation of food aid transfer either as cash or food, both key informants and group discussion share the same idea as indicated in the above statements.

Table 4.11.Respondent preferences for type of assistance from the PSNP

Type of assistance	Chetu Getu	Hurufa Lole	Total
Food only	61.17	30.61	42.54
Cash only	11.43	39.39	28.44
Both food and cash	27.4	30	29.02

Source: field survey 2007/08

People also prefer not only food but also cash. Beneficiaries have both food and non-food needs, which cannot be met by receiving only one or the other. Food is needed when food prices are high, but cash is more useful after the harvest when food prices are low. Some food aid must always be sold for cash needs, while some cash aid must always be used to buy food, so half and half is the most useful combination. Some respondents argued that cash and food are useful at different times of year, and requested that the PSNP should provide transfers in the form of food when food is scarce and prices are high, and cash when food is readily available and cheap (i.e. after the harvest), rather than a combination of cash plus food being given every month.

4.1.6 Household Perception of Targeting

During field surveys households were also asked to rank the fairness of the overall management of the PSNP has to choose between totally fair, mainly fair, mainly unfair and totally unfair. Those perceiving safety net targeting as unfair were requested to provide the main reasons for qualifying the targeting as unfair. As it can be seen from the Table 4.12, about 5 percent of the households perceive targeting as totally unfair, 27 percent as mainly unfair, 62 percent considered targeting as mainly fair, and 6 percent as totally fair.

Table 4.12: Households Perception on Targeting Fairness

Respondents perception	**Percentages**
Totally unfair	5
Mainly unfair	27
Mainly fair	62
Totally fair	6

Source: field survey 2007/08

Explaining why they perceive food aid targeting as being unfair most of the respondents mentioned that the intermediate and better off households have the power to influence the *kebele* administration and the society. Moreover, members of the *kebele* administration at different levels and the food security task force committee were biased to their relatives and members of clans or "*gosa"*.

As the result of poor targeting the PSNP budget allocated to the *kebele* in the form of quota was shared to almost all dwellers of the *kebele*. Where the quota was smaller, the *kebele* administration was used to reduce the family size from each of the households including the very poor to balance the demand and the supply of the PSNP budget.

Geleto Usheto is living in *Hurufa Loole kebele*. He explained the share of safety net budget as follows.

> *I have a total of 8 families. I have one ox, three cattles, and 4 goats. I have no problem of land .I have 4 hectares of land. I used to give my own ox for one day for other people and will take others ox for other days. As the result I could not cultivate all of my plots and produce enough food. The recurrent drought in the area also matters to produce enough food. So my own production is enough to feed my families not for more than 7 months in a year. Now days thanks to the government, I used to cover the food shortages by the safety net program. I used to earn 150 birr per a month by the safety net program. However, I have one complain to say. That is, the kebele officials have reduced 3 of my families for the reason I could not know not .I would have to get 240 birr per a month (30 birr on behalf of each family members).*

On the other hand the very poor and the poor in *Hurufa Loole* kebele remained hungry. Information collected from the focus group discussion in *Hurufa Loole* kebele have pointed out that there are significant number of people in their *kebeles* who were suffering from food shortages. These peoples have been submitting complain to the concerned officials at different levels so that they can be food aided.

4.2 Econometric Analysis

There are two basic ingredients in data analysis- descriptive and econometric analysis. The descriptive analysis of the present work was presented in preceding section. This analysis can be transformed into a testable form by constructing an econometric model. Econometric model is the most convenient way of empirical measurement and testing. The model is specified in a way to appropriately represent the specific phenomena to be studied. Based on the data relevant econometric techniques are used to measure and to test empirically certain relationship among variables.

4.2.1 Description of Variables

The list of selected variables enlisted below believed to have different impacts on households' welfare. The impacts of PSNP transfers on the households' welfare will vary positively or negatively depending on the basis of the bundle of resources that the household is endowed with. Therefore, the following variables were being analyzed to determine whether the household welfare improved or not.

The model is based on the following hypothesis.

1. Beneficiary is a dummy variable and hypnotized that being a PSNP beneficiary increases the likelihood of change in asset value.
2. Family size is expected to have a negative relation with the probability of change in asset value.
3. Dependency ratio is presumed to have a negative relation with the probability of change in asset value.
4. Sex of the respondents is hypothesized that the probability of being wealth change for male headed households is more than female headed households and the sign of the coefficient is positive.
5. Age of the household head is hypothesized to have a positive relation with the probability of being improved wealth.
6. Household income, livestock own dummy, number of oxen, ox holding dummy, land under cultivation, educational level of households dummy and household labor capacity are entitled factors that have positive impact on wealth of household heads.
7. Coping strategy (proxy for household vulnerability) is hypnotized that as the number of coping strategies that a household engages increases, the more likely the household is to have experienced an improvement in wealth than others.

