

THE ROLE OF PRODUCTIVE SAFETY NET PROGRAM IN ENHANCING HOUSEHOLD FOOD SECURITY: THE CASE OF DEBARK WOREDA

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ABSTRACT: *Food security issues become one of the critical concern and priority area for developing countries. Having clear picture on food security status and its major challenges helps policy makers and planners to devise new policies that enhance food security. Therefore, this study discusses the role of Productive Safety Net Program in enhancing household food security the case of rural areas of Semen Gonder Zone, Debark Woreda. The two rural Kebeles have been selected agro-ecologically (One was from Kolla and one Kebeles from Dega where selected based on simple random sampling techniques). To accomplish the study, the researcher was selected 130 household using purposive sampling methods. Both qualitative and quantitative data type were employed for the study from both primary and secondary sources. The study results indicated that Productive Safety Net Program was helping beneficiaries for consumption smoothing, asset accumulation, and development of the local community. However, the Productive Safety Net Program was significantly determined by age, education level of the household head, resources (assets) in household level, infrastructure, Lack good governance, and also natural, demographic, agricultural and institutional factors. Moreover, the study also revealed that the practice of Productive Safety Net Program was challenged by a lack of monitoring and evaluation of structures, low quota, low payment and limited awareness of beneficiaries. The coping strategies pursued by rural households in selected Kebele includes; Selling of fire wood, Migration, Daily wage labor, Handicrafts, Consumption responses, Church aid (giving cash/food) and Begging. Therefore, this study suggests that to assure the positive role of Productive Safety Net Program, culture of savings and accumulation of assets, engagement of beneficiary households in diversified asset building livelihood strategies, targeting and minimizing wrong inclusion and exclusion should be improved.*

KEYWORDS: food security, productive safety net program, household, direct support and public work

INTRODUCTION

Food security is a difficult concept to measure since it deals in very broader term with the production, distribution and consumption of food. The food shortage problem is one of the major challenges in Ethiopia and this problem is more widespread in rural areas than urban areas (CSA, 2004). The productive safety net program (PSNP) is the largest social protection which represents an innovative attempt to tackle chronic food insecurity through predictable response with predictable resources for a predictable problem. Ethiopia's Productive Safety Program (PSNP) is a large national social safety net program; that responds to not only to chronic food insecurity among Ethiopia's poor, but also to short term shocks and drought. The program was launched by the Government with support of development partners, in January 2005. Initially 4.8 million

chronically food insecure people were targeted in 192 food-insecure Woredas in six regions of Ethiopia (Amhara, Oromia, SNNP and Tigray as well as Dire Dawa and Harari). The PSNP delivers cash or food transfers to about 7.19 million Ethiopians for six months each year, either through ‘public works’ or as ‘direct support’ for households that are labor-constrained, with three objectives:

- ✓ Smoothing food consumption in food insecure households,
- ✓ Protecting household assets by minimizing adoption of damaging ‘coping strategies’,
- ✓ Building community assets through ‘developmental’ public works activities (MoARD, 2009a). However, the study area PSNP expert evidences shows that, after such significant period of program implementation, however, both PSNP beneficiaries and also in some case non-beneficiaries in the Woreda were severely affected by the food crisis. That is why the area is under the Productive Safety Net Program (PSNP). In general, the situation of the food security, the study area is not an exception to the food insecurity problem. So, in order to comprehensively address the problem of food insecurity, identifying the major challenges of food security becomes crucial. Some studies were conducted regarding food challenges and coping mechanisms adopted by rural households for their food security as well as the contribution of PSNP. For example: *the study conducted by Indris S. Chifra District Afar National Regional State, Tamirat Guja conducted by Kindo Didaye Woreda Wolaita Zone, Tamene kena (2017) the case of South Gonder, Ethiopia.* Their studies depended on both (PSNP beneficiary and non-beneficiary participants) and it does not give more attention to PSNP beneficiaries regarding to their status of food security. However, this study aims to fill the existing gap with empirical pieces of evidence. Therefore, the purpose of this study is that, to assess the Role of Productive Safety Net Program in Enhancing Household Food Security: the case of Debark Woreda.

Objectives of the Study

General Objective

General objective of this research was to assess the Role of Productive Safety Net Program in enhancing household food security; the case of Debark Woreda.

