An Assessment of the Role of Productive Safety Net Program on Household Resilience: The case of Dodota District of Oromiya Region

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A thesis summated to Addis Ababa University
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Declaration Letter

I, Hermela Merid confirm by my signature that this thesis is my original work and has not been presented for a degree in any other university, and that all sources of material used for the thesis have been duly acknowledged.

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<tr>
<td>EFD</td>
<td>Environment for Development</td>
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<tr>
<td>CIDA</td>
<td>Canadian International Development Agency</td>
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<td>CFST</td>
<td>Community Food Security Task Force</td>
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<td>IFPRI</td>
<td>International Food Policy Research Institute</td>
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<td>IEG</td>
<td>Independent Evaluation Group of the World Bank</td>
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<td>FGD</td>
<td>Focus Group Discussion</td>
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<td>HABP</td>
<td>House Hold Asset Building Program</td>
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<tr>
<td>MoFED</td>
<td>Ministry of Finance and Economic Development</td>
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<td>MoLSA</td>
<td>Ministry of Labor and Social Affairs</td>
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<td>MoA</td>
<td>Ministry of Agriculture</td>
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<td>MDGs</td>
<td>Millennium Developmental Goals</td>
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<td>PSNP</td>
<td>Productive Safety Net Program</td>
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<td>PIM</td>
<td>Program Implementation Manual</td>
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<td>ODI</td>
<td>Overseas Development Institute</td>
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<td>SSN</td>
<td>Social Safety Nets</td>
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<td>DDFEDO</td>
<td>Dodota District Finance and Economic Development Office</td>
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<tr>
<td>SP</td>
<td>Social Protection</td>
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<tr>
<td>USAID</td>
<td>United States Agency for International Development</td>
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<td>WB</td>
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Abstract

This research attempted to assess the role of productive safety net program on household resilience and examined the coping mechanisms of farmers at times of stress in Dodota district, of Oromiya Region. Purposive, stratified proportionate random sampling and simple random sampling techniques were employed to select sample respondents. A total of 290 households were selected for the study. The instrument developed was survey questionnaire and combination of other data collection techniques like focus group discussion and key informant interview. Both qualitative and quantitative data were gathered for the study. Descriptive statistics like frequency, percentage, and inferential statistics such as t-test and $\chi^2$-test were employed to see mean difference between resilience and other variables. The result showed that sampled farmers used both positive and negative coping strategies. Due to the existence of PSNP, farmers in Dodota have absorptive resilience. PSNP provides various services to farmers however; the survey result revealed that the growth component of productive safety net is not successfully implemented. Five variables showed significance relationship with resilience. To some extent, PSNP has built adaptive resilience in those farmers who had credit access, used improved varieties of seeds, enrolled in informal safety nets and possess a land more than two hectares of land. It can be recommended that creative livelihood programs and business linkages should be designed and included in PSNP to achieve resilience. Policymakers and development practitioners must involve in the measurement of resilience in order to synchronize the newly approved social protection policy and help PSNP program become harmonized and impact households more effectively.

Key words: productive safety net program, absorptive resilience, adaptive resilience, coping strategies
Chapter One: Introduction

1.1 Background of the Study

In recent years, social protection has emerged as a new focus in the efforts to reduce poverty around the world. Access to adequate social protection is recognized by international labor standards as well as the United Nations as a basic right for all. Evidence shows that social protection is very important for low and middle-income country governments, not just only for alleviating poverty but also for promoting inclusive growth (Nicholas & Rachel, 2014).

Social protection constitutes policies and programs that are designed to protect people against risk and vulnerabilities. In the face of shocks, such as natural disasters, rising food and fuel prices, loss of employment, and many other problems, social protection plays an important role in limiting the need for negative coping strategies (IEG, 2011).

Adesina (2007:1) as cited in the African Union Social Policy Framework, 2008, defines social protection policy as:

“...the collective public efforts aimed at affecting and protecting the social well-being of the people within a given territory. Beyond immediate protection from social destitution, social policy might cover education and health care provision, habitat, food security, sanitation, guarantee some measure of labor market protection, and so on”.

"...the collective public efforts aimed at affecting and protecting the social well-being of the people within a given territory. Beyond immediate protection from social destitution, social policy might cover education and health care provision, habitat, food security, sanitation, guarantee some measure of labor market protection, and so on”.
The role of social protection in preventing people entering into poverty, and in reducing the duration of poverty is well known. It is argued that protecting households against shocks through social protection not only decreases poverty temporarily but also enables growth by allowing poor households to create and protect their assets, and allocate resources to risky but highly rewarding production activities (Robert et al. 2003).

In an effort to change the living conditions of the rural poor, the Ethiopian government has also undertaken a number of economic and social reform programs. In fact, the Ethiopian national social protection policy was ratified in March 2012. This policy defines social protection as being a set of “formal and informal interventions that aim to reduce social and economic risks, vulnerabilities and deprivations for all people and facilitates equitable growth” (MoLSA, 2012). The definition stems from the African Union Social Policy Framework which emphasizes the need for development, building human capital, breaking of the intergenerational poverty cycle and reduction of inequalities.

The scope of the national social protection policy program covers social insurance programs mainly pension, provision of social services, nutrition, support to the elderly, support to the vulnerable children, and many others targeted to the poor and vulnerable groups of the Ethiopian society (MoLSA, 2012).

Productive Safety Net Program (PSNP) is part of the national social protection policy. PSNP is explained in the policy as one of the food security programs designed to protect food
insecure households through transfer of cash and food items during times of shocks such as drought and other natural hazards (MoLSA, 2012).

In the past, emergency appeals for humanitarian support had been launched every year since the famine of 1984. At times of food shortages, the Ethiopian government used to call for help and notify the emergency food needs of the country to the international donors. The donors include CIDA, WB, USAID, WFP, and the government of Ireland. The number of people who were food insecure and desperately needed safety net response reached its peak in 2002-2003 when thirteen million Ethiopians were affected by drought. (Julie et al. 2011).

Reconsidering such crises led to a shift in the design of PSNP by the Ethiopian government and the international community, based on the realization that rather than repeated humanitarian responses at times of acute need, a more appropriate response would be one designed to address vulnerability by implementing social protection programmes, in coordination with a range of other developmental initiatives. The consequence was a radical change in programming; which is attempting to develop resources to crises which are largely predictable, and interventions which, over time reduce vulnerability and the underlying causes of such crises (Nicholas & Rachel 2014).
Figure 1: Ethiopian population in need of food aid by year (1994-2004)

The incidence of 2003 was a turning point to the Ethiopian government as well as the international donors to look for a more productive approach of responding to chronic and seasonal hunger faced by vulnerable communities. As a result, a government led country wide program Productive Safety Net started in 2005 (Julie et al. 2011).

The main purpose PSNP is to help the most vulnerable groups in the society attain household resilience to shocks and stress due to famine, draught or other environmental hazards. It is a multimillion program both in its scope and in its partnership approach.
The program has the following objectives:

(i) Predictable provision of adequate food and cash payments to targeted beneficiary households, thus allowing effective consumption levels and avoiding asset depletion and;

(ii) Creation of productive and sustainable community assets that contribute to the rehabilitation of severely degraded areas and increase household productivity (Julie et al. 2011).

PSNP is a one of the social safety net programs. It aims in providing social protection to the poorest of the poor. The Ethiopian government has formulated a social protection policy that addresses how productive safety nets as well as other programs go hand in hand to help communities go out of the cycle of poverty (MoLSA, 2012).

The concept of resilience seems to focuses not only addressing the challenges faced by households but also link short term humanitarian efforts with longer term development activities. Building resilience means helping people, prevent, anticipate, prepare for, cope with, and recover from shocks and not only bounce back to where they were before the shocks occurred, but become even better-off (Klaus et al., 2013).
In order to attain resilience over time, it is expected that PSNP beneficiaries should gain three capacities that respond to different degrees of change or shocks. To define them, absorptive capacity covers the coping strategies of individuals, households or communities use to moderate efforts to shield the impacts of shocks on their livelihoods and basic needs. Adaptive capacity is ability to learn from experience and adjust responses to changing external conditions, yet continue operating. Transformative capacity is the capacity to create a fundamentally new system when ecological, economic or social structures make the existing system unsustainable (Berkes, Colding and Folke 2003, Walker et al. 2004).

In a food security context, PSNP builds the resilience of households to withstand shocks and stresses and keep a certain level of wellbeing. Resilience depends on available livelihood options and on how well households are able to handle risks. PSNP in its implementation has two components. The first one is provision of food or cash or both to selected households in return for five days public works per month. And secondly, provision of direct support to those who are not able to work such as the elderly and people with disabilities. Through these components, PSNP intends to help families resist shocks, become food self-sufficient and attain productive assets in the long term (Judit & Matt, 2011).

The paper tries to address the role of PSNP at micro (household) level. It assesses the performance of PSNP and its contribution to household resilience. The study focuses on one district namely Dodota of the Oromiya region where the program has been operating for the past decade.
1.2 Background of the Research Area

According to the district Finance and Economic Development report, Dodota district is one of the 24 districts in Arsi zone of Oromia region. It is situated in the eastern part of the country with a span of 125 kilometers away from the national capital, Addis Ababa. The town of the district, Dera is located 50 kilometers northeast of the zonal capital, Asela and 25 kilometers southwest of Adama. The district is bounded by Sire district in the west, Adama district in the south, Zuway Dugda and Bora districts in the east, Hetosa district in the north and Lode Hetosa district in north-west. Dodota has a total of 14 kebeles; 12 of them are rural and the remaining two are urban. The total land area of the district is 445.6 km2. The landscape of the district is dominated by plain Plato which ranges from 1550-2080 meters above sea level. Dodota is a lowland area. There are two types of rainy seasons in the district; the short and long rainy seasons. The short rainy season lasts for about a month and a half and the long rainy season last for about three months. The rainfall pattern is erratic in nature or unpredictable (Dodota District Finance and Economic Development Office Report, [DDFEDO], 2014).
According to the district report, the total population of the district is 78,434 out of which 53,846 peoples are residing in rural areas. This constitutes 27,378 male and 26,468 female residents. The total households in rural kebeles are 8,224 households; of which 7,042 of the households are male headed and the rest 1,242 households are female headed. The majorities of the people of the district belong to Oromo ethnic group. The average family size of the District is 5 per household (DDFEDO, 2014).

Agriculture is the major source of livelihood for the people of the area. Both crop production and livestock rearing are practiced in the district. However, the district has never been food self-sufficient for the past twenty years. Therefore, it is currently categorized as one of the food insecure districts in the country. The district has two banks; Commercial Bank of Ethiopia
and Oromiya International Bank including one formal microfinance institution namely Oromia Credit and Saving Share Company (DDFEDO, 2014).

1.3 Statement of the Problem

The current estimate of the Ethiopian population is 96.6 million and, 39% of this population is considered poor and approximately eight million households suffer from chronic food insecurity (The World Fact Book, 2014). This is due to a range of factors, including the lack of a stable asset base and poor resiliency to shocks, which consistently contribute to high levels of malnutrition, mortality and poverty. The majority of these households cultivate cereal crops on less than an acre of land, primarily for subsistence.

Devereux and Sabates (2004), pointed out that social protection is the set of all initiatives that provide: social assistance to extremely poor individuals and households; social services to groups who need special care and social insurance to protect people against the risks and consequences of livelihood.

When poor people face shocks, they suffer from the direct effect of poverty and hunger which makes 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. Families are also engaged in positive coping strategies such as focusing on other pursuits be it formal off-farm employment such as wage labor or informal employment such as weaving and brewing (Christopher, Thomas, & Patrick, 2001).
Several studies have been made and books are published on productive safety net programs. Assessments and impact evaluations have been made by different stakeholders working in the area. For instance, Judit and Matt, (2011), tried to emphasize the remarkable achievements of PSNP starting from the efficiency of community targeting systems. They have noted that the timely payments made sure that people are not forced to sell their productive assets. PSNP has helped in rehabilitating the environment in which these communities live through public work activities and much more.

Other study on impact evaluation of PSNP explains that households that received payments for five years experienced a larger improvement in food security, than households that received payments for only one year. This describes that the more beneficiaries receive PSNP services the better they become over the years (John et al., 2011). Another study done by (Sabates et al., 2013) also showed the reduction in food gap, improvement in roads and services as well as access to education in selected areas of Afar, Oromiya and Somali regions.

On the other hand, there is an international perception that social protection programs could be the cause for dependency. Beneficiaries may attempt to hide true information about their income and assets, so as to continue to appear eligible when in fact they might have sustained their own assets and a good harvest. Food aid may change the behavior of the recipients by making them less active on their own economic and social responsibilities (Little, 2008). All of these behavioral responses to the delivery of social transfers can result in programs failing to achieve their long-term objectives, and generating large-scale dependency rather than large-scale graduation.
PSNP has been implemented for the past ten years. Before this program was launched, a relief program that is targeted towards food insecure and vulnerable families has been functioning for the past thirty years. Several assessment and impact studies were made on productive safety net program; however, fewer studies have been made on the effect of PSNP on household resilience. Klaus et al., (2013) discussed the key strengths of PSNP in covering seven to nine million beneficiaries and its unique institutional coordination. They also appreciated the strong monitoring and evaluation and its capacity to improve itself through different feedback practices. However, authors questioned the resilience aspects of PSNP. “Are PSNP and HABP really graduating resilient clients out of chronic poverty?”

As resilience encompasses the relief as well as growth programs; the role of PSNP on families in achieving resilience has been given less focus. Therefore, the study is engaged in assessing the role of PSNP on household resilience particularly in the selected district of Oromiya region.