Table 4.13: List and description of variables

Variables	Description of the Variables
AGHH	Age of Household in years
SXHH	Sex of the household Head SXHH=1, if household Head is male SXHH=0, otherwise
FMSZ	Number of family members in a given household (in numbers)
EDUC	Educational Status of household head EDUC=1, if household Literate EDUC=0, otherwise
BNFHH	PSNP Beneficiary household head BNFHH =1, if households heads are PSNP Beneficiary BNFHH =0, otherwise
PBLPR	Number of Household members participation on public work
LINCM	LOG Household income
LVSTK	Availability of livestock assets within the household LVSTCK=1, if the household with livestock assets LVSTCK=0. Otherwise
LANDHL	Availability of cultivated land in hector
CPSTG	Number of coping strategies adapted by households(a proxy for household vulnerability)
OXWN	Availability of ox assets within the household OXWN =1, if the household with livestock assets OXWN =0 otherwise
NBOXN	Number of draft animals household own

4.2.2 RESULTS OF THE EMPIRICAL ANALYSIS

In order to test the impact of the transfer on household well-being or poverty, it is necessary to have some measures of well-being over time. We regressed changes in household welfare on a range of household characteristic variables and on whether the household was a PSNP

beneficiary or not. The data is analyzed using a statistical soft ware STATA version 9.

The findings are presented in Table 4.15 below. The Wald test used to measure overall significance of the model, which assumes the chi-square (X^2), is 33.93 for perobit model. This indicates that the joint null hypothesis of coefficient of all explanatory variables included in all models are zero is rejected at less than 1% level of significance. Another measure of goodness of fit of our model is McFadden's pseudo R^2, which is equivalent to coefficient of determination (R^2) in conventional regression model, is 15.39% percent, which shows an adequate fitness. This means that the model explains about 15.39% of variation in explained variable for the respective probit model (i.e., the goodness of fit of the model is adequate). However, it is not reported in many empirical works.

The regression results for the wealth changes where PSNP status is included as a binary variable indicating whether the participant was a beneficiary or not show that beneficiaries (BNFHH) are significantly more likely to have experienced an improvement in welfare over the last year than non-beneficiaries. The positive and significant coefficient on the beneficiary variable shows that the likelihood of being a PSNP beneficiary increases as the household moves from a decrease in welfare to an increase in welfare. In other words, those households experiencing an improved over the last year are more likely to be PSNP beneficiaries (at the 5% level). Households that have improved their welfare are also more likely to have more land under cultivation and engage in fewer coping strategies.

Among the demographic variables, the coefficient of sex (SXHH) of the respondents has been found to be statistically insignificant and has a positive sign. This shows that the probability of improved welfare was quite high with male headed households as compared to female-headed household.
Coming to income (LINCM) shocks, the coefficient of Log income has been found to be insignificant and has the expected sign. This shows that the likelihood of getting change welfare over the last year would increase with income changes.

The level of education (EDUC) of the household head has been found to be an important determinant of household welfare. The coefficient of this variable was statistically significant at 5 percent and has a negative sign. Coming to the level of education of the household head, we observe a inverse relationship between the level of education of the household head and change in welfare. This suggests that the probability of improved welfare would increase as the years of schooling rises, though statistically not significant.

Age (AGHH) of the household head has been found to be statistically significant and has the expected sign. This implies that older households enjoy more welfare changes than the younger ones. Also older families are more likely to have more participated in PSNP than younger ones.

The family size (FMSZ) of the respondents has been found to be statistically insignificant and has the nagative sign. This variable suggests that households having large family size are less likely than those with smaller family sizes have effects on household welfare. This implies that poor households (such as those having large family sizes) are more likely experienced welfare changes than small size households.

Table 4.14: Probit regression estimates for change in household welfare over the last year.

Variables	Coefficient.	Std. Error	Z
FMSZ	-0.0189159	0.0466745	-0.41
CPSTG	0.0653508	0.0828709	0.79
PBLPR	0.4788187***	0.1369176	3.5
BNFHH	0.5029515**	0.2459387	2.05
EDUC	-0.5269389**	0.2427556	-2.17
OXWN	1.117103***	0.3990046	2.8
NBOXN	-0.4886068***	0.1865768	-2.62
LVSTK	0.2833937	0.3161338	0.9
LINCM	0.1478074	0.1638522	0.9
LANDHL	0.0104924	0.0615406	0.17
AGHH	0.0113021**	0.0088481	1.28
SXHH	0.047422	0.3002055	0.16
_cons	-2.123144	1.450431	-1.46
Number of observation		162	
LR chi2(12)		33.93	
Prob > chi2		0.0007	
Pseudo R2		0.1539	
Log likelihood		-93.231108	

Note: - **, *** indicated significance at 5% and1% level respectively.

Household labour (HHLBR) has found to be statistically significant at less than 1 percent level of significance and has a positive sign. This suggests that as size of household labour increases, the more the probability of being PSNP beneficiary and changes in welfare over the last year.

The number of coping strategies (CPSTG) that a household engaged (a proxy for vulnerability) was found to be insignificant and has the

expected sign. This shows that as the number of coping strategies that a household engaged increases, the more likely the household is to have experienced change in asset value over the last year, though not statistically insignificant.

The coefficient of the land under cultivation (CULTLD) has been found to be insignificant and has the expected sign. The regression result suggested that as the size of land under cultivation increase, the probability of change in wefare increases.