Specific Objectives of the Study

1. To assess the challenges of household food security in Debark Woreda selected rural Kebeles
2. To identify the coping mechanisms adopted by rural households to cope with food insecurity
3. To realize the contribution of PSNP in enhancing households food security in the study area

Specific Research Questions

- What are the challenges of rural household food security in Debark woreda selected rural kebele?
- What are the various coping mechanisms adopted by rural households in the study area?
- What is the contribution of PSNP in enhancing rural household’s food security in study area?

MATERIALS AND METHODS

Target Population

PSNP was implemented in 8 rural Kebeles out of 33 total Kebeles found in Debark Woreda and the research where conducted in two selected Kebeles (Lomma and Abergina). From the out of 5,323 total beneficiary in the Woreda, the study population where 763 beneficiary composed of Public Works (PW) and Direct Support (DS) beneficiaries residing in the two Kebeles

Sample Size and Sampling Techniques

To achieve the role of PSNP in enhancing household food security of rural farmers in Debark Woreda, two rural Kebeles were selected purposively. These Kebeles are Abergina and Lomma. According to Woreda PSNP coordinator, the total program beneficiaries of Abergina and Lomma are 284 and 479 respectively. To determine the size of sample respondents, the malty stage procedure was followed. In the first stage two Kebeles were selected based on their geographical setting and existing agro-ecological zone (Kolla and Dega). In the second stage PSNP participant households were identified from 42 households list available at each Kebele. Therefore, 130 household was selected using snowball sampling methods and finally, the total samples were selected and stratified in to both Kebeles proportionally expressed by the Following formula:

$$PW_{Lomma} = \frac{n(N_i)}{N} = \frac{130(243)}{763} = 42$$

Where; PW = the sample size of the public workers in Kebele
 N_i = total public work beneficiaries of the Kebele
 n = total sample size
 N = total beneficiaries of both Kebeles

$$DS_{Lomma} = \frac{n(N_i)}{N} = \frac{130(236)}{763} = 40$$

Where; DS = the sample size of the direct supporters in Kebele
 N_i = total direct support beneficiaries of the Kebele
 n = total sample size
 N = total beneficiaries of both Kebeles

$$PW_{Abergina} = \frac{n(N_i)}{N} = \frac{130(193)}{763} = 26$$

Where; PW = the sample size of the public workers in Kebele
 N_i = total public work beneficiaries of the Kebele
 n = total sample size
 N = total beneficiaries of both Kebeles

$$DS_{Abergina} = \frac{n(N_i)}{N} = \frac{130(91)}{763} = 16$$

Where; DS = the sample size of the direct supporters in Kebele
 N_i = total direct support beneficiaries of the Kebele
 n = total sample size
 N = total beneficiaries of both Kebeles

Then based on the above two components the total sample

$$P_i = \frac{n(N_i)}{N} = P_{Lomma} = \frac{130(479)}{763} = 82$$

Where; P_i = the sample size of the Kebele
 N_i = total beneficiaries of the Kebele
 n = total sample size
 N = total beneficiaries of both Kebeles.

$$P_{Abergina} = \frac{130(284)}{763} = 48$$

Therefore, the total sample respondents = 82 + 48 = 130

Type and Source of Data

Both qualitative and quantitative data type were employed for the study from both primary and secondary sources. For the purpose of the study primary data was collected from 130 sample households, focus group discussion participants and selected key informants. Secondary data were collected from both published and unpublished documents, which include information about population, age structure, infrastructure situation, etc. and branches of rural Kebele office of Agriculture and Rural Development, Debark Woreda.

Study Design

To obtain a large amount of information in a short period of time for a fairly low cost, researcher was used community based cross-sectional survey; mixed method research approach was used for this study.

Data Collection Tools

- *Questionnaire*
- *Key informant Interview*
- *Focus Group Discussion*

Methods of Data Analysis

Both qualitative and quantitative data analysis was taken in this study. The quantitative data was gathered through open and closed-ended questions also data were coded and analyzed using the Statistical Package for Social Scientists (IBM, SPSS version 20). Descriptive statistics such as frequency and percentage distribution used to analyze and interpret the quantitative data. On the other hand, the qualitative data was collected through FGDs and key informant interview with program beneficiaries and Woreda and Kebele officials that are analyzed through qualitative way (by narration or discussion). Moreover for qualitative data, the interview was taken by the photo and handwriting notes.