1.4 Objective of the Study

The general objective of the study is to assess the role of Productive Safety Net Program on household resilience. The paper tires to examine the contribution of the program towards addressing food insecurity and reducing vulnerability among beneficiary households. Under this general objective, the specific objectives are to:

- To assess the role of PSNP in helping families build resilience towards food insecurity
• To examine the experiences of PSNP eligible families in coping with food insecurity during times of stress

1.5 Research Questions

The research tries to answer the following questions.

• Does productive safety net program help eligible rural households to become resilient towards chronic food insecurity?

• Does productive safety net program help its beneficiaries develop positive coping mechanisms in dealing with food insecurity?

1.6 Hypotheses

The following hypotheses are developed based on the reviewed literatures:

• Productive safety net program helps eligible rural households to become resilient towards chronic food insecurity

• Productive safety net program helps rural households develop positive coping strategies in dealing with food insecurity

1.7 Significance of the Study
As has been said before, the Ethiopian economy heavily relies on agricultural economy that is totally dependent on seasonal rainfall. Due to this, large proportions of the population are vulnerable to droughts and environmental related shocks. Therefore, it is imperative to understand the scope and magnitude of food insecurity at least in the study area and how affected families and communities cope with such problems.

The study analyzed how productive safety net program helps families become resilient towards shocks. Poor and vulnerable populations need greater resilience, and in order to achieve it, these communities, the host government and other stakeholders need to work together. The result of the study benefits farmers, rural and agriculture development offices, MoLSA, and international stakeholders that are deeply engaged in saving the lives of rural communities; NGO’s who are practically involved in the implementation of the program along with the government.

The information that was produced through this study serves as a basic document for future reference and existing knowledge improvement. Extension agents, policy makers, and researchers concerned with food security and resilience can use the result of the study.

1.8 Scope of the Study

Even though the study questions are very vital and applicable to all areas in which productive safety net programs are implemented, the study is geographically limited to Dodota district of Oromiya region. Issues and topics related to PSNP are many; however, the study focuses on aspects of resilience to food insecurity at household level.
1.9 Limitations of the Study

The researcher has faced challenges in defining the term resilience. Many international organizations and researchers have a variety of definitions. There is no one set of universal and accepted definition and measurement criteria of resilience that is adopted by all stakeholders. This was one limitation that the researcher has faced. And hence, the researcher chose a resilience measure developed by (Klaus et al., 2013) and published in the 2013 Global Hunger Index Report.

1.10 Operational Definition of Terms

**Chronic food insecurity**: Households that are regularly unable to produce or purchase enough food to meet their food needs, even during times of normal rain, are considered to be chronically food insecure (Ministry of Agriculture, 2010).

**Food security**: All people at all times having both physical and economic access to sufficient food to meet their dietary needs for a productive and healthy life (Ministry of Agriculture, 2010).

**Safety nets**: Refer to noncontributory transfer programs targeted in some way to the poor or vulnerable (Grosh et al. 2008). Safety nets aim to increase households’ consumption either directly or through substitution effects of basic commodities and essential services.
1.11 Organization of the Paper

This thesis is organized into five chapters. Following the introduction in chapter one, relevant literatures are reviewed and presented in chapter two. Chapter three presents the research method, data sources and data types, and the analytical tools. Chapter details the results and discussion. Finally, chapter five presents conclusion, recommendations and social work implications of the study.

Chapter Two: Review of Literature

2.1 The History of Social Protection

Social protection emerged as a critical response to the safety nets discussion of the late 1980s and early 1990s. During these days, safety nets were very much a focus of the World Bank’s approach to fighting poverty. Safety nets were actually conceptualized as minimum social assistance in countries that are too poor and administratively weak to introduce comprehensive social welfare programs (Devereux and Sabates, 2004).
The following definition captures the original ‘safety net’ emphasis from which social protection evolved, but also the broader concern with risk management and with social justice:

“Social protection describes all public and private initiatives that provide income or consumption transfers to the poor, protect the vulnerable against livelihood risks, and enhance the social status and rights of the marginalized; with the overall objective of reducing the economic and social vulnerability of poor, vulnerable and marginalized groups” (Devereux and Sabates, 2004: 9).

Concern about the adverse impact of the structural adjustment programs on the social sector led, during the 1980s and 1990s, to the emergence of an international consensus to bring social development back as a front burner development issue. This consensus found recognition at a number of international forums, including the Copenhagen World Summit on Social Development, and was the motivation for the adoption of the International Development Goals, including the United Nations MDGs. The World Bank and International Monetary Fund similarly became a part of this process and even granted debt relief to heavily indebted poor countries (under the Heavily Indebted Poor Countries Initiative). However, they wanted to dedicate the debt relief gains to the social sector and reflected this requirement in their poverty reduction strategy papers which was the prerequisite for debt relief in 1990s (Julie & Sarah, 2011).

World Bank thinking dominated the design and implementation of social protection programs in middle and low income countries. This approach promoted a residual form of social
protection based on supporting those adversely affected by structural adjustment, and primarily concerned with provision of social safety nets, as a response to shocks (Rachel & Anna, 2009).

### 2.2 Social Safety Nets in Middle East and Africa

Historically, transitions and crises have often opened new space for SSN building. Around the world, 70 percent of SSN programs were introduced after a major transition; for example, independence after the collapse of the former Soviet Union; Nepal’s transition to democracy; decentralization in Indonesia; and political changes in Brazil and Portugal. More recently, the global financial crisis prompted dozens of countries to create new SSN programs, expand old ones, and improve overall administrative systems to enhance governance and make programs more efficient (IEG, 2011).

Researchers indicated that without a safety net, poor families who are unable to afford their basic needs are likely to lose hope of escaping poverty; malnourished children are likely to grow up as poor adults; and, as a consequence of crises, vulnerable families are likely to face difficult choices between immediate survival and avoiding irreversible damage to their future welfare (IEG, 2011).

Progress on some human development outcomes in the Middle East and North Africa is still disappointing, and alarmingly low among the poor, with potentially life-long irreversible impacts. Early childhood malnutrition is very high in the region’s low-income countries and in some middle-income ones. In the face of a major shock, Middle Eastern and North African
households rely on their own income, savings, and assets as well as on informal safety nets such as private support from family and neighbors because few have access to formal safety nets. According to Mena Development Report, as many as 15 percent of households in Iraq and Morocco reported suffering at least one major shock during the previous 12 months, but only about 1 percent of these shock-affected households reported receiving help from formal safety nets; that is, support from the government and nongovernmental organizations. In this context, poorer families, with their limited incomes, savings, and assets, are again at greater risk. In addition, weather related shocks have considerably increased vulnerability among rural agricultural households (Joana Silva, et. al, 2012).

In addition, targeting methods used by SSN programs in are mostly geographical. Different targeting methods are applicable in different contexts. Recent economic and social transitions in the Middle East and North Africa have refocused attention on the need for greater social inclusion, livelihood, and resilience. Although sustained growth in many of the region’s countries has pulled some people out of poverty and into the middle class, economic progress has yet to reach many families who face persistent poverty and the risk of destitution because of unemployment, disability, or illness. Moreover, many more are vulnerable to economic shocks, natural disasters, and political or other crises (Victoria, 2014).

A new world bank review of the use of safety nets in twenty two African countries shows that safety nets are critical instruments for reducing extreme poverty and increasing shared wealth. The review entitled “Reducing Safety Nets in Africa” notes that safety net programs in Africa are working to reduce poverty in a number of ways. Impact evaluations provide
evidence that safety nets help households meet basic consumption needs, protect assets such as livestock and invest in their children’s health and education. Safety nets have evolved differently across Africa but are now taking hold as core poverty reduction instruments (Victoria, 2014).

Africa has a momentum to sustainably reduce poverty levels as stated in the World Bank Report. The percentage of people who are in poverty reduced from 58% to 48% between the years 1995 to 2008. But still after such gains, African countries are still fragile because of vulnerabilities and risks associated with global economic changes, natural disasters and climatic changes (World Bank, 2014). Access to credit plays a big role in helping households during times of shocks. In giving examples of the effects of credit insurance programs, Goldstien and Udry (1999), mentioned that farmers in Southern Ghana were not able to switch from low return income maize production to a higher return in pineapple cultivation. By the time, only 170 of the studied 1070 farmers were able to switch to pine apple cultivation. When asked why? The answer was “I don’t have the money”.

2.3 Social protection in Ethiopia

There are different social protection programs to address the most vulnerable groups of people living both in urban and rural areas of Ethiopia. As most of the population is living in the rural, the livelihoods of the majority depend on farming as well as pastoralism. Many literatures state that poverty is widespread in both rural and urban; however, its magnitude is much greater in drought-prone rural areas than in urban areas. The major causes of food insecurity in Ethiopia
include land degradation, recurrent drought, and population pressure and subsistence agricultural practices characterized by low input and low output (Ministry of Agriculture, 2010).

The social protection policy of Ethiopia was developed by the Ministry of Labour and Social Affairs in March 26, 2012. It includes issues of pension, aging, support to vulnerable children, nutrition, etc., along with food security. The policy states that focus must be given to vulnerable groups of the society with the notion of including the disabled and the aged. It focuses on households and individuals who should receive social assistance in order to function properly, and achieve quality of living within the society (MoLSA, 2012).

Food Security is one component of Social Protection Policy. As explained in many literatures, food is a basic necessity for people to survive in this world; therefore food security is a very critical issue. The Ministry of Agriculture had formulated a Food Security Strategy issued in November 1996 that highlighted its plan to address causality and effect of food insecurity in Ethiopia.

2.4 Safety nets and Resilience

Klaus et al., (2013) defined resilience as:

“The ability of households, communities and nations to absorb and recover from shocks, whilst positively adapting and transforming their structures and means for living in the face of long-term stresses, change and uncertainty”.
Even though the measurement of resilience differs among humanitarian actors, the researcher selected the below approach which is taken from (Klaus et al., 2013). A rigorous assessment of the literature shows, however, that the number of these analyses is still low (Béné et al. 2012). Resilience can be boosted by strengthening three different types of capacities. These are: Absorptive capacity which is the ability of a system to prepare for, mitigate or prevent negative impacts, using predetermined coping responses in order to preserve and restore essential basic structures and functions. This includes coping mechanisms used during periods of shock. Examples of absorptive capacity include early harvest, taking children out of school, and delaying debt repayments (Klaus et al., 2013).

The second one is adaptive capacity; the ability of a system to adjust, modify or change its characteristics and to take advantage of opportunities, so that it can continue to function without major qualitative changes in function or structural identity. Examples of adaptive capacity include diversification of livelihoods, involvement of the private sector in delivering basic services, and introducing drought resistant seed (Klaus et al., 2013). Transformative capacity is the ability to create a fundamentally new system so that the shock will no longer have any impact. This can be necessary when ecological, economic or social structures make the existing system untenable. Examples of transformative capacity include the introduction of conflict resolution mechanisms, urban planning measures, and actions to stamp out corruption (Berkes, Colding, and Folke 2003).
According to this broader definition, resilience is the result of not just one, but all three capacities. Each capacity leads to a different outcome: (1) absorptive capacity leads to endurance (or continuity); (2) adaptive capacity leads to incremental adjustments or changes; and (3) transformative capacity leads to transformational, system-changing responses (Berkes, Colding, and Folke, 2003).

An obvious example would be safety-net programs, which meet the criteria for providing social protection, or “relief,” and contributing to development, or “longer-term resilience building.” Social protection typically takes the form of food, cash, or voucher transfers, but the development component is more varied. Transfers that are conditional often incorporate explicit development objectives, such as raising school attendance, expanding vocational training or adult schooling, increasing nutritional knowledge, and, quite commonly, building infrastructure through public works programs. A very relevant example is the Productive Safety Net Program in Ethiopia (Klaus et al., 2013).

2.5 Productive Safety Net Program

One of the social protection programs designed to protect the Ethiopian population is productive safety net program. PSNP started in 2005 by the Ethiopian government with the help of international donors as a new approach to responding food insecurity. It targets chronically food-insecure households in known famine-prone areas in rural Ethiopia. The program is led by the Ethiopian government but most of the budget comes from donors. The government’s expense is the cost of civil servants who are involved in the management of PSNP. When it
started, PSNP had 4.5 million beneficiaries in 2005. PSNP operates in Afar, Amhara, Dire Dawa, Harare, Oromiya, SNPP, Somali and Tigray Regions. (Julie et al. 2011).

2.5.1 Objectives of PSNP

As per PSNP program implementation manual, PSNP has the following general objective:

“To assure food consumption and prevent asset depletion for food insecure households in chronically food insecure districts, while simulating markets, improving access to services and natural resources and rehabilitating and enhancing the natural environment” (Ministry of Agriculture, 2010).

In fact in the new PSNP design which was finalized in November 2014 emphasizes that its goal for the next phase of PSNP is:

“Resilience to shocks and livelihoods enhanced and food security and nutrition improved for rural households vulnerable to food insecurity” (Ministry of Agriculture, 2014).

The PSNP, PIM further elaborates that the program focuses on chronically food insecure districts; and households. The program intends to insure that food insecure individuals or members of the households have enough to eat throughout the year. PSNP aims to prevent asset
depletion. It is known that families are forced to sell what they have to put food on the plate. The program insures that people will not be forced to lose their assets in order to provide food for their families. In its implementation, PSNP involves public works having a positive contribution towards rehabilitating the natural resources. Furthermore, PSNP contributes to the creation of an enabling environment for community development by increasing access to services, such as health, education, roads and market infrastructure. In general, PSNP provides safety net to food insecure families helping them be able to secure food and asset platform and improve their status over time. (Ministry of Agriculture, 2010).