Livestock ownership (LVSTK)(a proxy for asset ownership) was also insignificant. The positive sign of the coefficient suggests that household having livestock are likely to be wealthy than others. To a great extent, in rural areas, ownership of livestock is associated with poverty.

Ox holding (OXWN) (a proxy for wealth) was significant at 1% level of significance. The sign of the coefficient was positive. This due to the fact that households with more member of oxen have sufficient drought power and able to rent–in land in addition to their own and thus produce more crops unlike those, which are ox less. The result of the regression indicates that a unit change in oxen holding increases the probability of increase in asset.

Number of ox (NBOXN) the households own was significant at 1% level of significance. But the sign of the coefficient was negative. This is for the reason that households with less number of oxen are able to sell them and buy food grain. The regression result suggested that a unit increase in the number of oxen decrease the probability of increase in welfare.

Therefore, probit model estimation result shows that Productive Safety Net Program has enabled the people not only to protect their assets

(mainly livestock) which would have been sold to buy food and other household requirements but also to build their assets and has a significant effects on the welfare of beneficiary households.

CHAPTER 5.Conclusions and Policy Implications

5.1 Conclusion

The Productive Safety Net Program (PSNP), launched in 2005, is helping 7.2 million Ethiopians who are vulnerable to shocks such as droughts and floods. The Program tries to reduce the vulnerability of households that do not have enough to eat even when the weather and harvest is good. The program helps to prevent poor people from selling their assets or using their savings to buy food.

The present study aims to provide a preliminary analysis of the impact of PSNP transfers on targeted households in Adami Tulu Jido Kombolcha Wereda. This includes examining the economic behavior of beneficiaries, and how that behavior is modified by the Productive Safety Nets Program by analyzing the use of cash and food transfers through a combination of quantitative and qualitative fieldwork undertaken at household and community levels. The data collected was analyzed using statistical soft ware STATA version 9. Based on the data analysis the following are the major findings of the study.

The study looked at the household characteristics and the descriptive result shows that there are interesting differences in the composition of PSNP beneficiary and non-beneficiary households, which suggest that certain demographic criteria might have been used in targeting households for the PSNP. Thus, female-headed and older-headed households are generally more vulnerable and more likely to need support than male-headed households.

With regard to household asset base, a total number of livestock (measured by tropical livestock unit) owned by a household may be taken as a proxy for wealth of household. Tropical livestock unit of the non beneficiary is larger compared to the overall average and beneficiary group. Land is obviously crucial in a country in which 85 percent of the population lives in rural areas.

There was no significant difference in size of landholding between beneficiary household and non beneficiary households. In terms of grazing land, individual grazing land holding is not optimal for proper grazing land management. But grazing land is also very important as crop land, especially in mixed farming system. The effect of free grazing is reflected, in the continuous diminishing of vegetation cover, with consequent total land degradation due to uncontrolled animal movement. The distraction of vegetation cover increases run-off due to reduced soil infiltration, as a result of topsoil compaction.

Among the household covered by survey almost all 95 percent sample respondents have these productive assets at least one. The survey also provides information on some durables, of which TV, radio, mobile, jewellery and bicycle ownership provide interesting differences across households. The first two can be seen as important providers of information from outside the own community to individuals and therefore contributes to empowerment, while the last one increase mobility and can, therefore, be used in a productive way.

In terms of asset changes non beneficiary households are more inclined to sell livestock and other assets for food. This is probably due the fact that households facing food deficit allocate their resources to buy food rather than building their asset base and they sell their asset to meet family needs.

A successful safety net should discourage people from selling/consuming assets. Conversely, if food assistance is inadequate, we can expect a decline in assets. Hence, the prevalence of the food aid has minimized the sales of animals to buy food item and other household basic requirements.

The PSNP appears to have targeted households well according to several indicators of food insecurity. The survey result shows that all sampled beneficiary households have experienced food shortage from two to twelve months. This shows that PSNP beneficiaries were more likely to experienced food shortages than non-beneficiaries but these differences were not very large. Many non-beneficiaries also faced food shortages, which supports the argument that coverage of the PSNP is inadequate.

Concerning household coping mechanisms to the problem of food shortage, a number of strategies were reported by respondents. Coping mechanisms have been pointed out from reducing meals to eating toxic or taboo foods. The survey finding shows that beneficiaries are more likely to cut back number of meals, to borrow cash and/or food, to sell draft oxen and to sell fire wood and charcoal while non beneficiary households are more inclined to sell livestock and to reduce size of meals.

As to the study area the main community assets created by the public works were rural road construction and maintenance, soil bund construction, pond maintenance and growing of seedlings. Although the participation of the community on the public works remained below the available labor some of the problems which had been faced by the community were reduced after the existence of safety net programs in the study area. Thus, PSNP projects have contributed a lot in solving the

problem of road and soil erosion. However, the project did not solve the serious problem of the water faced by the community and deforestation.

The focus group participants conformed that there is serious shortage of water for drinking for both human beings and their animals next to chronic food deficit in the area. People had to travel long distance to fetch water and drink their animals. As stated by the participants, one of the main reasons behind little effort given to harvesting water is that water harvesting techniques such as community pond construction and maintenance requires more energy and techniques than the other public works. So peoples prefer to do other simpler activities such as roads and soil bund activities.