Ethical Approval

Ethical clearance letters were collected from Debark University research and community service directorate and Semen Gonder Zone administrative office so as to safeguard both the study participants and the researcher. All participants of the research including survey households, enumerators, the supervisor and key informants were fully informed about the objectives of the study. They all were approached friendly and in a fraternal way. The researcher was developed confidentiality with all participants, enumerators and survey households. The questionnaire was designed to collect information directly related to the research questions and objectives. As a result, privacy of the participants was ensured.

RESULTS AND DISCUSSION

The Socio-Demographic Characteristics and Challenges of Food Security in Study Area

Age of respondents

Table: 4.1 Age of respondents

| Age (years) | Frequency | Percent |
|-------------|-----------|---------|
| under 20 | 7 | 5.4 |
| 20-30 | 71 | 54.6 |
| 30-40 | 39 | 30.0 |
| 40-50 | 8 | 6.2 |
| above 50 | 5 | 3.8 |
| Total | 130 | 100.0 |

The older the household head, limited working capacity and other related factors. It is presented that: majority or 71 (54.6%) are within the ages of 20-30, while 4 (6.2%) are within the age of 40-50 and 5 (3.8%) are above the ages of 50 year. From this we can understand that most of the respondents are in the productive age. This refers that the PSNP is not addressing the targeted food insecure people due to targeting problems and rather than contributing to food self-sufficiency.

Sex of Respondents

| Sex | Frequency | Percent |
|--------|-----------|---------|
| Male | 54 | 41.5 |
| Female | 76 | 58.5 |
| Total | 130 | 100 |

Table: 4.2 Sex of the Respondent

As shown in table, from the total respondents the majority or 76 (58.5%) of the population are female and the remaining 54 (41.5%) are male. This shows that most beneficiary households are headed by females. Labor supply plays a great role; due to lack of labor female headed household they are forced to rent their land. Male-headed households are in a better position to pull more labor force than the female-headed ones; sex of the household head is an important determinant of food insecurity in the study area. Women farmers may need a long adjustment period to diversify their income sources Gladwin *et al.*, (2001). Accordingly, households who are female-headed were more likely to gain from the program and probability of household to be participant where higher for female headed than male headed.

Marital Status

Table: 4.3 The Marital Status of the Respondents

| Marital status | Frequency | Percent |
|----------------|-----------|---------|
| Married | 101 | 77.7 |
| never married | 2 | 1.5 |
| Divorced | 9 | 6.9 |
| Separated | 18 | 13.8 |
| Total | 130 | 100.0 |

Based on the above table, from the total respondents majority or 101 (77.7%) are married, 18 (13.8%) of the population are separated, 9 (6.9%) are divorced and the remaining 2 (1.5%) are never married. Whether the household head is married or not can affect the food security status of the family. From this we can understand that majority of the respondents are married and have households. This finding directly goes to Haliu *et al.* (2007), households with married status as heads may have larger household sizes and thus many mouths to feed. Therefore the above table shows that there is a significant or positive relationship with participation in the program.

Educational level of respondents

Table: 4.4 Educational Levels of the Respondents

| Educational level of respondents | Frequency | Percent |
|----------------------------------|-----------|---------|
| Illiterate | 99 | 76.2 |
| read and write | 18 | 13.9 |
| Secondary | 5 | 3.8 |
| College and above | 8 | 6.2 |
| Total | 130 | 100.0 |

Education is a very important determining factor in food security. An educated farmer is able to use modern agricultural technologies, perform farming activities based on cropping calendar, and manage resources properly. The table reveals that, more than 76.2% of the surveyed household heads were not able either to read or write. Whereas 13.9% household heads were reported to be literate or read and write with attending both formal and informal education. This result shows lower as compared to CSA (2012) Ethiopian welfare and monitoring survey conducted in 2011 result which was 39.5 percent in rural areas.