2.5.2 Coverage of PSNP Program

According to PSNP, PIM, the productive safety net program is implemented in districts defined by the government as chronically food insecure. The eligibility of households to be part of PSNP is defined by the frequency in which they required food assistance for the past ten years preceding the design of PSNP. Households that are chronically food insecure are included for regular PSNP transfers. The researcher selected one PSNP districts namely Dodota which has been part of the program for the past ten years.

2.5.3 Principles of PSNP

According to (Ministry of Agriculture, 2010), the program has its own principles to help achieve its objectives. One of its principles is having a fair and transparent client selection. Beneficiaries are selected by the community and district food security workers. There is an
appeal system to address if there are any grievances in the selection process. Transfer of benefits to selected families is timely and predictable. The PIM states that if transfers are timely, beneficiaries surely know when they will be receiving their entitlements and what type of transfer they will receive.

PSNP clients receive their entitlements for the reason of being selected. But they are expected to engage in public work activities as long as they are able. The PIM mentions that the productive element comes from infrastructure and improved natural resources base created through PSNP public works. In addition, the program is a key element in development planning. It links its beneficiaries to other development programs to ultimately help them achieve resilience over food insecurity (Ministry of Agriculture, 2010).

One of the major outputs of PSNP as stated in the new phase four design is to have appropriate and timely transfers to targeted beneficiaries. It is concerned with ensuring that such transfers are done consistently so that the program goal of strengthened resilience to shocks and improved food security is achieved (Ministry of Agriculture, 2014).

PSNP’s coverage increases as there is a need to scale up assistance in the event of shocks. When possible, the first choice of assistance is cash as it has the power to stimulate local markets. Food transfers are provided in areas where markets are not available in nearby places or where market prices for food are very high. The program participates both men and women to help them benefit equally. It responds to women’s responsibility in both the productive and
reproductive work and focuses to improve the living conditions of female headed households (Ministry of Agriculture, 2010).

2.5.4 Targeting

PSNP targeting is done with high involvement on the part of the local community along with the Community Food Security Task Force (CFSTF). There are list of criteria’s to recommend households be included as beneficiaries and whether those households should contribute their labor through public works (Julie et al., 2011). Therefore, the program uses a combination of both kebele administrative bodies and community targeting approaches. As taken from PIM, screening of the households is based on the following:

“The households should be members of the community; chronically food insecure households who have faced continuous food shortages (3 months of food gap or more per year) in at least three years. Households who suddenly become food insecure as a result of a sever loss of assets (financial, livestock, means of production, assets), especially if linked to the onset of sever chronic illness such as AIDS and are therefore unable to meet their food needs even during periods of normal rain and, households without adequate family support and other means of social protection and support” (Ministry of Agriculture, 2010 p 22-23).

PSNP provides transfers to food-insecure households’ equivalent to 15 kilos of cereal per household member per month for six months a year. Households that are required to work for
this transfer must work for five days to receive the transfer for one person. Thus a household of four members can receive a transfer equivalent to 60 kilos of cereal but has to provide 20 days of labor to earn it. In USAID-supported PSNP districts, additional transfers of oil and pulses may also be provided, to ensure a more-balanced food basket (Judit and Matt, 2011).

2.5.5 Graduation

“Graduation” is referred in PIM as a movement of a household out of the beneficiary of PSNP. Over the years, it is expected that the food security status of the households will improve with the help of PSNP. A household is considered as a prospect graduate when it meets its food needs for all 12 months of the year and able to withstand modest shocks (Ministry of Agriculture, 2010).

The program assesses the situation of the households every year to determine whether they have reached the criteria for graduation. The assessment involves insuring if families have assets such as land holding, livestock holding, food stock, etc. These criteria’s are benchmarks that are used in all regions to decide graduation. Actually, they rely on assessment of a small number of proxy indicators, including livestock holdings, land holdings and education status to determine food security status. Graduation from the PSNP is expected to reduce overall client numbers over time. Households that are identified for graduation will remain in the PSNP for one additional year to promote stability in their livelihoods and the building of resilience (Ministry of Agriculture, 2010).

2.6 Conceptual Framework
2.6.1 The Concept of Resilience in PSNP

The word resilience comes from the Latin word resilire, meaning, “to rebound or recoil.” Its earliest usage was in mechanical and civil engineering during the 19th century. Around the same time, psychologists also began exploring the idea of resilience, developing scales of resilience that captured notions such as self-efficacy, attitudes toward change, realistic sense of control, patience, ability to engage the support of others, secure attachments, and optimism. Several authors have documented the evolution on resilience in development (Bene et al. 2012). All emphasize that resilience is an ability to respond to temporary shocks or more persistent adverse trends called stressors.

It is important to understand that resilience is a process rather than a static state. Building resilience of individuals, households, communities, or higher-level systems to deal with disturbance requires improving three distinct but interrelated capacities: absorptive, adaptive, and transformative, which are mutually reinforcing and exist at multiple levels. Bene, et al., (2012) explained that resilience is not just about to maintain or return to a previous state; it is about adopting and learning to live with changes and uncertainty. The absorptive capacity is explained as the ability to cope with and absorb the effects of shocks and stresses. A good example is when a household temporarily reduces its expenses following a drop in its income.

Adaptive capacity on the other hand is the ability of individuals to adjust and adapt to shocks and stresses, but keep the overall system functioning in the same way; for instance when a household decides to diversify its crops in order to respond to changing weather conditions. The third aspect of resilience is the transformational capacity of the household which is the ability to
change the system when it is no longer is viable. Households can change their lifestyle when conditions require to permanently adopt to new environment or changing environment. For example, droughts in the horn of Africa may push people to leave their pastoralist livelihood and become agriculturalists instead because the environment could not allow them to rebuild their herds. (Klaus et al. 2013).

Strengthening resilience requires a balance between stability and change. The lessor the intensity of an adverse event the more families are able to cope with it. When the shock or stressor exceeds this absorptive capacity, however, individuals and communities will then exercise their adaptive resilience. It involves making incremental changes or adjustments to keep functioning without falling (Bene, et al., 2012).
Examples include adopting new farming techniques, diversifying one’s livelihood, taking out loans, and connecting to new social networks. These adaptations can be individual or collective. But still, if these adjustments are not enough to cope with adverse events, then families need to transform their life (Klaus et al., 2013).

Instead of only providing the food and cash transfers as remedial actions, it is better to link short term shocks and long term stressors to give us a clearer view of why people drift into poverty. Understanding of existing potential self-help competencies and capacities is important.
It is those competencies and capacities that must be built up to increase individuals’, and households’, ability to absorb, to adapt, and to transform (Klaus et al., 2013).
Chapter Three: The Research Method

This chapter describes the overall methodology of the research. It explains about the research method, sampling techniques, instruments, methods of data collection and analysis.

3.1 The Research Method

The method used for this research is mixed method because the researcher believes that both qualitative and quantitative research methods help best understand the research problem. The concept of mixing different methods originated in 1959 when Campbell and Fisk used multi methods to study the validity of psychological traits. The researcher bases the inquiry on the assumption that collecting different types of data best provides an understanding of a research problem. The study begins with a survey in order to generalize results to a population and in a second phase focuses on qualitative, open-ended interviews to collect detailed views from participants (John, 2003).

Kothari in his book also argues that mixed methods can serve a larger, transformative purpose to advocate for marginalized groups, such as women, racial minorities, people with disabilities and those who are poor (Kothari, 2004). The researcher believes that it is more appropriate to use mixed methods as the study focuses on how poor families who are food insecure try to cope with stressors such as droughts and famine with the help of productive safety net program.
Mixed methods research begins with the assumption that investigators, gather evidence based on the nature of the question. Social inquiry is targeted toward various sources and many levels that influence a given problem; for example policies, organizations and families. Quantitative methods are ideal for measuring prevalence of known phenomena including inferences of causality. Qualitative methods allow for identification of previously unknown processes, explanations of why and how phenomena occur. Mixed methods research, then, is more than simply collecting qualitative data from interviews, or collecting multiple forms of qualitative evidence or multiple types of quantitative evidence. It involves the intentional collection of both quantitative and qualitative data and the combination of the strengths of each to answer research questions. This integration involves analyzing one dataset and then using the information to inform the subsequent data collection. In this way the integration occurs by connecting the analysis of results from the initial phase with the data collection from the second phase of research (Pasick et al., 2009).

First, the researcher gathered data from selected participants of Dodota district through quantitative approach and using structured survey questionnaire. Later on, the qualitative part; focus group discussion was held with eight selected households comprising of four men and four women of young and old age category. The participants were selected from the four kebeles. The final data collection, key informant interview with food security official and two development agents was held in the end.

Using mixed methods, quantitative data from households is generalized for the population and at the same time the views of the experiences of the households obtained from the
survey questionnaire and the focus group discussions; the views of the food security officers obtained through key informant interviews has helped gain a detailed view of what is going on in PSNP program. The main purpose of using quantitative research is to get demographic information, understand access and control of resources and holding of assets at household level, understand the sources of livelihood, and the coping strategies at times of crises. Structured questionnaires were be used to gather information on two hundred ninety households that were selected purposefully in the district. The purpose of qualitative data was used to understand the experiences, and the coping mechanisms of the households during times of drought; to obtain a detailed information on PSNP services, alternative livelihoods, and challenges related to achieving resilience.

3.2 Methods of Data Collection

The researcher has used both primary and secondary sources of data. Review of related literature was conducted on various PSNP studies, books and journals. As primary data source, the researcher used structured questionnaire developed in view of the basic questions under the study. Experts on the field were consulted for comments on the content, language and clarity of the questionnaires.

In addition, one focus group discussion was held with eight people comprising four men and four women of both young and old age categories. Finally, one key informant interview was performed with the district security officer and two development agents to better understand the implementation process and challenges of productive safety net program on the government side.
The food security officer at the district level is engaged with activities such as targeting, coordination with the regional ministries and catholic relief services on tasks related to PSNP. Information obtained from focus group discussion and key informant interview helped triangulate with the data collected from structured questionnaires.

3.3 Sampling Techniques

The study population refers to rural households residing in Dodota districts of Oromiya region who are beneficiaries of productive safety net program. Following Kothari, (2004), the size of sample should neither be excessively large, nor too small. It should be optimum. An optimum sample is one which fulfills the requirements of representativeness, and reliability. Initially, Dodota district was purposefully selected based on the years of participation in the productive safety net program. Secondly, Dodota district has twelve kebeles. The researcher selected four kebeles through a simple random sampling. Then, Kebele list or sampling frame was referred with the development agents in the four kebeles. Beneficiaries are listed based on the following characteristics.

1. Female headed households
2. Male headed households

The total population of the beneficiaries in the four kebeles was 1,178. The sample size was calculated based on single population proportion P whereby P is the proportion of the study population that is resilient to food insecurity which nationally is 50%. The researcher used a
level of significance of (a) 0.05 and a margin of error (E) of 5%. \( Z_{\alpha} \) is a value from the normal distribution related to and representing the confidence level (equal to 1.96 for 95% confidence). Using these inputs and the standard sample size calculation formula, the sample size calculated for this study is 290.

Representative samples were arranged from four kebeles based on proportionate stratified sampling. Since PSNP beneficiaries have already been divided into two characteristics in the government records, the researcher believed that proportionate stratified sampling was the appropriate technic to be used to obtain a representative sample of the population. In proportionate stratified sampling, the number of elements allocated to the various strata is proportional to the representation of the strata in the target population. That is, the size of the sample drawn from each stratum is proportional to the relative size of that stratum in the target population.

Finally, the targeted numbers 290, are selected randomly from each stratum through computer aided random number generator. To ensure representation of different household headship type and PSNP support, the proportionally allocated number of participant with size for the different groups is shown in table 1.

\[
\text{Minimum sample size} = \frac{\left(\frac{Z_{\alpha/2}}{E}\right)^2 PQ}{E^2}
\]

Where \( P = \text{proportion} = 0.5 \) \( \quad \) \( Q = 1 - P = 0.5 \)

\( E = \text{Margin of error} = \pm 0.05 \) \( \quad \) \( \text{with level of confidence is 95\%, } \alpha = 0.05, \alpha/2 = 1.96 \)
With this we come up with $= 385$ sample size.

But our population is finite $= 1178$ and we further have a formula

$$n = \frac{m}{1 + \frac{m-1}{N}}$$

where $m = 385$  $N = 1178$

$$n = \frac{385}{1 + \frac{1178+384}{1178}}$$

Then $n = 290$.

Table 1: Sample size of respondents

<table>
<thead>
<tr>
<th>Region</th>
<th>District</th>
<th>Kebele</th>
<th>Types of families</th>
<th>Frequency</th>
<th>Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oromiya</td>
<td>Dodota</td>
<td>Dodota Alem</td>
<td>Female headed households</td>
<td>80</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Male headed households</td>
<td>284</td>
<td>76</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Amingna Debasu</td>
<td>Female headed households</td>
<td>63</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Male headed households</td>
<td>148</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Awash Bishole</td>
<td>Female headed households</td>
<td>49</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Male headed households</td>
<td>160</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dire Kiltu</td>
<td>Female headed households</td>
<td>78</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Male headed households</td>
<td>316</td>
<td>76</td>
</tr>
</tbody>
</table>
3.4 Data Collection Instrument

The researcher understands that the construction of a research instrument or tool for data collection is the most important aspect of the research because findings or conclusions are based upon the type of information collected. The researcher has used a survey questionnaire with both closed ended and open ended questions. The majority of the questions began with a series of closed ended questions, with boxes to tick or scales to rank, and including few of open-ended questions for a more detailed response. This can be referred in Appendix I.