About 80 percent of the seedlings dried due to lack of water and high evaporation and some seedlings were destroyed by animals before survival. Although area closure was another option in rehabilitating the forests in the study area, there was no action taken to use this technique. On the other hand the community discussion, the professionals at the woreda levels and the DAs have agreed that area closure is simple and effective technique for rehabilitating forests in the study area. Because the indigenous trees could easily adapt to the climatic condition of the area and can rehabilitate with in short period of time.

Regarding time of payments, even though the reports from woreda DPP office indicated the public work participants were used to be paid per two months, significant number of household survey respondents reported the delay of time of safety net payment. When the payment was late, they were used to sale the property at their hand or lend money from the better off to buy food and for other household requirements.

With regard to the use of transfers obtained from safety net program at household level, the finding shows that significant number of the households used income earned to buy food and for other household basic expenditures. Not surprisingly, given the evidence presented in earlier chapters of severe food insecurity among these households, the overwhelming majority of respondents replied that they consumed the food they received at home. Thus, safety net program has enabled the people not only to protect their assets (mainly livestock) which would have been sold to buy food and other household requirements but also to build their assets.

As the result of poor targeting, the PSNP budget allocated to the kebele in the form of quota was shared to almost all dwellers of the kebele. Where the quota was smaller, the kebele administration was used to reduce the family size from each of the households including the very poor to balance the demand and the supply of the PSNP budget.

The probit regression analysis result shows that among other variables included in the study household labour, beneficiary dummy, education dummy, ox holding, number of oxen and age have been significant in determining household welfare. As it was hypostasized beneficiary, ox holding and household labour are positively related to the probability of increase in asset value. Age, education dummy and number of oxen negatively and strongly related to changes in asset value over the last year. Therefore, the probability of improving welfare of the respondents is significantly affected by households being beneficiary of safety net program.

5.2 Policy Implications

On the basis of research findings the following possible area of interventions are forwarded for considerations in future safety net program intervention endeavors.

Cash transfer programs can deliver measurable welfare benefits and stimulate economic growth. Preconditions for success in cash schemes include transparent targeting criteria, automatic and robust delivery mechanisms and transparency about people's entitlements. Conditionality may also help. With these conditions in place, cash schemes have the potential to be less corruptible than in-kind transfers, and will almost certainly cost less to administer. Early attention to rigorous impact evaluation can help to identify where cash transfers are successful, and generate political and donor commitment to supporting them.

Longer-term social protection programs may have a role in enabling people to deal with shocks and stresses more successfully. There is potential for exploring links between long-term social protection programs and emergency relief. Such policy has to remove the structural and administrative constraints facing the poor, which a little extra spending power alone cannot do.

In the development context, there has been considerable interest in cash transfers to reduce poverty among those unable to engage fully in the productive economy (widows, the elderly etc.), to stimulate access to health and education, and to access agricultural inputs. These groups of the society are relatively deprived to many important productive resources. In the past, Ethiopia addressed this problem through a

system of annual emergency appeals. The appeals saved many lives but did not address longer-term needs of the poor.

Food aid is a scarce resource that could be allocated so that it has the greatest impact on the problem to be addressed. It was unpredictable for both planners and households money and supplies often arriving too late to be of use. The delays and uncertainties meant that the help provided could not be used effectively and did little to protect household assets and livelihoods, generate community assets, or prevent environmental degradation. Hence, PSNP has to be paid to the beneficiaries on time. When the household received cash on time, they can use it for purposes they want. Moreover, the household asset can be protected which otherwise spent or sold because of the delay of the income from PSNP.

Poverty and food security move together. Thus, poverty alleviation should be given priority through promotion of community asset creation. Developing social overhead capital in terms of roads, pond, soil bund, etc. paves the way for development of productive activities and the reduction of poverty. As to the study area, Adami Tulu Jido Kombolcha wereda, even though the public works has created vital community assets, still it is below the available labor. So the community has to be mobilized and the available labor could be efficiently utilized so that long-run developments can be obtained.

The necessity of water basically in drought prone area is unquestionable. Shortage of water has been the basic problem in the area under study. But by the opportunity provided through the safety net program little attempts have been made to solve the problem of water through water harvesting technologies. Therefore, priority should be given to water harvesting activities under sub-projects in public works.

Defective targeting procedures in indentifying program beneficiary households have to be revised. Because of food aid is a scarce resource that could be allocated, it is impossible to share for all households in sufficient amount at a time. So priority has to be given to relatively poor households. Poor targeting may lead to hungry people not to receive sufficient amount of aid. Therefore, targeting in the study area should be revised based on the principles of the safety net beneficiaries targeting guideline adopted in 2005. Targeting tasks and responsibilities should not be totally left for the PA leaders. There should be a close supervision of the woreda officials.

Finally, there should be continuous follow up and monitoring of the PSNP program. The line department at woreda level have to follow and monitor the performances of the projects. Proper and sustainable management, supervision and evaluation of the program are very crucial for the success and effective performance of the safety net program. Empowerment of the community to plan, supervise and monitor the safety net activities has also been enhanced.

References

Alwang, J.(2001). Vulnerability: A View from Different Disciplines. World Bank Social Protection Discussion Paper No.0115.