Household Size

Table: 4.5 The Family Size of the Respondents

| Family Size | Frequency | Percent |
|-------------|-----------|---------|
| 1-4 | 42 | 32.3 |
| 5-9 | 70 | 53.8 |
| above 10 | 18 | 13.8 |
| Total | 130 | 100.0 |

The table depicts that majority or 70 (53.8%) respondents have 5-9 family members. This shows that majority of the respondents have many family members. A study in Mozambique shows that a large household size is negatively associated with food security Garrett and Ruel (1999). Several studies that those households who depend on limited productive resources will face food insecurity by increasing family size. For example: finding of Yilma (2005) that the family size is likely to play a role in determining the state of food security at household level.

Dependency Ratio

Dependency ratio is obtained by dividing inactive labor force (age less than 15 and above 65) by the active labor force (age between 15 and 65) with in a household. When a large household size corresponds with the availability of adequate adult labor, it can have a positive effect. But a household with more inactive productive labour force compared to the active age shows a high dependency ratio and it is more likely to be food insecure.

Socio-economic Characteristics of Respondents

Cultivable Land

Table: 4.6 The Cultivable Land of the Respondents

| Do you have enough cultivable land? | Frequency | Percent |
|-------------------------------------|-----------|---------|
| Yes | 25 | 19.2 |
| No | 105 | 80.8 |
| Total | 130 | 100.0 |

This variable stands for the total land area cultivated by the household in hectare. Total cultivated land owned by the household is taken as proxy for farm size is an indicator of wealth and income and is expected to be associated with food security. Based on this table from the total respondents 25 (19.2%) of the respondents replied that they have a land for cultivation which is adequate to satisfy their family needs and the majority or 105 (80.8%) replied that they have no a land for cultivation which is adequate to satisfy their family needs.

The results of this study is also in line with Shiferaw *et al.* (2005), as the cultivated land size increases, provide other production factor remains normal, the livelihood that the holder gets more output. Therefore, farm size and land quality as significant determinants of household food security. Based on this, it is assumed that farmers who have larger farmland in study area are more likely to be food secure than those with smaller land area and has negative relationship with the dependent variable.

Land Size

Table: 4.7: The Total Size of Land of the Respondents

| Total land size in hectare | Frequency | Percent |
|----------------------------|-----------|---------|
| Less than 1 hectare | 103 | 79.2 |
| 1-2 hectare | 24 | 18.5 |
| More than 3 hectare | 3 | 2.3 |
| Total | 130 | 100.0 |

According to the above table, the majority or 103 (79.2%) said that they have below 1 hectare, 24 (18.5%) said that they have 1-2 hectares and the rest 3 (2.3%) said they have more than 3 hectares. This clearly indicates that the households haven't sufficient land for cultivation which is adequate to satisfy their family needs.

Livestock

Table: 4.8 The Ownership of Livestock

| Livestock | Frequency | Percent |
|-----------|-----------|---------|
| Yes | 27 | 20.8 |
| No | 103 | 79.2 |
| Total | 130 | 100.0 |

Livestock is a very important asset in rural Ethiopia. It can serve as a critical input in farm operations as it enhances production and is also an important source of capital through which considerable income is generated. In the study area, where crop production is unreliable occupation, livestock make important delivery to the livelihoods of farmers and is a source of self-reliance against income shocks. Livestock species that are generally kept to make-up the livestock resources in rural areas of Debarq woreda include cattle, goats, sheep, donkeys and mules. The possible explanation is that as livestock resources are the mainstay of the local economy, rural households who managed to earn more cash income from sale of livestock and their products are better-off. Thus, such households would have better probability of getting out of food insecurity compared to their counterparts. For example, Oxen are the most important production assets for farmers in mixed farming mode of production. A pair of oxen is an indispensable input in crop production system. Moreover in the study area, ownership of oxen is an important indicator of the wealth and prestige of households. Lack of oxen is one of the major reasons that force households to rent out farmland. It also hampers land preparation and planting as they can get oxen either under rental arrangements. It is only after owners complete their own plough or through labor sharing arrangements that the oxen-less households would have access to it.

Oxen are the most important means of land cultivation and basic farm assets. Households who own more oxen have better chance to escape serious food shortages in those oxen possession allows the saving of labor and spreads employment of the family labor over peak and slack period for the farm and non-farm activities and can contribute towards ensuring food security. Moreover, oxen possession can enable good performance of crop production through improving household access to land. Based on above table, among the sample households about 103 (48.5%) and 27 (20.8%) have livestock (goats and sheep) and the others have no livestock, respectively.