The survey questionnaire was developed with the intention to measure the resilience capacities of the households. As indicted in the conceptual framework, families need to have absorptive, adaptive and transformative capacities to endure and resist shocks that come in to their lives. The researcher has intended to measure these capacities to fulfill the objective of the research questions. In addition, list of questions were developed employed in focus group discussion with selected households. A key informant interview questions were also developed for discussion with two kebele DA’s and one food security official in Dodota district. This can be referred in Appendix II and III.
Table 2: Proposed metrics for measuring resilience to food insecurity

<table>
<thead>
<tr>
<th>Resilience Capacity</th>
<th>Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Absorptive capacities index</td>
<td>o Informal safety nets (edir, senbete, savings groups such as ekub, edir and local cooperatives)</td>
</tr>
<tr>
<td></td>
<td>o Land ownership</td>
</tr>
<tr>
<td></td>
<td>o Livestock ownership</td>
</tr>
<tr>
<td></td>
<td>o Households that have positive coping behaviors in times of shocks such as eating from reserves, timely borrowing, etc.)</td>
</tr>
<tr>
<td></td>
<td>o Proper targeting by PSNP</td>
</tr>
<tr>
<td></td>
<td>o Timely transfer of food and cash by PSNP</td>
</tr>
<tr>
<td>Adaptive capacities index</td>
<td>o Access to formal credit loans</td>
</tr>
<tr>
<td></td>
<td>o Education/ Skills trainings received from PSNP</td>
</tr>
<tr>
<td></td>
<td>o Livelihood diversification (such as non-farm work, businesses etc.)</td>
</tr>
<tr>
<td></td>
<td>o Use of improved technology in farm such as improved seeds, fertilizers</td>
</tr>
<tr>
<td></td>
<td>o Other assistance sources such as remittances</td>
</tr>
<tr>
<td></td>
<td>o Land and livestock ownership</td>
</tr>
<tr>
<td>Transformative capacities</td>
<td>o Households leaving residence for better and viable livelihoods</td>
</tr>
<tr>
<td>index</td>
<td>o Households totally changing their livelihood to off-farm activities.</td>
</tr>
</tbody>
</table>

Source: Partially adopted from Constas and Barrett (2013).

3.5 Procedures of Data Collection

The researcher contacted CRS staff for assistance in linking and introducing with the district food security staff and the kebele development agents. In the process of data collection, four development agents were hired to collect data from each of the household heads along with the researcher. This is done because the sample size is 290 households. All of the four development agents are university graduates and able to speak Oromo language. The researcher took a considerable time and briefed the survey questionnaire, ethical and confidential issues to
the development agents. One household was interviewed and the questionnaire was filled as a sample test together with the DA’s. This is done to assess how much time it will take to gather survey data from one household. Some of the respondents were able to speak in Amharic. The researcher spent one day in each of the four kebeles to collect data and supervise the quality of data collection. The research participants were told the purpose of the research, what was expected of the research including the amount of time likely to be required for participation. Participants were also informed that participation is voluntary and that one can withdraw at any time with no negative repercussions. Confidentiality issues have also been addressed by the data collection team (Michael Quinn, 2002). Key informant interviews were done with the DA’s and Dodota district food security expert after setting time for discussions. Data was also gathered through FGD from selected households after briefing them the purpose of the research. Discussions were noted in writing by the researcher.

3.6 Methods of Data Analysis

Data obtained from structured household survey was analyzed through statistical packages for social scientists (SPSS) version 20 software. SPSS is a package of programs for manipulating, analyzing, and presenting data; the package is widely used in the social and behavioral sciences. (Landau et al.; 2004:1). Based on the collected data, descriptive statistical values of variables has been tabulated and presented in figures; graphical presentations. In addition, inferential analysis such as $\chi^2$-tests and t-test were used to see the presence of statistically significant differences and the systematic association between variables. Similarly, qualitative data that was obtained through key informant interviews and focus group discussions was analyzed by describing and interpreting the situation deeply and contextually.
3.7 Ethical Consideration

“The primary mission of the social work profession is to enhance human well-being and help meet the basic human needs of all people, with particular attention to the needs and empowerment of people who are vulnerable, oppressed, and living in poverty” (NASW 2008). Ethical issues are crucial to social researchers who by the very nature of the research request individuals to share them their thoughts, attitudes and experiences. Sensitive information might be obtained that other non-research efforts might be interested to know. To begin with, participant’s consent were asked if they were willing to engage in the study process. As cited in Creswell 2008, not only the researcher tried to get consent but should inform the respondents that participation is voluntary. In addition, participants were notified of the confidentiality aspect in which information will be used for academic purposes.

Integrity and being objective are the ethical values stated in the code of ethics of the national association of social workers. Accordingly, reports were analyzed in a trust worthy manner. Furthermore, the researcher understands bias can be detrimental to a research process. And hence the researcher was careful to avoid personal feelings to guide the research questions (NASW, 1996).

3.8 Trustworthiness Criteria

Credibility (internal validity) deals with how well the research findings reflect the true reality of the study sample, or how well the researcher interprets the true meaning of the collected data (Kothari, 2004). The researcher used multiple data collection methods. Firstly, quantitative
data was gathered from 290 households using structured survey questionnaire. In addition to the survey questions, qualitative data was obtained through focus group discussions and key informant interview. Such data sources were used to triangulate, or cross check, the interpretation of the data.

Further, the researcher tied to look at the content of the survey questionnaire, by asking experts in the area. The clarity, meaning, relevant questions etc. was seen to assure content validity.
Chapter Four: Results and Discussion

The major purpose of the study is to assess the role of productive safety net program on household resilience and examine the experiences of productive safety net clients in coping with chronic food insecurity. To this end, four kebeles were selected in Dodota district of Oromiya region. Data was gathered from 290 household respondents using closed ended and open ended survey questionnaire. In addition, focus group discussion was held with selected households and a key informant interview was conducted with Dodota district food security official and two development agents in the area.

Thus data gathered from respondents is presented using descriptive statistic with tables, graphs and pictorial presentations. Results are further elaborated and explained. Data gathered from survey questionnaire was analyzed through using statistical packages for social science (SPSS) version 20 software. In addition, inferential statistics chi-square and t-tests were used to see the significance of relationships among variables. Data gathered through open ended questions were organized and analyzed thematically to supplement information gained from the questionnaire.
4.1  Descriptive and inferential analysis of household characteristics

4.1.1 Respondents categorized by sex

Table 3: Profiles of respondents categorized by sex

<table>
<thead>
<tr>
<th>Variable</th>
<th>Kebeles</th>
<th>Amigna Dabaso</th>
<th>Awash Bishole</th>
<th>Dire Kiltu</th>
<th>Dodota A</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td>Male</td>
<td>37</td>
<td>35</td>
<td>76</td>
<td>76</td>
<td>224</td>
<td>77%</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>15</td>
<td>12</td>
<td>19</td>
<td>20</td>
<td>66</td>
<td>23%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>52</td>
<td>47</td>
<td>95</td>
<td>96</td>
<td>290</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: Own survey data 2015

Table three presents the number of samples surveyed in Dodota district of Oromiya region categorized by sex. The names of randomly selected kebeles are Amigna Debaso, Awash Bushole, Dire Kiltu and Dodota Alem. The majority of the households, 77% are male headed and the remaining 23% are female headed households. Based on proportionate stratified sampling, 66% of PSNP sampled clients come from Dire Kiltu and Dodota Alem showing the existence of high number of beneficiaries in the two kebeles.

4.1.2 Respondents categorized by marital status, family size and age

The respondents were asked to inform their back ground information for the study. The detail is shown in table 4. It is not surprising to find that most of the respondents are either married or have been married before. As shown in the table, 71% of the respondents are married. This is followed by widowed families that constitute about 17% of the total. Divorced families took 8% of the total respondents and only 4% lead a single life.
The survey result showed that nearly 65% of the respondents were students at one point in time but did not continue and reach high school. However, they are able to read and write. Few respondents, 2.4%, have been learning Bible or Kuran related religious teachings. The remaining 33% are illiterate.
The age category in table 4 also shows that the farmers of Dodota district start to participate in economic activities at a relatively young age. It is noticeable that there are considerable young couples between 20-30 years of age as well as between 30-40 years of age. These age categories constitute 54% of the sampled respondents together. Further, 25% of those sampled are between 40-50 age categories. The number of respondents who are economically active decreases to 17% in the age group between 51-60 and; it goes down to 4% in age group above 60.

4.1.3 Number of children in the household

Figure 4: Number of children in the family from surveyed households

Source: Own survey data 2015
Figure 4 shows the number of children living in a household. Unlike the thoughts of the researcher, the result indicates that most families have one to three children. Dire and Dodota Alem kebles have 29% in each with numbers of children between one to three. Adding all the percentages of this category together, it can be said that 81% of the respondents in all kebeles have one to three children in their family. This is followed by families having four to six children. Again, adding all the percentages together in this category, it can be said that 18% of the respondent households have four to six children. The families of Dodota district do not seem to have many dependent children. As shown in figure 4, seven to eight children in a family is insignificant. This category constitutes only 1%. It is the primary responsibility of a family to provide resources and satisfy at least the basic needs of the children. As the number of children in a family increases, it is evident that this will bring a challenge to families living in an area which has been consistently affected by different stressors over the years. The other important aspect related to children is learning. The researcher is informed that 97% of the children in the surveyed households go to school. Literatures in the area of food security also indicate that social protection programs play an important role in mitigating families take negative coping strategies such as removing children out of school when they face challenges (Christopher B., Thomas R., & Patrick W. 2001).

4.2 The Role of PSNP in achieving Resilience

In 2005, the Productive Safety Net Program set out to achieve multiple objectives. It has aimed to improve the targeting and benefits of the most vulnerable groups of the society and provide predictable food and cash transfers. On development side it focused on building
community assets through a public works program and through other growth focused programs for all but the most labor-constrained households. PSNP is linked to Household Asset Building Program.

As described in the literature review, PSNP starts with proper targeting of beneficiaries. In order to help people build up their livelihoods, and escape poverty, it is important to insure that only the poorest households are being selected. Survey responses show that 93% of the respondents agree that PSNP targeting is fair. On the other hand 7% of the respondents believe that there are problems in targeting of beneficiaries. In discussion with FGD participants the researcher is informed that there is a Kebele task force committee chaired by the Kebele chair person. The committee is comprised of 2 women, 2 youth, 2 influential people in the Kebele, 2 elders and 2 kebele development workers. There are criteria developed for selecting households to become PSNP clients. One criterion is ownership of assets and the other is the condition of family members such as the elderly, and disabled members of the community. FGD participants also agree that targeting is transparent. In clarifying the 7% of the respondents who are not content with the selection criteria the District Food Security Official and the DA’s discussed that targeting is based on quotas that come from the region. The Kebele task force committee selects beneficiaries until the quota is filled. Then after, the committee cannot add more clients to the program.

Families have been part of PSNP for many years. Survey results show that the majority of families have been PSNP clients for 10 years. PSNP provides 15 kilograms of wheat per family member, 1.5 kgs of soy beans per family member and 0.45 liters of oil per family member
for three months (MoA, 2010). It also provides cash transfers for three months. Through these transfers, it fills the food need gap of six months. When asked if this is enough or not FGD participants mentioned that it is not. But it supplements them.

In addition PSNP clients are linked to HABP that provides trainings and credit loans. According to the discussion in key informant interviews, trainings are done on nutrition, irrigation, soil conservation, HIV/AIDS awareness, and business planning. FGD discussion further clarified that technical trainings are given on bee hiving, use of improved seeds, sowing, producing vegetables for sale and livestock fattening. Separate training days are announced and beneficiaries allocate their time for such trainings.

Table 5: PSNP beneficiaries with access to credit loans

<table>
<thead>
<tr>
<th>Microfinance services</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>154</td>
<td>53.1</td>
<td>53.1</td>
</tr>
<tr>
<td>No</td>
<td>136</td>
<td>46.9</td>
<td>46.9</td>
</tr>
<tr>
<td>Total</td>
<td>290</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Own survey data, 2015

Resilience comes through taking available opportunities. Survey results show that 53.1% of the respondents were given credit facilities to pursue with business or buy farm inputs. The other discouraging aspect of credit is that it is not given to all PSNP households who needed the money. Table 5 shows that nearly 47% of the respondents were not able to get access to credit and mainly because they were not selected for it. Most of the households who do not have
access to credit are very much discouraged and responded that compared to last year they feel they are worse.

As can be seen from figure 5, credit loans are used for different purposes. After taking loans, sixty six clients were engaged in sheep and goat fattening. They will be given trainings and advice to achieve success in their business. The business culture is buying small goats and sheep and fattens them. After few months they will be sold in the market. This is followed by fifty households who took the money to buy fertilizers and improved seeds. They have a vision to increase their household income. Access to credit and encouraging risk taking behaviors is an indicator of resiliency.
Seventeen households bought oxen to use for farming. This happens when families do not own productive capitals or lose them due to drought. With the help of the credit loans they are able to buy such assets. Eight clients were engaged in renting in a land to get more access to land for farming and six clients used the money to do petty trade. These opportunities give farmers to increase their farm production and also earn non-farm income. Such services happen because of PSNP.