ATJKADO(2006). Adami Tulu Jido Kombolcha Agricultural Development office.

Barrett, C.B.(2001). Income Diversification and Livelihoods in Rural Africa: Cause and Consequence of Change. Food Policy 26(4), 315–333. Ellis, F. 2000. Rural Livelihoods and Diversity in Developing Countries. Oxford, UK, OUP.

Behru, S(2005). Assessment of food aid project of European Union in Adami Tulu Jido Kombolcha Werda

CA (2001). Food Aid impact study in Mada Walabu woreda, Ethiopia

CSA (1999). Report on the 1996 Welfare Monitoring Survey. Statistical bulletin No.205. Addis Ababa, Ethiopia.

Clay, D. Dannial Molla and Debebe Habtawold(1997). Food Aid Targeting in Ethiopia: a study of household Food security and Food Aid Distribution. Working paper 12, Grain Marketing Research project. Ministry of Economic Development and cooperation, Addis Ababa, Ethiopia

Degnew, E. (1994). Food Grain Marketing, Distribution Mechanisms and problems in wollo and adjacent Administrative Zones: implications for household food security and policy. A research

report prepared for save the children (UK) in Ethiopia, Addis Ababa.

Debebe, H.(2000). Food security and sustainabile livelihood in ethiopia. Forum for Social Studies. March, 2000.

Dessalegn, Rahmato (1990). "Food Aid and Food Dependency in Ethiopia" in Eshetu Chole, Mlay, W. and OYugi, W (eds). The crises of Development Strategies in Eastern Africa, OSSREA Book series, Addis Ababa, Ethiopia.PP.54-67

Devereux, S.(1998). The impact of WFP development assistance: Effective Approaches for Food Aid. Time for change Food Aid Development, Rome, Italy

_____(2002). Social Protection for the Poor: Lessons from Recent International Experience, Institute of Development Studies. Working Paper No.142. Brighton, UK; World Bank. 2001. Social Protection Sector Strategy. Washington DC;

DFID(2005).Ethiopian Productive Safety Net Program: Project Memorandum, Addis Ababa

_____ (2006). Assessment of trands in PSNP project, Addis Ababa

ESFEDD (2004). Physical and socio-economic Profile of Oromia Regional State. East Showa Zone Finance and Economic Development depertment

FSDPPO(2007). Adami Tulu Jido Kombolcha woreda Food security Disaster Prevention and Preparedness office

Getachew Driba (1995). Economy at crossroad: Famine and food security in rural Ethiopia, Addis Ababa, Care International Ethiopia

Green, (1997). Econometric Analysis. Third edition. Prentic Hall.

Hadgu Bariagaber (1996). Demographic Influences of Food Availability and Incidence of Under Nutrition and Malnutrition. The case of private and co-operative. Household in Arsi Region (Ethiopia) in the proceedings of the fifth Annual conference on the Ethiopian Economy, AAU and EEA, Addis Ababa.

Holzmann, R.(2003). Social Risk Management: The World Bank's Approach to Social Protection in a Globalizing World. Washington DC, World Bank.

IFPRI (1997). Food and Policy Issue, Rome, Italy

_____(2005). Food and Policy Issue, Rome, Italy

Jazairy, I. Almagir, M.,and Panuccio,T(1992).the state of World Rural Poverty: An Inquiry into its Causes and consequences. New York University Press for the International Fund for Agricultural, Rome.

Keddeman, W.(1998). Of nets and assets: Effects and impacts of Employment Intensive Programs. A Review of ILO Experience, Development Policy Department International Labour office, Geneva.

Masefield, Abi (2001). "Chronic Food Insecurity in Ethiopia: Looking through a Livelihood lens" in Yard Amare (ed). Food Security and Sustainable Livelihoods in Ethiopia Forum for Social Studies, Addis Ababa, Ethiopia.

Mesfin, B. and Brady, D. (1997). Food Aid Impacts on Safety Nets: Theory and Evidence: A Conceptual Perspective on Safety Net. American Journal of Agricultural Economics. Vol.79, no2

MoFED(2002). Poverty Profile of Ethiopia. Ministry of finance and Economic Development, Addis Ababa, Ethiopia

MoARD(2004).Productive Safety Net Program implementation Manual. Government of Federal Democratic republic, Ministry of Agriculture and Rural Development, Addis Ababa.

Nayyar, R(2002). The Contribution of Public Works and other Labour Based infrastructure to Poverty Alleviation, the Indian Experience. Recovery and Reconstruction Department, International Labour office, Geneva.

NPDPM(1993). National Policy on Disaster prevention and management. The Federal Democratic Republic of Ethiopia, Addis Ababa.

_____(2004). National Policy on Disaster prevention and management. The Federal Democratic Republic of Ethiopia, Addis Ababa.

NRI/IFPRI (1994). Food Policy in Sub-Saharan Africa: A New Agenda for Research and Donor assistance. The Trinity Press, Worcester, and London.

OESPO(2003). Adami Tulu Jido woreda Based Development Progarm: Oromia Economic Study Project office, *Finfinne*.

OFSDPPC(2005). MoU intervention action plan, in chronically food insecure woreda in Oromia regional State.