Credit Services

Table: 4.9 The Provision of Credit Services

| Have you received formal credit services? | Frequency | Percent |
|---|-----------|---------|
| Yes | 30 | 23.1 |
| No | 100 | 76.9 |
| Total | 130 | 100.0 |

There are several institutions, both formal and informal, that are functional in the provision of credit needs in the study area. The major formal sources of credits in the area have been the government and Amhara Credit and Saving Institute (ACSI) and Cooperatives. These institutions focused in rendering credit services to farmers so that they used to purchase assets such as goats and bee hives, oxen and in some cases, to begin petty trade. Thus, it was assumed that households who participated in credit service can improve their income status through undertaking different activities with the credits acquired and hence improves their food security. However, respondents during the focus group discussion mentioned that:

The collateral system, repayment schedule and the risk allowance issues of the credit scheme as the major drawbacks. Informal credit institution, that functions as a source of credit in the study area includes moneylenders, friends, neighbors and relatives.

In the above table majority or 100 (76.9%) of program beneficiaries are not received the credit services. However, respondents (PSNP beneficiaries) reported that, they assumed that:

“...these days receiving loan from these sources is becoming near to impossible due to the prevalence of absolute impoverishment throughout the study area”.

The same is true that the researcher discussed with both selected Kebele beneficiaries of PSNP especially with direct support as the said that:

“The program has various roles to secure food security in the study area. Yet, they feel that they are not part of that community. The view point of direct support beneficiaries, public work beneficiaries are part of that community. Because program helps public workers to protect their agricultural land, to build dams to their crop and their livestock, and it also teaches them how to collect and feed their livestock. However direct supporters it gives only money”.

Other group of direct beneficiaries of the program rose about the loan or credit provision said that: *“They are not eligible to get credit service since they are not able to have group. Because any one who get loan or credit he/she was being a member of PSNP; public work group is a base to get credit service. However they are poor, they do not have anything; that’s way nobody wants to form a group who do not have properties and cannot do public work activities as well as other household activities. For public workers an also properties or individuals asset is criteria to get loan. Therefore without anything it is impossible to get credit from institution”.*

Extension Service

Table: 4.10 The Provision of Extension service

| Provision of Extension service | Frequency | Percent |
|--------------------------------|-----------|---------|
| Yes | 38 | 29.2 |
| No | 92 | 70.8 |
| Total | 130 | 100.0 |

Majority of the rural farmers are illiterate, agricultural extension plays a significant role in assisting farmers to identify and analyze their production problems and make them aware about opportunities for improvement. Hence, the effectiveness of the various production inputs partly relay upon the availability of sound agricultural extension services at community levels. Technological advances, attained through agricultural research and development have made substantial contributions to the spectacular increase of food production. Farm households who use advisory services provided by development practitioners are more likely to adopt better technologies and improve production. The above table shows that out of 130 beneficiaries, more than 70% of respondents did not get the extension services. Hence, household's use of extension service is expected positively related with food security however it is negatively related with participation in the program.

Market Access

The easy access to market center creates opportunity for farmers to additional income source by providing off-farm/non-farm employment, access to farm inputs and fair prices. It was, therefore, expected that households that have easy access to market places have better chance to improve food security status than those who do not have access to market centers.

During focus group discussion with both Kebele program beneficiaries, most of beneficiaries have mentioned a problem of access to market places. As they replied that:

“They are forced to walk long distance for long hours in the inconvenient and rugged topography of the study area to reach the market places. In other words, farmers are forced to travel more than 35 and 75 kilometers to reach to the major open market places (Abergin and Loma -Debank town) respectively”. The finding is related with One study conducted on factors contributing rural women food insecurity in Ethiopia, showed that the lack of roads, transport and market opportunities seriously affect attainment of food security (Mc Briarty, 2011).