Other reason given for not getting credit loans is that some farmers are afraid of paying back the loan. The loan is too much for them. And others, they are not interested. In the FGD discussion, the researcher learned that many young and economically active clients are desperate to get access to credit loans. However, credit is given to a group of ten people who would sign as a guarantor for one another. This bureaucracy has limited clients from getting access to credit.

4.3 Social Participation (Informal safety nets)

Social participation is seen in dodoa district residents. Adger (2003) discussed that even people who are, by definition, poor have certain resources and capacities they can bring to bear to improve their own well-being. The role of social networks can be seen in the form of local-level organizations, in helping people build up and maintain their own resilience.
Table 6: Social Participation of the respondents

<table>
<thead>
<tr>
<th>Social Participation</th>
<th>Jigi</th>
<th>Edir</th>
<th>Ekub</th>
<th>Local Cooperatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>211</td>
<td>253</td>
<td>52</td>
<td>165</td>
</tr>
<tr>
<td>%</td>
<td>73%</td>
<td>87%</td>
<td>18%</td>
<td>57%</td>
</tr>
</tbody>
</table>

Source: Own survey 2015

According to the survey report, 73% of the respondents involve in jigi or debo. This is a culture of helping one another during times of weeding and harvest. The neighbors know one another closely. Public works are also done in a team. Further, 87% are part of edir. Ethiopian edirs are one example of local organizations that can help to build resilience at the individual and community levels. Edirs are burial societies or funeral organizations in which members meet monthly and contribute a small payment. They are formally organized, with written records of contributions and payments. Upon death of a member, they make a payment to surviving family members which are an informal association of friends, neighbors and families with the intention of helping one another in times of sorrow. In addition, 18% of the respondents are part of ekub and save their money informally.

The other most important informal networks are local cooperatives. There are three savings cooperatives in the district. These are Kenenisa, Walko, and Silki informal saving cooperatives. Savings build assets and instill financial discipline. Table nine shows that 57% of the beneficiaries are part of these cooperatives. The people of Dodota are able to buy their needs from their savings. Particularly the women are the one’s engaged in such savings. FGD participants discussed that twenty women gather together and start the saving. When money is needed they can take a loan and then pay it later on. In the discussion with the DA’s and food
security officials, the researcher has learned that the regional MoLSA is involved in maintaining the rights of women during public works. If pregnant women are not forced to work and in addition, after birth, they will receive their maternity leave rights and will not work for three months.

4.4 Trainings provided by PSNP

One role of PSNP is providing trainings to PSNP beneficiaries. Development agents have the responsibility to transfer knowledge on appropriate farm technologies, and farming technics. They should also show the success of model farmers as an example to other beneficiaries. The survey respondents have been asked if they had been given skills training and education by the government. Out of the total, 95% confirmed that they did get training and assistance at some point in time. The remaining 5% responded that they did not get any assistance and training. In a key informant interview with the DA’s, the researcher learned that there are skills trainings and educational programs. For those farmers who have taken credit, specialized trainings will be given on fattening livestock, bee hive distribution and management. There are also other trainings such as how to use irrigation, community conversations on gender equity, managing human waste, and savings. As obtained from the key informant interview, some farmers did not use adequate quantities of fertilizers. This will have little impact on production. After a variety of trainings, only 48% were able to use improved seed varieties to improve their production. When asked why, many farmers say that improved varieties of seeds are very expensive.
4.5 Land and Livestock Holdings

Ownership of resources such as land and livestock are very important indicators of resilience. The role of PSNP is helping families maintain their productive assets over time. Farmers’ main assets are land and livestock. Livestock assets include cattle, sheep, goats and poultry. According to the survey result, 97% of the farmers have access to land. The remaining 3% do not have land; therefore they are forced to work as daily laborers or rent land from others to do farming.

Figure 6 shows ownership of land by hectares. It displays that 30% of the survey respondents own between 2-3 hectares of land. This is followed by 20% of the respondents who own 0.5-0.75 hectares of land. We have 19% of those farmers who own 1 hectare of land. But there are few farmers who own more than 3 hectares of land.

Figure 6: Respondents ownership of land by hectares

Source: Own survey, 2015.
As taken from the survey, production varies from one family to another. Those farmers who took the advice of the development agents and diversified their crops and use improved seeds have gotten a better production. But those farmers who didn’t use any of these have impacted their production negatively.

Table 7: Livestock ownership of survey participants

<table>
<thead>
<tr>
<th>Livestock</th>
<th>Quantity</th>
<th>No. of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cow</td>
<td>1</td>
<td>105</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Oxen</td>
<td>1</td>
<td>103</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>83</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Heifers</td>
<td>1</td>
<td>32</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Calves</td>
<td>1</td>
<td>41</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Sheep</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>98</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>63</td>
</tr>
<tr>
<td></td>
<td>Above 4</td>
<td>61</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Livestock</th>
<th>Quantity</th>
<th>No. of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goats</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>36</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Above 4</td>
<td>26</td>
</tr>
<tr>
<td>Mules</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Horses</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>Donkey</td>
<td>1</td>
<td>119</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>36</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Chicken</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>120</td>
</tr>
</tbody>
</table>

Source: Own survey 2015

Based on the survey result, table 7 is prepared to show the number of farmers who own cattle. Table 7 shows that productive assets such as cows and oxen are owned by households. For example, 105 families own one cow and 20 families own 2 cows and only one family owns 1 cow. Obviously oxen are used for farming. Only 103 families out of 290 are able to secure one
oxen. And, 83 families have 2 oxen in their home. Sheep and goats are mostly owned for fattening; 98 households own 2 sheep, and 61 households own above four sheep. In addition, the above table shows the scarcity of oxen. Farmers who do not have oxen are forced to rent oxen for money or in exchange with their labor. In fact, from those households who took credit loans, 11% have invested their money in buying oxen. No one from the respondents own more than three cows and oxen. The result also shows that 119 households own 1 donkey. In the FGD discussion, the researcher learned that donkeys are useful for transporting items to the market, and water for cultivation of onions.

### 4.6 Respondents receiving assistance outside of household

Apart from household earnings, getting resource from other sources is essential for household resilience. With an increased resource, households are better able to cope with stressors. Survey respondents have been asked if they have received assistance from a friend or a relative living outside of the household. From the total surveyed, 26% of the respondents got assistance outside the household. The remaining 74% didn’t. The respondents who got some form of assistance or the 26% stated that they were able to get help of different kinds listed in table 8 below.
Table 8: Respondents receiving assistance outside of household

<table>
<thead>
<tr>
<th>Assistance Sources</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remittance</td>
<td>8%</td>
</tr>
<tr>
<td>Cash Loan</td>
<td>3%</td>
</tr>
<tr>
<td>Food gift</td>
<td>7%</td>
</tr>
<tr>
<td>Cash gift</td>
<td>4%</td>
</tr>
<tr>
<td>Grain loan</td>
<td>1%</td>
</tr>
<tr>
<td>Seed loan</td>
<td>1%</td>
</tr>
<tr>
<td>Seed gift</td>
<td>3%</td>
</tr>
<tr>
<td>Free labor</td>
<td>10%</td>
</tr>
<tr>
<td>Free use oxen</td>
<td>9%</td>
</tr>
<tr>
<td>Free use of animals for transport</td>
<td>5%</td>
</tr>
</tbody>
</table>

Source: Own survey 2015.

From the 26% who responded that they get resources from outside of the household, 8% of them get remittances. Remittances are low in Dodota. As we continue only 7% are able to get food gift and 4% received cash gift. In addition, 10% of them got free labor and 9% got free oxens to use for farming. In general the report shows that getting outside sources is minimal.

### 4.7 Stressors and shocks happening in surveyed areas

As discussed in previous literatures, shocks are negative happenings or adverse events that affect families once in life time. But such happenings will be named stressors when they consistently happen over a period of time. Stressors affect families deeply if they are not mitigated or coped with wisely. The major activity in the Dodota district is crop production. Hence, any factor that disrupts the production of sufficient grains that is required by the households is a stressor that results in households’ food insecurity. The sample respondents have been asked to rate and prioritize the major shocks and stressors happening in their area. Their response is shown in the graph below.
Figure 7: Stressors and Shocks of Dodota district

Source: Own survey data 2015

The graph shows that drought is the number one stressor in Dodota. It is rated by 280 respondents. The second major stressor is livestock disease. It is rated by 168 respondents and thirdly lack of oxen rated by 118 respondents. In addition, lack of sufficient land holdings is considered as a problem in the area pointed out by 85 respondents. Lastly, weed is considered as the fifth problem in the area. The focus group discussions with selected households also confirmed that drought, and livestock diseases are the major constraints in Dodota. During the FGD, the researcher learned that there is lack of rain. The rain should start from early May and last through August. All households will start sowing maize in May. As it continues to rain, teff, barley, wheat, beans and others are sown to get the harvest in October. One lady in the discussion said “everything is about water” emphasizing its importance for any living. But the reality is different. This year, the rain started in May 28, while the researcher was in the area for data collection. It was late. The respondents mentioned that it was not raining for whole nine months since last October. This added a constraint in maize production.
A key informant interview with the Food Security Official and DAs also showed that drought comes due to shortage of rain. The associated problems mentioned were deforestation and low productivity. Some households use woods as a source of income even though it is prohibited. This shows there is a negative coping mechanism employed by the households. Over the past few years the population of cattle has decreased due to lack of grazing land which is again related to lack of rain. Dodota is characterized by erratic rain falls. In general, there is shortage of rain or water.

Apart from the survey questions, FGD revealed that there is shortage of grazing land. In earlier years there used to be a public grazing land but it is currently a segregated area and publicly known as Awash Park. Respondents are complaining that taking such grazing land has highly affected their livelihood. Their cattle do not have place to graze their food. If their cattle is seen the park they will be fined.

The other stressor raised by members of the FGD was lack of sufficient lands. This was the fourth major problem selected by the survey respondents. The young generations do not have enough land. In the open ended questions, some farmers responded that they are not using diversification because their land is so small and can’t enable them to produce diversified crops. Table 9 shows ownership of land by age group.
Table 9: Respondents ownership of land by age group

<table>
<thead>
<tr>
<th>Age Range</th>
<th>Families with no land</th>
<th>0.25 to 0.4 Hectare</th>
<th>0.5 to 0.75 Hectare</th>
<th>1 Hectare</th>
<th>1.25 to 1.75 Hectare</th>
<th>2 to 3 Hectare</th>
<th>3 - 4 Hectare</th>
<th>Above 4 Hectare</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 - 30</td>
<td>2</td>
<td>2</td>
<td>19</td>
<td>12</td>
<td>4</td>
<td>6</td>
<td>1</td>
<td>1</td>
<td>47</td>
</tr>
<tr>
<td>31 - 40</td>
<td>3</td>
<td>3</td>
<td>25</td>
<td>27</td>
<td>30</td>
<td>19</td>
<td>3</td>
<td>0</td>
<td>110</td>
</tr>
<tr>
<td>41 - 50</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>12</td>
<td>11</td>
<td>35</td>
<td>3</td>
<td>1</td>
<td>71</td>
</tr>
<tr>
<td>51 - 78</td>
<td>2</td>
<td>0</td>
<td>9</td>
<td>3</td>
<td>7</td>
<td>26</td>
<td>9</td>
<td>6</td>
<td>62</td>
</tr>
<tr>
<td>Total</td>
<td>10</td>
<td>8</td>
<td>56</td>
<td>54</td>
<td>52</td>
<td>86</td>
<td>16</td>
<td>8</td>
<td>290</td>
</tr>
</tbody>
</table>

Source: Own survey data 2015

The table begins with numbers of respondents who have no land by age group. As shown in table 9, a total of ten respondents out of the 290 have no land. The table also shows respondents who own a land that is between 0.5 (half hectare) to 0.75 are within age group 20-30 and 31-40. One hectare to 1.75 hectare is mostly owned by age group between age group 31-40. A size of land between 2 – 3 hectares is mostly owed by age group 41-50 and also age group 51-78. This shows that the younger generation is only limited to 0.5 hectares of land.

The FGD discussion also confirmed that there are insufficient land holdings. There is no land given to the new generation. What young farmers have is what is given from their families. This has a constraint. Based on the above table, the chart is developed showing the ownership of land of respondents whose age is between 20-30.
The purpose of the figure eight is to show the ownership of land by number of respondents whose age group is between 20-30. The majority or nineteen farmers own half hectares and twelve of them have 1 hectare. Six respondents of the young age group own 2-3 hectare. Only one respondent own 3-4 hectares and another one above 4 hectares of land.

Survey respondents have also been asked about the likelihood of occurrence of such stressors. Out of 290 sampled, 186 of them responded that drought and its associated problems occur every year signifying that the problems they are facing are permanent stressors and not just one time shocks. The remaining research participants responded that stressors come twice in a year. This response is to mean that the raining seasons are two. But rainfall patterns are not as they should be.
4.8 Impact of stressors in surveyed areas

The open ended questionnaires reflect that after many years of erratic rains and frequently occurring droughts, Dodota has less vegetation cover. Families do not produce enough grains to adequately cover their needs. Due to low production, there is low forage to feed the livestock. Livestock are affected by diseases and their population over the years has decreased. In addition, households are not able to sell their products and get money for such expenses as to buy drugs and pay for children uniforms.

Because of the dry season and associated animal diseases, some households lose their oxen’s. Hence, they will be forced to borrow from microcredit institutions to buy an ox for farming and fill out for the lost ones. Even after borrowing, households are faced with limited income to pay back their loans. In getting responses from the respondents, the researcher learned that there are a considerable number of households that do not have oxen to farm their land. In fact, 22 respondents in the survey have borrowed from the local micro credit institutions to buy oxen for farming. Others rent oxen’s for cash or share with other households in return for their labor.