Ravallion, M.(1990). Reaching the Rural Poor Through Public Employment. Arguments, Lessons and Evidences from South Asia.

Rogers,B. and Coates, J.(2002). Food Based Safety net Primer Series, Washington, DC the World Bank.

SCF (2005). Study by SCF (2005) on the impact of food aid in North Wello, South Wello and East Hararghe

Shinha, S.and Lipton, M. (1999.) Damaging Fluctuation, Risk and Poverty: A Review. Brighton, UK, University of Sussex. Institute of Development Studies. Working Paper No.142. Brighton, UK; World Bank. 2001. Social Protection Sector Strategy. Washington

Sisay Asefa (2003). Rural Poverty Food insecurity and Environmental Degradation in Ethiopia: a case Study from South Central Ethiopia. Second International EAF Symposium on Contemporary Development Issues in Ethiopia, Addis Ababa Ethiopia.

USAID (1991). Food for Work: A Review of the 1980's with Recommendations for the 1990s, Washington, DC.

World Bank (2004). Productive Safety Net Project in support of the First Phase of the PSNP of Ethiopia. Document of the World Bank Report No.29767

WFP(2003). Food Aid Use and Impact Survey in Ethiopia

WFP (2004).Vulnerability, Social Protection, and Food-based Safety Nets. Theory, Evidence, and Policy Underpinnings. Rome. Mimeo.

WFS(1996). World Food Summit, Rome, Italy

Appedices

Appendex1: Productive Safety Net Program Household Questionnaire

(PSNP Survey Questionnaire)

Assessment of the impact of Productive safety Net Transfers on Households welfare: The case of Adami Tulu Jido Kombolcha Wereda, East Shoa, Oromia Regional State.

Part 1: General information

1.1 Serial numbers (code) _____
1.3 Name of Peasant Associations PAs (kebele)_____
1.3 Name of household Head /Household ID_____
1.2 Name of the Village_____
1.4 Name of enumerator_____
1.5 Date of interview_____
1.6 Supervised and checked by_____
1.7 Status 1 = ok 2 = no (Comment if any problem)
_____ _____ _____ _____ _____

PART 2: Data Considering Socio-demographic of household Head and other members of household.

2.1 Demographic characteristics of household head and other members of household

HH ID	Name of HH/ members	Marital Status	Relation to the household head	Sex M=1 F=2	Age in year	Educational status(Literate) **1= Yes 2 = No** If yes, Highest grade Level completed	Major occupation During last month	Labour capacity
A	**Household head**							
1								
B	**Household Members**							
1								
2								
3								
4								
5								

Relationship to Head
1. Head of household
2. wife
3. son or daughter
4. son/daughter in law
5. grandson/daughter
6. mother or father
7. father/mother in law
8. brother or sister
9. other relatives
10. no relationship
11= don't know

Occupation in the last month:
1. Cultivates own land or family land
2. Herding
3. Unpaid domestic work
4. Other non paid work
5. Casual paid work (handicraft, trader, wage worker, artisan, etc)
6. Petty trade
7. Student
8. Ill/disabilities
9. Others(specify) _
10. D/K

Marital status
1. Married
2. Single
3. Divorced, Separated
4. Widowed
5. Other (specify)
6. No answer/not applicable

Education
1 1st Grade
2 2nd Grade
3 3rd Grade
4 4th Grade
5 5th Grade
6 6th Grade
7 7th Grade
8 8th Grade
9 9th Grade
10 10th Grade
11 Above 10th Grade
12 Adult literacy program
14 Other Specify)__

Labour capacity
1 young child (too young to work)
2 working child (herding livestock; domestic chores; childcare; may be hired or fostered out)
3 adult (able to do full adult workload)
4 working elderly (not able to do full adult workload)
5 partially disabled (able to do light work only)
6 permanently unable to work (physically or mentally disabled, or non-working elderly)
7 chronically ill (unable to work for the past 3 months)

Part 3: Data concerning Socio-economic Conditions of household

3.1 Land Holding

3.1.1 Did your HH own land during the last production year? **Yes=1 No=2**

31.2 If yes, what area of land do your HH own during the last production year? (Use hector or local unit)

Cultivated land_____

Grazing land _____

Fallow land_____

3.2 Crop production

3.2.1 Cultivated area and production in the last 12 months?

No.	Type of Crops grown	Total Production in kilogram or (local unit)	Consumed at home	Sold	Price per kg sold
1	Teff				
2	Barley /gebs				
3	Wheat/sende				
4	Maize/bekolo				
5	Sorghum /mashila				
6	Oats /Aja				
7	Vetch/Guaya				
8	Lentils/Miser				
9	Cow peas/Ater				
10	Horse beans /Bakela				
11	Chick peas/shinbera				
12	Fenugreek/Abesh				
13	Haricot beans /Boloqe				
14	Vegetables /Attkilt				
15	Others,(specify)				

3.3. Livestock Ownership

3.3.1 Livestock ownership in the past 12 months.

Sr. No.	Type of Livestock	Number owned currently	Number owned last year	Number of livestock sold	livestock sold (in Birr)
1	Oxen				
2	Cows				
3	Heifers				
4	Bulls				
5	Calves				
6	Sheep				
7	Goats				
8	Horses				
9	Donkeys				
10	Mules				
11	Beehives				
12	Others specify				