Agricultural Inputs

Use of Improved Seed

Table: 4.11 The Use of Improved Seed

| Use of improved seed | Frequency | Percent |
|----------------------|-----------|---------|
| Use | 32 | 24.6 |
| Not use | 98 | 75.4 |
| Total | 130 | 100.0 |

It is an important source to increase production of crops. Hence, it is expected that the availability of improved seed is positively associated with household food security status. They can increase agricultural productivity by boosting overall production, which in turn contributes to attaining food security at the household level (Lipton, 2005). However the researcher asked the program beneficiaries whether they use the improved seeds or not. Then more than 75% of participants responded that they do not use the improved seeds but only 24.6% of total participants use to increase their agricultural productivity.

Use of Chemical Fertilizer

Table: 4.12 Use of Chemical Fertilizer

| Households using/ not using chemical fertilizer | Frequency | Percent |
|---|-----------|---------|
| Using | 43 | 33.1 |
| Not using | 87 | 66.9 |
| Total | 130 | 100.0 |

Fertilizer use has often been perceived as improving yield per unit area. Fertilizer use improves productivity per unit of cultivated area. Households using fertilizer are expected to have better food production capacity than the non-users Babu and Tashmatov (1999). The result of the study shows that about 43 (33.1%) of respondents use chemical fertilizer and nearly 70% are not use chemical fertilizer.

Irrigation

Table 4.13 Use of Irrigation System

| Use of irrigation system | Frequency | Percent |
|--------------------------|-----------|---------|
| Yes | 3 | 2.3 |
| No | 127 | 97.7 |
| Total | 130 | 100.0 |

In Ethiopia, the contribution of irrigated land in agriculture is very minimal and the whole food production activity has depended on rain-fed agriculture; the disruption of rain for a season has brought a massive food shortage and consequently hunger and famine Brehanu, (2001). Irrigation scheme had played a very important role in improving the food security status of irrigators.

However, the survey data indicated that about 97.7 percent of respondents are non irrigators they produce only in the rainy season.

Other Challenges of Household Food Security in Study Area

Low Transfers of Cash or Food

It is known that small transfers of cash are more likely to be consumed than investing, while the assets constructed by the public works activities will contribute to an improved enabling environment rather than directly generating additional income. One of the beneficiary respondents who have 7 family members from Lomma Kebele argued that:

“The payment was not enough. We have received 630 birr per month but it multiplied by all my family members. I have eight family members. However it is multiplied by three family members. This amount of money had nothing to do to change our living. The payment also lasted only for six months. Therefore, we did not have any other source of income for the remaining six months”.

One female public work beneficiary about cash transfer said that:

“My husband and I could work for 10 days per month and we will get 420 Ethiopian birr per month. It is not much for all our family members (6) but it helps little bit.

Graduation Procedures

According to the Woreda program coordinator, the main and important objective of PSNP is achieving the graduations of chronically food-insecure households through participation in public work if he/she has an estimated asset of 9,000 Birr either in cash or in kind. On the other hand, during the period of graduation households who have accumulated asset level of more than the minimum threshold, 9,000 birr may continue being the beneficiary of the program. Besides, households who do not have the minimum level of an asset for graduation (estimated 9,000 birr) were graduated for political purpose. According to the Loma Kebele PSNP co-coordinator, some beneficiaries of PSNP was graduated in 2000EC. According to him, except the first phase of graduation (by giving 4,500 ETH Birr), no one is graduated from the program until now. The researcher asked him a question about the possible reasons for the failure of graduation program. According to him, the possible reasons are the geographical nature of the area, drought, soil erosion and flood, infrastructure problem and administration problems.

Inclusion and Exclusion Principle

The rural PSNP coordinator has pointed out that there was a false inclusion and exclusion of beneficiaries asserting. PSNP was helping section of the community that is affected by the high level of food insecurity. Initially, the program beneficiaries were recruited by the community themselves, Kebele administrators and Woreda task force. However, better off individuals were found to be wrongly included, particularly individuals affected worst by food insecurity may wrongly be excluded. Corrupted officials, clan politics and quota allocation (for both inclusion and graduation) of program beneficiaries were the main cause for wrong inclusion and exclusion.

As researcher discussed with direct support beneficiaries of PSNP in Loma Kebele towards their inclusion, they forwarded that almost all informants believed that were because of consideration of the program and the kebele leader that they get support. Even if the manual of PSNP says

beneficiaries should participate and should know the criteria of inclusion and exclusion but they did not know about it.