The survey response also showed that from the total 290 respondents, 46 of them or 16% have sharecropped their farm. These farmers share their land with other farmers because they don’t have the capacity to buy improved seeds and fertilizers. In the FGD, discussion participants also mentioned that families are forced to rent out land instead of farming themselves due to lack of money to buy farm inputs such as fertilizer and improved seeds. The harsh conditions have limited families to gain assets over the years and forced them to be dependent on PSNP. Some respondents have suffered illness and others have low morale.
In the interview with the development agents, the researcher was informed that the lack of resources also has an impact on growth of children due to limited and non-nutritious foods. In general, the habitants of Dodota have been adversely affected by drought, livestock diseases, and shortage of land for farming and lack of farm oxens. FGD participants complained that their cattle are dying due to diseases and their number has decreased. Their production is also based on the erratic rainfalls and the dry season is very long.

4.9 Coping Mechanisms of Dodota district residents

It has been mentioned in the literatures that resilience can be boosted having three capacities namely adaptive, absorptive and transformative. Often these capacities can be used at the same time. The variables or indicators attached to each of these capacities have been detailed in the methodology part of the thesis. A resilient farmer is the one who uses positive coping mechanisms and adaptive measures to deal with problems. In other words, a problem that occurs once can be shocking, but recurrent problem must be faced with different coping strategies. Resources such as productive assets, land, non-farm employment, entrepreneurship, use of improved varieties of seeds, access to credit, etc. are the coping mechanisms that help identify resilient farmers out of those surveyed.

Respondents were asked what they would do to overcome the drought and related problems that has affected their livelihoods. The participants of the survey were discontent of last year’s rain. Many were dissatisfied of their crop production. In the FGD, participants commented that if it had rained just a lit bit it they would have been able to get a good crop.
Figure 9: Respondents coping mechanisms

The above figure shows that families have different coping mechanisms at times of stress. The questions asked were if they stick to less preferred foods, borrow or buy on credit, eat immature or seed stocks, eat elsewhere when food is not available at home, limit portion and prioritize only for the children. The higher percentage is reflected on the first line above which shows that most families’ rated “never” for all of the questions. For instance, 99% of the respondents replied “never” for skipping meals for an entire day. This is followed by a rate of “hardly at all” for most of the questions. This is shown in the purple line. It reflects that most families do not suffer because of lack food at home. Because of safety net food and cash transfers, most families are food secure or food is available in their home for consumption. Still, 34% of families rated that they rely on less preferred food all the time, and 30% rated that they limit portion size once in a while. As a result, PSNP families are able to achieve absorptive capacity. This capacity is the initial stage where families start thinking about what they would
do when they face stressors and devise short term remedies. This is also confirmed by the number of feedings per day.

Households feeding situation is one mechanism of coping seasonal food shortage problems. In response to a related question, 29% of the households eat 2 meals per day. This shows that households limit their feeding in order to consume what they have for the entire year. 71% of the households say that they eat three meals per day. This shows that with the help of PSNP the food gaps have been filled and such families do not face the stress of food insecurity. Only 1% stated that they eat one meal per day.

Figure 10: Respondents eating habits in a day

![Number of meals per day](image)

Source: Own survey 2015

Different families react differently to stressors. Survey responses also show that from those families who work apart from farming, a considerable number of families sell natural
product or wood to earn additional income. This is a negative coping strategy as it leads to deforestation of the areas. But still, it gives them a daily income. The researcher also learned that some reduce meals in quality. Others rent out their land instead of farming because they will not have the money to buy fertilizer and seeds. It was surprising to see that there are farmers who do nothing. They will not engage in non-farm work because they say that there is no work in the area. It doesn’t seem practical for them to go out of their village to work. But in some seasons they get a job of weeding; and that is all.

Table 10 shows the number of families who are engaged in other livelihood activities apart from farming. Of those surveyed, 30% of families do other livelihood work other than farming but, the majority 70% practice only farming.

Table 10: Engagement of families in non-farm activities

<table>
<thead>
<tr>
<th>Kebele</th>
<th>Amigna D</th>
<th>Awash</th>
<th>Dire</th>
<th>Dodota A</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>10</td>
<td>25</td>
<td>35</td>
<td>17</td>
<td>87</td>
<td>30%</td>
</tr>
<tr>
<td>No</td>
<td>42</td>
<td>22</td>
<td>59</td>
<td>79</td>
<td>202</td>
<td>70%</td>
</tr>
<tr>
<td>Total</td>
<td>52</td>
<td>47</td>
<td>95</td>
<td>96</td>
<td>290</td>
<td></td>
</tr>
</tbody>
</table>

Source: Own survey 2015

As seen in the literature, families are able to absorb problems if they increase their means of income. Those farmers that live in Awash Bishola kebles are hired as daily laborers in Sugar
Cane Factory that is located nearby. This work is not seasonal and happens throughout the year. These families can earn a consistent income in the factory. One lady from the FGD who happens to live in Awash Bishola also confirmed to me that she does pottery and sell it at the market. In addition she also works as a daily laborer and get 26 birr per day. She would ask her friends to lend her when she is in short of money. Respondents in Aminga Kebele also engage in irrigation activities to produce vegetables for sale. The researcher was impressed with one farmer who farms in two hectares of land but tires his best get good crops. He has used improved varieties of seeds. He has two bee hives, and produces acacia, Luciana and other tree seeds. He sells it to the government. On the previous sale, he was able to earn 20,000 birr. In addition, he uses irrigation to produce vegetables for sale. The typical rural livelihood strategy combines crop and livestock agriculture, off-farm income-generating activities such as daily labor, petty trading, seasonal migration and also dependence on food aid which is mostly delivered with a work requirement. Most female respondents engage in working pottery, weaving, selling tela or traditional alcoholic drink, and petty trading.

The researcher noticed that few residents of Dodota Alem Kebele engage in doing cart using a horse. Since there are no means of transportation in the rural areas they provide transport services to the local people. Most responded that it is a very rewarding work especially during harvest time. These respondents get an annual income of 18,000 birr or above which greatly supplements their income. Some semi-skilled laborers were also part of the respondents. They go out of their village and do constructions work. Since they are semi-skilled they earn better income. Transformational resilience is not seen. The farmers want to continue to live in Dodota as farmers.
4.10 Resilient Farmers

Based on literature review, resiliency has three components; absorptive, adaptive and transformative capacities. Due to the existence of PSNP, surveyed households have absorptive resilience in that they have sustained the drought without falling down the drain. They have maintained their stability and have foods on their plates. However, when talking about adaptive resilience, these households are the ones who have access to such resources as enough land (two and more than two hectares), microcredit, and improved varieties of seeds, fertilizers, trainings and owned livestock. On top of these parameters, those households who felt that they did better than last year were also considered as resilient farmers. Having these criteria, five female farmers and thirty two male farmers or 12.7% of those surveyed have adaptive resilience. Figure 11, shows farmers who have adaptive resilience to food insecurity.

![Figure 11: Respondent s with adaptive capacity of resilience](chart.png)

Source: Own Survey data, 2015
Figure 11 reflects that the majority of male farmers with adaptive capacity of resilience come from Dodota Kebele followed by Dire and Amingna kebeles. In the FGD, the researcher learned that residents of Dodota are engaged in cultivating different vegetables and fruits for sale. They use their donkeys to transport water since there is no irrigation. They also buy carts for business. On the contrary, there are only one female and one male farmers in Awash Kebele with adaptive capacity of resilience. As taken form the FGD, the scarcity of land have been the main issue Awash Kebele. There are no female households seen in Dire with adaptive capacity of resilience.

4.11 Working Hypothesis, Definitions of Variables and Results

4.11.1 Dependent variable

The dependent variable of this study is household resilience to food insecurity. The sample respondents are the two groups; those who have absorptive capacity of resilience and those who have adaptive capacity of resilience to food insecurity. From the respondents, no farmers were found having transformative capacity of resilience.

4.11.2 Explanatory variables

The explanatory variables in this study are those variables which are thought to have influence on household resilience in the study area.

Age of Farmers – It is a continuous variable and measured in years. Aged households are expected to be non-resilient as they are believed be conservative and unwilling to use improved technologies. It is hypothesized that resilience is affected negatively with the increase in age of farmers.
Land size: - This refers to the area of land that the farm household owned and measured in hectare. It is substantial economic resource. Land is one of the important resources that enable farmers to produce more and become more resilient towards food insecurity. It is hypothesized that the more land size the higher the resilience of farmers.

Education level: - It is often assumed that educated farmers are better able to devise ways of getting better farm production. It is expected that such households are more innovative and are therefore more likely to adopt farming technologies to get higher farm production and income. Education is hypothesized to have positive relation with achieving resilience.

Family size: This refers to the total number of members of family in a household. It is expected that as the number of family size increases, the challenge of families to fulfill the food needs of its members increases. It is hypothesized that the higher the family size, the lessor the achievement of resilience in a household.

Oxen: This is an important source of livelihood. Farmers are expected to use their productive asset, oxen to farm their land and get good production. It is hypothesized that families with oxen are likely to achieve resilience.

Training: - Training is one of the means by which farmers acquire new knowledge and skills that will help them achieve better production. It is hypothesized that training will affect positively with achievement of household resilience.

Economically Active Household: This refers to the head of the household who is actively working and contributing income for the family. It is hypothesized that the more the household is active the higher it is to be resilient towards food insecurity.

Sex of a household: Due to many socio-cultural values and norms, males have freedom of mobility and participation in different extension programs and consequently have greater access to information. Therefore, it is hypothesized that male farmers are more likely to adapt improved technologies to get higher production and resilience.
**Diversification:** It is expected that as farmers diversify their lands, they are better able to keep the fertility of the soil for many years and get better production (Klaus et al., 2013). Those farmers that diversify their crops are hypothesized to be resilient farmers.

**Fertilizer:** Fertilizer is considered as a very important farm input that impacts higher production (Klaus et al., 2013). It is hypothesized that farmers will achieve resilience through use of fertilizers.

**Improved Seeds:** It is hypothesized that using improved seeds will help get better farm production. A farmer who uses drought resistant seeds is better able to get higher yields and resilience to food insecurity.

### 4.11.2 Results of Inferential Statistics

Inferential statistics such as t-tests for continuous, and chi-square tests ($\chi^2$) for categorical explanatory variables were used to examine data for differences, associations and relationships to answer hypotheses. Table 11 was developed to have a t-test of the two groups’ namely adoptive and absorptive capacities of resilience.

<table>
<thead>
<tr>
<th>Independent Samples Test for Continuous Explanatory Variables</th>
<th>t-test for Equality of Means</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable</td>
<td>t</td>
</tr>
<tr>
<td>---------</td>
<td>----</td>
</tr>
<tr>
<td>Age</td>
<td>2.512</td>
</tr>
<tr>
<td>Family size</td>
<td>2.388</td>
</tr>
<tr>
<td>Economically active household</td>
<td>3.42</td>
</tr>
<tr>
<td>Land Size</td>
<td>4.027</td>
</tr>
<tr>
<td>Oxen</td>
<td>3.297</td>
</tr>
</tbody>
</table>

Source: Own survey, 2015
The t-test analysis result revealed that, age had no significant relationship with both absorptive and adaptive resilience with $t=0.013$; p-value$<0.05$ at 5% significance level. This implies that, the increase in age of sample respondents’ does not have any effect or influence with achieving household resilience in the study area. This is inconsistent with the hypothesized relationship. The t-test analysis result for family size also showed that family size has no significant relationship with adaptive and absorptive resilience with $t=0.018$; p-value$<0.05$ at 5% significance level implying the increase or decrease in family size does not have an effect in achieving resilience. This result also negates the hypotheses. The average family size of the respondents is five; secondary data also indicate the same number.

Being economically active is statistically significant and have positive relationship with achieving resilience with $t=0.001$; p-value$<0.05$ at 5% significance level. The result is consistent to the hypothesized relationship. The t-test analysis result for land size showed that land size had significant relationship with adaptive and absorptive resilience with $t=0.00$; p-value$<0.05$ at 5% significance level implying the larger the land size the more a household can achieve resilience. This is also similar to the hypothesized relationship.

The t-test analysis result for oxen showed that ownership of oxen had significant relationship with adaptive and absorptive resilience with $t=0.001$; p-value $<0.05$ at 5% significance level and consistent to the hypothesized relationship.
Table 12: Chi-Square tests on productivity of farmers

<table>
<thead>
<tr>
<th>Variable</th>
<th>$\chi^2$-value</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td>1.041</td>
<td>0.308</td>
</tr>
<tr>
<td>Diversification</td>
<td>1.469</td>
<td>0.225</td>
</tr>
<tr>
<td>Fertilizer</td>
<td>6.895</td>
<td>0.009</td>
</tr>
<tr>
<td>Improved seeds</td>
<td>16</td>
<td>0</td>
</tr>
<tr>
<td>Training</td>
<td>2.808</td>
<td>0.094</td>
</tr>
<tr>
<td>Education</td>
<td>2.356</td>
<td>0.308</td>
</tr>
</tbody>
</table>

Source: Own survey, 2015

Table 12 shows the results of chi-square tests for categorical variables. The chi-square table is included to see the presence of statistically significant differences and the systematic association between adoptive and absorptive capacities of resilience in terms of some hypothesized variables. The result of $\chi^2$ showed that sex of a household, has no significant relationship with household resilience with ($\chi^2=1.041$), P value=0.308 at 5% level of significance. Whether the household members are males or females doesn’t have a specific effect on achieving resilience. The result is contrary to the hypothesis.