3.4 Household Assets (Productive Assets, and Household Durables)

3.4.1 Please indicate ownership of assets in last 12 months?

Sr. No.	Assets	Are You and your household member have the following assets **Yes=1 No=2**	Indicate the price of each items(current replacement cost of one)
A	**Productive assets**		
1	Plough		
2	Sickle (*machid*)		
3	Pick axe (*doma*)		
4	Axe (*metrebia*)		
5	Hoe (*mekotkocha*)		
6	Spade (*akefa*)		
B	**Household durables**		

1	Mobile telephone		
2	Radio		
3	Television		
4	Jewellery (gold, silver)		
5	Bicycle		

3.4.2 Does your household asset value improved over the last year? **Yes=1 No=2**

3.4.3 If yes, why?

No	Reason	
1	Livestock reproduced	
2	We bought these asset	
3	Someone gave as this asset for free	
4	another reason (specify): _____	

3.4.3 If no, why?

No	Reason	**Yes=1 No=2**
1	Sell the asset to buy food	
2	Exchange the asset for food	
3	Sell the asset to pay for health expenses	
4	Sell the asset to pay for education expenses	
5	Sell the asset to meet social obligations (e.g. wedding)	
6	Some livestock asset die due to drought (lack of pasture and water)	
7	another reason (specify): _____	

Part 4: Household income and EXPENDITURE

4.1 Please indicate the amount of money income your household earns on the following activities?

N.O	Item	Did anyone in your household do this activity in the last year? **1= Yes 2= No**	If yes, total monthly income earned while doing this work?	Total annual income earned while doing this work?
1	Crop production			
2	Sale of livestock			
3	Sale of livestock products (Milk, butter,			

	cheese, egg, skin, honey etc)			
4	Poultry rearing and sales (chickens, eggs, etc.)			
5	Sale of vegetables and fruits			
6	**Sale of forest products** (Selling firewood or charcoal, Selling grass or fodder for livestock, etc)			
7	**Off farm activities (**Pottery, Blacksmithing, petty Trading, etc)			
8	PSNP Transfers(food/cash)			
9	Other (specify): ___			

4.2 How much do you usually spend on food and non food items?

A. Food items_____Birr per month B. non food items_____birr per month

4.3 Please indicate the amount of money your household spent on the following non-food items?

No	Item	Last one month (in birr)	Total annual expenditure
1	Land taxes		
2	Medical expenses		
3	Education		
4	Clothing		
5	social contribution (Maheber', Church/mosque contribution, etc)		
6	Farm inputs(fertilizer, improved seed, etc)		
5	Other expenses(coffee, Kerosene, Salt, pepper & spices, etc)		

Part 5: Food security, and coping mechanisms over the last 12 months

5.1. During the last year, did your household suffer any shortage of food to eat? **Yes=1 No=2**

5.2 For how many months are you able to cover all your consumption needs during the last 12 months?_____months

5.3 if it is shortage of food , how do you overcome the problem or what did your household do to survive?

Coping strategy	**Yes=1 No=2**

reducing number of meals	
reducing size of meals	
sell of livestock	
sell of draft oxen	
Consuming wild foods	
borrowing of cash and/or food from better off neighbors and/or relatives	
postponing wedding and other ceremonies	
sell of fire wood	
withdrawing children from school	
eating toxic or taboo food	
Migrating Labour outside the community	

5.4 Has your household received any food or cash from the new government Safety Net Program? **Yes=1 No=2**

5.5 If yes, continue to **part 6.**

5.6 If NO, go to **part 7.**

Part 6. Local participation in PSNP

6.1 If yes, from which program the household received support in the last 12 months?

1=Public Work 2=Direct support

6.2 If public Works, list down the number of participated and days of participated in public work?

a) Number of Participated? _____ b) Days of participated in public work per month? ____

6.3 How much food or cash did your household received in the last 12 months?

Type of assistance	**Yes=1 No=2**	Amount received in birr/kg
Direct support / transfer(food)in kg		
Direct support / transfer(cash)in birr		
Food for work, (public works)in kg		
Cash for work, (public works) in birr		
Others(Specify)_____		

6.4 Use of PSNP food transfers for consumption purposes?

Use of food	**Yes=1 No=2**
Ate all the food	
Sold some food and ate the rest	
Sold food to buy other food	
Gave some food away and ate the rest	
Sold all the food for cash	
Gave all the food to others as a payment	
Gave the food to livestock for feed	
Gave some food as payments, ate the rest	

6.5 Use of PSNP cash transfers for consumption and investment purposes?

Use of food	Expenditure type	**Yes=1 No=2**
Consumption	Bought staple food	
	Bought non-food items	
	Bought clothes	
	Social obligation	
	Paid tax	
Investment	Bought fertilizer	
	Paid for health costs	
	Paid for education costs	
	Bought seeds for farming	
	Bought livestock	
	Used for business	