On the other hand one of unselected sample respondent and the community member from Abergina Kebele said that: *“Last year I was benefiting from the program and now I am excluded from program without changing my livelihood. I didn’t know how and why I’m excluded, some of my community beneficiaries who are excluded from the program are had appealed to the kebele but the answer was that they know that we are not better off than others, but that the quota from the Kebele is inadequate”.*

The Coping Mechanisms of Household Food Security in Study Area

There is shortage of charcoal and firewood to cook in zonal capital Debarq. Therefore, the village people provide both charcoal and firewood to the urban people. In the area, collecting firewood either for household consumption or for sell is women’s, children’s and sometimes household head’s activity. Household members especially, Women and children are supposed to carry to the market and sell charcoal as well as firewood (75.4%). There are SNP beneficiary household heads whose income depends on selling firewood and charcoal to cope with food shortage. Thus, selling firewood and charcoal is a strategy employed by both program beneficiaries household in the study area.

In addition to selling of firewood and charcoal, respondents reflected that migration (78.5%) is mostly household’s survival strategy for food security. Some of the survey households and community elders were encouraging migration into urban centers and they also consider migration as one of the livelihood strategies and source of income for both migrants and households. One of safety net program beneficiary household head with children migrated said about means of cultivating land and how it is cause for your children to migrate ... then he said that: *“I have 11 family members and `a quarter of hectare land; I did by hand hoes, I have no plough oxen. Only three ships this are also my relative, not mine, my children support me sometimes but, the output is not enough for my family members it doesn’t fulfill my families need not enough for hand to mouth...therefore one or two children migrate to city or somewhere decreases one fourth of problem (fulfilling what they need) to me because I don’t worry for that migrated child except for their health”.*

Furthermore, this finding goes to Kelil (2015) stated that the household heads and community has positive perception towards migration as they believe it may bring changes in their livelihoods and the children’s as well.

As the food shortage prolonged, become sever and after households exhausted most of other coping strategies (76.2%) for example: the households practiced borrow grain or cash from relatives, Participate in food for work, Reduce number of meals, consume seed stock held for next season, make handicrafts to raise money for food, sent household members to eat elsewhere, limiting the portion size at meal times of the whole family, etc... are other coping strategies practiced by households in the study area.

Table: 4.14 Coping Strategies for Household Food Security

| Coping Strategies for Household Food Security | Options | Frequency | Percent |
|---|---------|-----------|---------|
| Selling of firewood and charcoal | Yes | 98 | 75.4 |
| | No | 32 | 24.6 |
| Migration | Yes | 102 | 78.5 |
| | No | 28 | 21.5 |
| Daily wage labour | Yes | 84 | 64.6 |
| | No | 46 | 35.6 |
| Consumption responses | Yes | 69 | 53.1 |
| | No | 61 | 46.9 |
| Begging | Yes | 39 | 30.0 |
| | No | 91 | 70.0 |
| Others means... | Yes | 31 | 23.8 |
| | No | 99 | 76.2 |

The Role of PSNP on Community Assets

According to Ethiopian government, PSNP provides cash and/or food transfers to chronically food insecure households in ways designed to prevent asset depletion at the household level while creating asset at the community level (FSCB, 2004). In other word specifically in public work component of the program basically meant for community asset building including the rehabilitation and enhancing of natural resources.

In focus group discussion results, PSNP in this Woreda is bringing sustainable productive activities through Public work to build community assets. Since PSNP is productive program, aimed to bring sustainable improvement on beneficiaries livelihood, it focused on rehabilitation of degraded environment in turn leads them to extract it. In addition to this the program alarmed the community about causes and consequences of environmental degradation and ways of rehabilitation. Thus activities of public work largely focus on rehabilitation of natural environment. This developmental activity (the rehabilitation of natural environment) through public work was chosen based on action plan of each targeted Kebeles. The Woreda Agriculture and Rural Development Office, those activities planned to build community assets through public work are categorized into first; Soil and Water Conservation Activities: soil bund construction, bund stabilization with grass, planting on bunds (tree and shrubs), stone check dams, brush wood check dam, degraded land rehabilitation, area closure, town cleaning and hall construction. Second; Infrastructure Construction: store construction, school maintenance, health post maintenance and animal health care construction maintenance. Third; Water Development: pond construction, water tank construction, dam construction, and spring and cleaning of rivers and finally; Road Construction: road construction and maintenance and culvert or road side construction.