Diversification, has no significant relationship with household resilience with ($\chi^2=1.469$), P value=0.225 at 5% level of significance. The result is contrary to the hypothesized relationship. The quantitative data from survey questionnaire showed that 62% of the respondents diversified their crops. However, the FGD showed that farmers whose land size is small find it difficult to do diversification. Fertilizer has significant relationship with household resilience with ($\chi^2=6.895$), P value=0.009 at 5% level of significance. This shows that the more households use fertilizers the more they can achieve resilience; and it is consistent to the
hypothesized relationship. From those surveyed, 47.9% use improved seeds. Improved seeds have significant relationship with household resilience with \( \chi^2=16.00 \), P value=0.000 at 5% level of significance and consistent with the hypotheses. Farmers are aware that improved seeds have an impact in their production. The result of \( \chi^2 \) showed that education, has no significant relationship with household resilience with \( \chi^2=2.356 \), P value=0.308 at 5% level of significance. This means that whether a farmer is illiterate or educated does not influence household resilience. The result is contrary to the hypothesized relationship with resilience. Lastly, trainings have no significant relationship with household resilience with \( \chi^2=2.808 \), P value=0.094 at 5% level of significance. The results are also contrary to the hypothesized relationship. Farmers are given different trainings; however there are other factors that are beyond their capacity that limit them to implement what they have learned. For instance, FGD confirmed that farmers lack money to buy improved seeds and do not own sufficient land size to perform diversification.

4.12 Discussion

The study assessed the role of productive safety net program on household resilience and the experiences of PSNP beneficiaries in coping with chronic food insecurity during times of stress using cross sectional data collected from Dodota district of Oromiya region. The primary data for this study was collected from 290 PSNP households using survey questionnaires comprising of close ended and open ended questions. Focus group discussion as well as key informant interview used to triangulate data obtained from structured surveys.
Literature explains that safety nets are critical instruments in reducing poverty and increasing prosperity over time (Victoria, 2014). With the help of safety nets, poor families are able to afford their basic necessities and avoid further damage in their household (IEG, 2011). PSNP being a social protection program, is engaged in addressing the food insecurity problems of the most vulnerable groups of the Ethiopian population. PSNP begins with targeting of beneficiaries. According to Survey responses, 93% of the respondents agreed that PSNP targeting is done fairly. Targeting confirms proper inclusion of those who need safety net services. This has also been one of the findings of Judit & Matt, (2011) who commented on the efficiency of PSNP in targeting its clients. The remaining 7% of the respondents did not think targeting was fair. The information from key informant interview showed that targeting is based on quota and districts have to select beneficiaries until the quota is filled. However, transparency in targeting has shown contentment of the majority of the rural households. This is one successful task for the program to begin with.

Survey responses showed that PSNP provides 15 kilograms of wheat, 1.5 kilograms of soy beans and 0.45 liters of oil per family member for three months. In addition, it provides cash transfers for another three months. This is one of the objectives of PSNP; filling the food gaps of its clients at times of food shortages. The major findings of the study indicate that 71% eat three meals and 29% eat two meals per day. This is a finding that confirms that beneficiaries are not suffering because of lack of food. Due to the existence of PSNP, surveyed households have absorptive capacity of resilience in that they have sustained the drought having food in their household for the twelve months of the year.
The major stressor in the area is recurrent drought or lack of rain. The respondents in Dodota district have faced many other problems other than lack of rain. For example, there are livestock diseases, and particularly there is lack of oxen. Findings show that only 103 families out of 290 were able to have one oxen, 83 families have two oxen and one family has three oxen. This means that even though 97% of the respondents or 281 of them have land, 103 of them do not own oxen at the time of the survey. This is one stressor for families; having a farm to land and with no oxen. This condition forces farmers to have more expenses for renting oxen or else they have to get oxen in exchange for their labor. In few instances, farmers were helped by their neighbors and relatives for free use of oxen.

One remedy that PSNP has given is credit access to buy oxen on loans. From the 153 beneficiaries who took credit loans 17 of them bought oxen. However, lack of oxen is still a pressing problem associated with livestock diseases. In their book, Judit & Matt, (2011), commented that PSNP helps families attain productive assets in the long run. But there seems to be a gap in this regard. This issue is directly related to the second objective of PSNP which is helping families accumulate assets. Farmers’ ability to accumulate assets is related to adaptive capacity of resilience. For PSNP, there is a lot to be done apart from filling the food shortage gaps in families.

The coping mechanisms used by most families have absorptive capacity of resilience. To cope with the stressors, 53% of the households were able to take credit from the local microfinance institutions. Goldstien and Udry (1999) have emphasized on the importance of credit programs in changing the lives of safety net beneficiaries. After taking loans, 26% of
households started doing sheep and goat fattening. Sheep and goat, often name as shoat are used by these chronically food insecure households. FGD participants discussed that the fattened shoats will be sold in the market for a good price. Access to credit loan is one measure of resilience and a positive coping mechanism of farmers. However, about 47% of farmers did not get access to credit. Even though they desperately wanted, they were not selected. In addition, 17% interest rate is discouraging many farmers. This shows the limitation of the PSNP in linking its beneficiaries to asset building programs.

But there is a question. What were the reasons for not linking the 47% to credits? Is there shortage of funds? FGD discussion confirmed that many farmers want to take credit to engage in business activities and to buy productive assets. In order to take credit, families are informed to form groups of ten and develop business action plans. However, the groups have to sign as collaterals for one another. In case of default, somebody has to pay; hence this issue is still under the shoulder of poor farmers. The researcher believes that credit access is a matter to be looked in to further by researchers as it is closely related to adaptive capacity of resilience.

The resilience to food insecurity of a given household is assumed to depend primarily on the options available to that household to make a living; such as its access to assets, income-generating activities, informal networks, and social safety-nets. Klaus et al., (2013) emphasized that adoptive capacity of resilience can be achieved as households make incremental adjustments in their livelihood learning from past experiences. Of those surveyed, 30% of families do other livelihood work other than farming but, the majority 70% practice only farming. In the FGD, participants discussed that some are engaged in non-farm work such as daily labor, petty trade,
weaving, pottery etc. However, when households were asked about off-farm work, their reply was there is nothing to do. Some of the daily labor tasks are seasonal. In order to engage in off-farm work, they have to go out of their village.

However, according to Béné et al (2012) research indicates that resilience is about creativity. Some households are more resilient than others because they wisely use opportunities available in their environment. What can be said is that the 30% of families who are engaged in off-farm activities in addition to their farming are able to bring more resources to their household.

One of the productive activities that could help in achieving the resilience of farmers is the use of improved varieties of seeds. Results showed that about 47% of farmers used improved seed varieties. However, if most PSNP farmers used improved seeds, this would have high impact in production and such farmers could have become more resilient towards food insecurity. However, many farmers are not willing to use such seed varieties because they are very expensive. Klaus et al., (2013) explained that one of the indicators of adoptive resilience is use of drought resistant seeds which impact production positively. PSNP provides trainings to farmers to use improved varieties but limitation is that they are unaffordable by every farmer.

About 60% of the surveyed households own less than 2 hectares of land. Particularly, the younger generation is also limited to mostly 0.5 hectares of land which is not sufficient to produce adequate levels of production. Because of such stressors families are not producing to levels of their expectation. This condition forced to them to depend on the benefits of PSNP to
supplement their household income. This situation needs higher systemic response by the host
government.

In examining their coping mechanisms, farmers use both positive and negative coping
strategies. For example, FGD participants discussed that they sale charcoal as a source of
income. Key Informant interview discussion showed that this activity leads to deforestation. On
one hand, it is an income for the family but on the other hand, it is a destruction of the
environment which directly or indirectly affects the households. Literature shows that social
protection plays a huge role in limiting the use of negative coping strategies (IEG, 2011).
According to the consumption coping strategies index, 99% of farmers rated “never” to skipping
meals in a day. PSNP did save families from selling their assets to buy food for their families;
this could have made them even poorer.

The role of community groups, and their ability to contribute to local-level resilience, may
also be increased by participatory approaches that support communities in identifying and
implementing solutions themselves. The people in the surveyed areas engage in informal safety
nets such as jigi, edir and local cooperatives. It was found that 76% are part of jigi, 87% are part
of edir and 57% are part of local cooperatives or savings associations. When beneficiaries need
money, they can borrow from local cooperatives; edir helps them during times of sorrow and
beneficiaries help one another in planting and harvest. Public works are also done in a team
arrangement. This reflected the existence of social network that can be used at times of stress.
In the FGD, participants also confirmed that they use the local cooperatives to save their money
and of course borrow when they need it.
Based on indicators of adaptive resilience, those households that have two and above hectares of land, used improved technologies such as improved seeds and fertilizers, had access to credit, and took different trainings have been sorted out of the 290 respondents. Based on these parameters, 12.7% of the respondents have adaptive capacity of resilience. The researcher believes that consistent social protection services that are inclusive of livelihood promotion, can bring this percentage higher over time.

The limitations of the study was in finding a measure of resilience that is accepted by all stakeholders working in area of food security. The term resilience has been in discussions by international organizations, experts and researchers and practitioners. For the purposes of this study, the researcher used a conceptual frame work used by Klaus et al., (2013).
Chapter Five: Conclusion, Recommendations, and Social Work Implications

5.1 Conclusion

As stated before, Dodota district is affected by a recurrent drought, livestock diseases and many other stressors over the years. In the face such stressors families have used both positive and negative coping mechanisms. In its contribution, PSNP has achieved one of its’ objectives; which is transfer of cash and food to the vulnerable households. But, this is with one limitation; transfers are not timely.

PSNP has provided several services to its clients. Such services as trainings on improved varieties of seeds, nutrition and including on gender empowerment, and business action plans are commendable. DA’s are involved at the grass root level to advice on matters related to agricultural production. However, business trainings are limited to few livestock fattening and activities. Resilience is about using opportunities and bringing innovative ideas of entrepreneurship.

The growth component of PSNP is not successfully implemented and has limitation in achieving resilience for PSNP beneficiaries. Creation of value chains for farmers’ products and promotion of trading are nonexistent. Access to credit is the essential element in achieving adaptive capacity. Although the program is designed to provide linkage to credit loans, the number of farmers who have been provided access is below expectations.
Most farmers do not work apart from farming. This shows that there is a potential dependency on safety net transfers. Based on the variables of resilience, farmers who own hectares of land with land size of two and more than two hectares, who have used agricultural inputs based on the advice of DA’s, who have diversified their income through other non-farm activities, and engaged in informal social support are more resilient than others.

5.2 Recommendations

The empirical results reported in this thesis leads to forward the following recommendations.

- Livelihood diversification should be encouraged and implemented in a border sense through expanding training programs and access to opportunities

- Credit access is highly related to resilience. The more farmers invest in productivity, the more they can achieve resilience. Creative livelihood programs and business linkages should be designed by the host government. Credit should be given to farmers who need it with minimal interest. International donors and stakeholders must provide resources to further fund the collateral portion of the microcredit component of PSNP.

- Current Behavioral change trainings provided by PSNP, should also focus to help farmers have attitudinal changes towards work and creativity.

- The government should plan and organize to provide PSNP entitlements to beneficiaries on time.

- Finally, additional research should be carried out at different locations to acquire more empirical findings on the role of productive safety net program on community and country level resilience.
5.3 Social work implications

The farmers in Dodota district have been facing drought related problems for years. This has decreased their resources and made them dependent on social safety net. While dealing with different problems in their life, farmer families devise their own coping mechanisms. But, in such conditions, it is important to have the involvement of social workers. The reality is that the poor farmers get technical assistance from the DAs working in the kebeles. In the same way, professional social workers must be assigned at each Kebele. For instance, various educational awareness programs and advices can be provided in groups also in each family. In social work practice, social workers can work along with rural farmers, social groups at the grass root level and, with different ministries at meso level to contribute for the success of productive safety net program. They can be the vital role players in the coordination between different stake holders.

All social work practitioners, regardless of their particular field of practice, share a common professional identity and work toward similar purposes. The National Association of Social Workers (1999a), in its Code of Ethics, defines this unifying purpose, or mission, of all social work as “to enhance human well-being and help meet the basic human needs of all people, with particular attention to the needs and empowerment of people who are vulnerable, oppressed, and living in poverty”. Social workers must work with the rural community and strive to achieve social justice. In the fight against rural poverty, social workers can engage in rural community planning, assessments, building community awareness and on policy analysis and development. For instance, social workers can employ ecological systems thinking and understand the broad issues that PSNP clients bring to them.
Social work education is the foundation that many carriers share a set of core competencies. It is important for social workers to have knowledge of social service delivery, ethics and professionalism. Social workers can play an outreach role. Being assigned in district or kebele levels, they can provide information to the rural farmers about the public as well as private services that can be available to farmers. They can also use the media and disseminate information about the existing problems of rural households, what PSNP is doing in this regard.