6.6 Do you prefer food rather than cash as assistance? Food = **1, cash =2,** both food and cash =**3**

6.7 If you prefer CASH, why? _____

6.8 If you prefer food why? _____

6.9 If both, why? _____

6.10 did you paid cash or food on time as per the schedule? **Yes=1 No=2**

6.11 What do you think made your households to be eligible for Public Work?

No	Reason	**Yes=1 No=2**
1	little/no livestock	
2	crop production failure	
3	small/ no land ownership	
4	family size	

6.12 Has the household benefited from public work (built infrastructures) in the last years? **Yes=1 No=2**

6.13 If yes, do these infrastructures affect the condition of your HH?

No	Type of activities	**Yes=1 No=2**
1	improved access to schooling	
2	increased agricultural activity	
3	better access to market	
4	improved access to water	
5	improved access to health service	
6	improved access to extension services	

6.14 Asset protection and building because of PSNP?

No	Trends	**Yes=1 No=2**
1	Have you enrolled more of your children in school this year than last year?	
2	Have you kept your children in school for longer this year than last year?	
3	Have you used healthcare facilities this year more than last year?	
4	Have you consumed more food or better food this year than last year?	
5	Have you avoided having to sell household assets to buy food this year?	
6	Have you avoided having to use your savings to buy food this year?	
7	Have you retained your own food production to eat yourselves this year, rather than selling it?	
8	Have you acquired any new household assets (e.g. livestock, roof, bicycle, radio, plough, land)?	
9	Have you acquired new skills or knowledge which has increased your income this year?	

Part 7. EXCLUDED (NON-BENEFICIARY) HOUSEHOLDS

7.1 Why was your household **not** selected to receive food or cash from the new government Safety Net program?

Reason	**Yes=1 No=2**
1. We are not so poor as the selected households	
2. We have enough food	
3. We own livestock	
4. We have some land/ enough land/ or better quality land	
5. We receive family support or remittances	
6. We have other income	
7. Our household did not receive food aid or emergency cash transfer in previous years	
8. I don't have friends or relatives among the decision-makers	
9. We are not participating in other food security programs	
10. We are not registered on the kebele household list	
11. Our household is not able to work on PSNP projects	
12. Our household is not willing to work on PSNP projects	
13. I don't know	
14. Other reason (specify):_____	

7.2 Who decided which households in the community would receive the food or cash?

N.o	**Who decided?**	**Yes=2 No=1**
1	The D.A. decided	
2	The community (we all decided together)	
3	Kebele Food Security Task Force	
4	Kebele Council or Administration	
5	Wereda Food Security Task Force	
6	There was no selection – everyone in the village received something	
7	Wereda Council or Administration	
8	Community Food Security Task Force	
9	Other (specify):_____	

*7.3 D*o you think the decision was fair, totally faire, unfair, totally unfair?

1= fair, 2=totally faire, 2=unfair, 2=totally unfair

7.4 If **NO** (totally unfair), did you complain? **Yes=2 No=1**

7.5 If YES (complained), was your complaint successful? **Yes=2 No=1**

Please explain what happened:

_____

THANK YOU VERY MUCH AND HAVE A VERY NICE TIME!

Feb, 2008

Appendix 2: Difference between the previous Employment Generation Schemes (EGS) and the new Safety Net public Works

activities	***Previous EGS***	***New Safety Net Public Works***
Framework	♦ Annual emergency ♦ No certainty on the amount of resources for woredas. ♦ Due to the nature of the annual appeal process, resources often arrive too late for a public works program given the season.	♦ longer-term productive vision ♦ External resources will be provided on a multi-annual basis through the safety net budget line of the Government budget. This ensures availability of resources from the start of the year allowing public works to be undertaken at the most appropriate time.
Resources	♦ Resources often inadequate for the needs of the food insecure. ♦ Because of the nature of the emergency response, limited resources were available for capital inputs and administration of program, greatly limiting program effectiveness.	♦ Budgeting will be based on an improved needs assessment to ensure that woredas have sufficient resources to meet the needs of the food insecure. ♦ Woredas will be given an appropriate budget for capital inputs in to public works and other supporting activities. This will improve the quality of public works assets created and where appropriate allow for more technically complex projects.
Planning	♦ Public works were not planned as part of broader development strategy for the woreda, and did not take in to account issues of maintenance and coordination with other activities. ♦ Often lacked appropriate	♦ The program will be based on community priorities outlined in the woreda development plan. It will therefore be carefully coordinated with other development activities and program to ensure maximum synergies, and place public works in the context of long term development strategy for the woreda.

	consultation of the community to ensure relevance and ownership of assets created.	♦ It will ensure that maintenance and sustainability issues are directly addressed within the woreda budget. ♦ It will focus on the participation of the community in determining priorities and engaging them in maintenance of those assets where appropriate.
Institutional Arrangement Training	♦ No clear institutional responsibility for EGS activities ♦ Limited training and technical assistance to ensure minimum standards of assets created.	♦ Training will be provided as needed at the woreda and kebele levels to ensure that above outcomes are realized. ♦ Improved technical assistance in the planning, design, and implementation of public works will ensure relevance, minimize maintenance requirements, and maximize sustainability.

Source: Ministry of Agricultural and ural Development PSNP Implementation Manual, 2002.