The Role of Productive Safety Net Program on Household Assets

Since the objective of PSNP is improving the food security status of the beneficiaries through creating assets and at the same time preventing them from depletion. According to implementation manual of PSNP, the idea of protecting asset holding of beneficiary households is when households

become food insecure they are forced to sale their asset to meet their food expenditure. This circumstance eventually would worse the poverty situation of these poor households. Thus, it is to protect the assets from depleting that the program offers food and cash transfers.

During the data collection, the FGD participants indicated that, an important household asset for Loma and Abergina community 90% of their way of life is highly associated with livestock asset, particularly with cow, ox, horse, goat, sheep and donkey. These assets in this community, considered as a way of measuring one's position in the community.

The key informant interviews result also shown; the identification of food insecure household was undertaken after having an assessment on livestock status of that household. Therefore, in this section the great consideration was made to check what role PSNP have been playing in order to generate as well as preserve the available household assets particularly livestock.

CONCLUSION

According to Amhara National Regional State Food Security Research Assessment Report in 2002, 48 Woredas of the Amhara region are drought-prone and suffer from frequent food shortages and many households are only able to produce sufficient food to meet their food requirements for less than six months of the year. Consequently, in Debark Woreda, North Gondar zone there is chronic food insecurity in the rural communities; that is why it is under the Productive Safety Net Program (PSNP). This program (PSNP) transfers food, cash or both based on need and season either through direct support or public work activities. Beyond the immediate beneficiaries of the program, the PSNP has a multiplier development effect through the participation of able-bodied individuals in different development activities, such as land and water resources rehabilitation and developing community infrastructures, including rural road, schools and clinics. In the food security aspect, the result of the study indicates that there is a significant impact on program participants. Based on the result of this study, the rural households have very limited alternative sources of income. Hence, for these households to enhance their welfare in general and food security in particular, they must have diversified access to income alternatives. The findings of the study therefore lend support to the view that the off farm sector (petty trade, wage access through development alternatives) could be a viable option to reduce food insecurity among the rural-households.

Recommendations

- Making easy access to market center opportunity in study area in order to engage households in off-farming income generating activities.
- Fixing the transfer and distributing the money on time because as respondents revealed that, in most cases the transfer was given with wide gap between the first and next time span as a result of this, respondents might turn to their previous insecurity status and will take other coping mechanisms.
- The result of the study shows that nearly 70% the respondents are not use chemical fertilizer. Hence raising the awareness level of farmers towards understanding the profitability of using chemical fertilizer and availing it at lower cost.

- Based on targeting process, we observed that some wealthier beneficiaries were taking the cash without any condition and besides there were large size of chronic food insecure non beneficiary households in study area. This is due to biased propensity on behalf of responsible committees, administrative bodies and program coordinators. Therefore, taking some discipline measurement might be possible for those personnel.
- Regarding to institutional factors such as livelihood package and credit service should be implement in order to support the households through giving livestock for long term payment unless, it doesn't bring sustainable improvement on the living condition for beneficiaries
- The program should give high attention for developmental projects such as water harvesting (for irrigation system) rather than school maintenance, road construction
- Moreover, the researchers recommends that:
 - 1) The zonal and regional government concerned bodies should increase the support
 - 2) Change the cash support in to food
 - 3) Increase the payment/transfers of cash and multiply by each family member
 - 4) Avoid delay of support
 - 5) Facilitate better opportunities to engage in micro and small enterprises
 - 6) Make the follow-up in short time of interval
 - 7) Increase quotas to include more beneficiaries and
 - 8) Ensuring the graduation of households that became food self-sufficient by using the bench mark and replace another household on their foot in order to make a better delivery.
- Additional researches should be carried out using much larger sample size at different locations to acquire more empirical findings on the food security problems and the role of PSNP.

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Acronym

CSA – Central Statistical Agency

DS – Direct Support

EC – Ethiopian Calendar

ETHB – Ethiopia Birr

FGD – Focus Group Discussions

PSNP – Productive Safety Net Program

PW – Public Workers

SNNPR – South Nation, Nationalities and Peoples Region