Most importantly, social workers can engage on research topics of resilience. If focus is given, PSNP program can be measured and evaluated for its effectiveness. Lessons learned can help in scaling up of the activities that already exist or drop unsuccessful ones. Social workers can involve in periodic assessments of this program and doing other research topics related to PSNP. Research informs social work in several ways. It is a tool for designing intervention strategies, measuring intervention effectiveness, and evaluating practice. Research is essential for program development and policy analysis. Social workers can also engage in the policy analysis when it is needed.
References


Appendix I: Household Survey Questionnaire

Addis Ababa University
School of Social Work

This questionnaire is prepared by Hermela Merid. I am a student of Addis Ababa University, in School of Social Work. The questionnaire is prepared as an instrument for a thesis paper to be submitted as partial fulfillment of master’s degree in Social Work. The aim of this questionnaire is to collect data about the role of productive safety net program in building the resilience of households; the stressors happening in the research area and coping mechanisms that households use to mitigate these stressors.

I would like to get your consent to participate in this study. Please be aware that participation is voluntary and you have the freedom to withdraw from the study at any time without any problem. I would also like to inform you that your identity will be fully protected. I promise not to reveal your identity in any of my report. All the information given will be kept confidential and the research report will not identify your response specifically. I also assure you that your responses will not fall into the hands of any third party other than myself. Information received will be kept private and used for the purposes of the study alone.

I believe that the study will benefit all those stakeholders who are engaged in food security; policy makers and implementers in the area of food security particularly donor assistance group and the Ethiopian government. This study will inform the food insecurity situation in the family, the role of productive safety net program in helping eligible families.

Thank you.
**Household Identification**

<table>
<thead>
<tr>
<th>ID</th>
<th>Name</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Kebele</td>
<td></td>
</tr>
</tbody>
</table>

**Basic Information Regarding the Household**

2. Name of Household _______________________

3. Sex  Male [square]  Female [square]

4. Age _____________________

5. Marital Status
   a) Single  b) Married  c) Divorced  d) Widow

6. Which group do you belong?
   a) Nuclear family  b) Single Headed family  c) Family with aged/disabled members

7. Educational Status
   a) Illiterate  b) Read and write  c) Church School  d) Other specify: _____________

8. Is the head of the household economically active?
   a) Yes  b) No


10. How many children do you have? _________________

11. Total Family size _____________________

12. Number of total dependents
   Less than 18 ___________  Over 65 ___________

13. How many members of the family are economically active?
   _______________
14. Do you children go to school?

a) Yes  b) No

**Objective 1: To examine the experiences of PSNP eligible families in coping with chronic food insecurity during times of stress**

15. What have been the main constraints in your crop production that have been challenging to you to become self-sufficient in food all year round?

<table>
<thead>
<tr>
<th>No</th>
<th>Constraints/Stressors</th>
<th>a) Yes</th>
<th>b) No</th>
<th>Three most important bottlenecks (1&lt;sup&gt;st&lt;/sup&gt;, 2&lt;sup&gt;nd&lt;/sup&gt;, 3&lt;sup&gt;rd&lt;/sup&gt;)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Drought</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Frost</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Pests and Disease</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Water Logging</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Weeds</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Lack of farm oxen</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Insufficient land holdings</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Poor soil fertility</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Lack of access to appropriate technology</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Limited know how/skills</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>12.</td>
<td>In adequate extension services from government</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td>Failure to utilize irrigation</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

16. How often do these stressors occur?

a) Every year   b) Twice in a year   c) Other, please specify________________________
17. What was the damage in your livelihood because of these constraints/stressors?
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

18. What did you do to overcome stressors/problems?
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

19. What are the constraints related to livestock rearing
   a) Stock diseases       b) Lack of sufficient grazing lands
   c) Lack of markets for livestock products  d) Other, specify________________

20. Have you tried to diversify your crops to have more production?
   a) Yes  b) No

21. Did you get better production?
   a) Yes  b) No

22. Why?
________________________________________________________________________
________________________________________________________________________
23. Which of the traditional institutions do you involve yourself? Tick that apply

a) Jigi  
b) Edir  
c) Senbete  
d) Ekub  
e) Local Cooperative  
f) Other specify ________________________

24. At times of crises, do you get help from your informal membership?

1) Yes  
2) No  

25. In what way do you get help?

________________________________________________________________________

26. Apart from PSNP, has your household received assistance from any friend or relative living outside the household?

a) Yes  
2) No  

27. If yes, what items did you receive? Please select that apply

a) Remittances (from relative living elsewhere  
b) Other cash gift  
c) Cash loan with no interest  
d) Food/grain gift  
e) Grain loan with no interest  
f) Seed gift  
g) Seed loan  
h) Free labor  
i) Free use of oxen or plough for farming  
j) Free use of pack animals for transport  
k) Other, specify ________________________

28. How many times do you eat per day?

a) One meal per day
b) Two meals per day
c) Three meals per day

29. Do you have access to land for agricultural use?
   a) Yes  b) No

30. What is the total size of the land you use?

<table>
<thead>
<tr>
<th>Land Type</th>
<th>Amount in Hectare</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cultivated land</td>
<td></td>
</tr>
<tr>
<td>Grazing land</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
</tr>
</tbody>
</table>

31. What types of assets do you have now?

<table>
<thead>
<tr>
<th>Asset Type</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cows</td>
<td></td>
</tr>
<tr>
<td>Oxen</td>
<td></td>
</tr>
<tr>
<td>Heifers</td>
<td></td>
</tr>
<tr>
<td>Calves</td>
<td></td>
</tr>
<tr>
<td>Sheep</td>
<td></td>
</tr>
<tr>
<td>Goats</td>
<td></td>
</tr>
<tr>
<td>Mules</td>
<td></td>
</tr>
<tr>
<td>Horses</td>
<td></td>
</tr>
<tr>
<td>Donkey</td>
<td></td>
</tr>
<tr>
<td>Chicken</td>
<td></td>
</tr>
<tr>
<td>Beehives</td>
<td></td>
</tr>
</tbody>
</table>
32. What type of crops, vegetables and fruits do you cultivate?

<table>
<thead>
<tr>
<th>No.</th>
<th>Crop/Vegetation Type</th>
<th>Amount of harvest in Quintals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

33. If you used animals to cultivate your farm, did you own, borrow or hire them?

a) Used own animals
b) Shared with other households
c) Rented for cash
d) Other specify ________________________________

34. Last farming season, did you use fertilizer to improve your farm’s productivity?

a) Yes  b) No

35. How many months did your production last in your household? ________ Months.

36. Did you or your household members work in activities apart from crop production and livestock rearing?

a) Yes  b) No

37. If yes, would you tell us about the types of activities your family members are engaged in and the main purpose for which you used the money? (eg. tannery, pottery, weaving etc.)

<table>
<thead>
<tr>
<th>Activity type</th>
<th>Member Participated</th>
<th>Days spent on work per month</th>
<th>Estimated annual income from the job</th>
<th>Earning used for</th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
</tbody>
</table>
38. Have you sharecropped out your plot to other farmers?

a) Yes  

b) No

39. If yes, on what basis do you sharecropped out?

a) Lack of seed  
b) Unable to purchase technological inputs  
c) Elderly and unable to operate  
d) Illness  
E) Other specify: ______________________

40. Please tick the below table 1 Consumption Coping Strategy Index (CSI)

| In the past 30 days, if there have been times when you did not have enough food or money to buy food, how often has your household had to: | Relative Frequency |
|---|---|---|---|---|---|---|
| All the time? Every day | Pretty often? 3-4 */week | Once in a while? 1-2 */week | Hardly at all? <1 */ week | Never 0*/week |
| a) Rely on less preferred and less expensive foods? |  |  |  |  |  |
| b) Borrow food, or rely on help from a friend or relative? |  |  |  |  |  |
| c) Purchase food on credit? |  |  |  |  |  |
| d) Harvest immature crops? |  |  |  |  |  |
| e) Consume seed stock held for next season? |  |  |  |  |  |
| f) Send household members to eat elsewhere? |  |  |  |  |  |
| g) Limit portion size at meal times? |  |  |  |  |  |
| h) Restrict consumption of adults in order for small children to eat? |  |  |  |  |  |
| i) Reduce number of meals eaten in a day? |  |  |  |  |  |
| j) Skip entire days without eating? |  |  |  |  |  |
41. If stressors happen in this area, are you confident that you will overcome it?
   a) Yes I can overcome such constraints as I strongly did before
   b) No, it is so hard to overcome such constraints
   c) I don’t know

42. Have you tried to do non-farm occupations instead of being a farmer?
   a) Yes             b) No

43. If yes, what professions have you tired?
________________________________________________________________________
________________________________________________________________________

Objective 2: To assess the role of PSNP in helping families achieve resilience over time

44. How long have you been a beneficiary of PSNP? _____ Years

45. By whom are you selected as beneficiary
   a) Kebele Development Agents
   b) Neighbor
   c) Community
   d) Other, ________________________

46. Do you think the beneficiary selection process is fair?
   a) Yes             b) No

47. What benefits do you get from PSNP (Circle those that apply)
   a) Food            b) Cash                     c) Supplementary food
   d) Seed            e) Farm tools               f) Credit loan
   g) Fertilizer      h) Other specify______________________

48. Do you have to work for it? a) Yes  b) No
49. For how many months in the year do you get PSNP assistance? __________ Months.

50. Do you think that the food/cash transfers you get from PSNP come on time? (Is it timely?)
   a) Yes   b) No

51. If no, what are the reasons?
   a) The ration is small
   b) The ration doesn’t come on time
   c) The ration doesn’t have varieties of preferred foods
   d) Other specify __________________________________________

52. Have you tried to harvest with improved varieties of seeds?
   a) Yes   b) No

53. If yes, what was the outcome?
   a) Better crop yields
   b) The same crop yields as before
   c) Smaller crop yields
   d) Other, specify ________________________________

54. As PSNP participant, have you been given skills training and education by the government?
   a) Yes   b) No

55. What kinds of education and skills trainings have you received from PSNP so far? Tick that applies.
   a) Training on nutrition (sufficient and quality foods for family)
   b) Bee hiving
   c) Improved varieties of seeds
d) Irrigation  
e) Soil conservation  
f) Business planning-livestock fattening  
g) Business planning-non-farm business  
h) Business planning-vegetables and fruits  
i) Other,  
   specify  

56. Are you given support from the government agents when you need assistance or advice on how to proceed with your business?  
   a) Yes  b) No  

57. As PSNP participant, have you received microfinance services such as microcredit loans?  
   a) Yes  b) No  

58. If yes, how much are you given? _____________ birr.  

59. If yes, what did you do with it?  
   ___________________________________________________________________________

60. If no, why have you not been given credit?  
   a) Interest on loan is a lot  
   b) I am not selected  
   c) I have another loan which I didn’t pay  
   d) I am not interested to do business  
   e) Other,  
      specify  
      ___________________________________________________________________________
61. If you have taken a credit, was the business profitable?
   a) Yes  b) No

62. Why?
   __________________________________________________________________________
   __________________________________________________________________________
   __________________________________________________________________________

63. Compared to last year, is your household better off, worse off, or the same? Circle that applies

<table>
<thead>
<tr>
<th>Codes: Better off</th>
<th>Codes: Worse off</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. We have access to more land</td>
<td>1. We have less land (no land)</td>
</tr>
<tr>
<td>2. Our livestock have increased</td>
<td>2. Our livestock decreased</td>
</tr>
<tr>
<td>3. We have more food</td>
<td>3. We have less food</td>
</tr>
<tr>
<td>4. We received good assistance from PSNP</td>
<td>4. The assistance of PSNP is small and not enough</td>
</tr>
<tr>
<td>5. The rains are good this year</td>
<td>5. We didn’t diversify our crops</td>
</tr>
<tr>
<td>6. We diversified our crops and got good harvest</td>
<td>6. The rains are not good this year</td>
</tr>
<tr>
<td>7. We have other jobs apart farming</td>
<td>7. We don’t work apart farming</td>
</tr>
</tbody>
</table>
Appendix II – Focus Group Discussion Questions for the Households

1. Are there shocks or stressors that have happened in this area? (It can be natural climatic, diseases etc.)
2. What are the effects of these shocks/stressors?
3. What did you do or try as soon as the stressors happened?
4. What did you do to tackle this problem in the long run?
5. What kinds of benefits do you get from PSNP?
6. Are transfers timely and adequate?
7. Do you think that the targeting system is fair?
8. As PSNP participant, what kinds of skills trainings and education did you receive from the government?
9. Have you been given support on how to use varieties of seeds, farming tools, irrigation technics etc. from government?
10. Are there complementary programs (credit, access to extension program and others) accessible to all beneficiaries?
11. What kinds of business do households engage in this area?
12. How is it profitable?
13. Are you part of informal associations such as ekub, edir etc?
14. Do you think that you are supported by these associations at times of stress?
15. Have you tried to diversify your livelihood with non-farm activities?
16. Are there households in the area who have changed their livelihood from being a farmer to other occupations?
17. Are there households that have left this area in search of other livelihood?

18. Have you tried to diversify your crops to gain high return production or increase production?

19. Have you gained more assets such as livestock, and crops with the help of PSNP over the years?

20. Do you think the benefits that you get from PSNP helps you be strong and food secure over the years?
Appendix III: Key Informant Interview Questions

1. What are the main stressors in this area?
2. How do stressors affect families?
3. How do you target PSNP beneficiaries?
4. Do you think that PSNP is helping beneficiaries become food secure?
5. Do you think the transfers are timely and adequate?
6. What months are the food gaps in the area?
7. Are there criteria’s for the transfer?
8. Are there complementary programs (credit, access to extension program and others) accessible to all beneficiaries?
9. Are there skills trainings and educational programs for the beneficiaries?
10. Are the households taking credit loans to diversify their livelihood and income?
11. What improvements have you seen in the households since the launch of PSNP?
12. Do most of the households use the credit loan benefits?
13. In your opinion which households are doing better and why?