

Coping Strategies of Food Insecure Households: The Case of Offa District, Wolaita Zone, South Nations Nationalities and Peoples Region

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Abstract

Background: Ethiopia is one of the low income countries encountering food insecurity for decades due to unsatisfactory livelihood strategies and in the long run it may cause severe damage to livelihoods of the poor, thereby reducing self-sufficiency.

Objective: To assess and generate specific data on coping strategies of food insecure households in Offa district wolaita zone, SNNPR.

Methods and materials: Cross sectional community based study comprised of both primary and secondary data. A sampling procedure was used to randomly select representative farm households from each kebeles. The study was applied a simplified formula of Yamane and 125 farm households were selected as sample and primary data were collected using questionnaire.

Result: The study revealed the major perceived causes of food shortage were shortage of land, shortage of water, climatic problem, and lack of input supply. The traditional farming practice, poor performance and health condition of farmers, unemployment, lack of soil fertility etc also affect them. As study predominantly the first victims are children. According to the study, the actual household income in the study area did not meet the average minimum subsistence requirement. The major coping mechanisms and people solve their temporary problem of food shortage by using different types of coping mechanisms such as engaging in labor work, livestock sale, migration to urban areas, relying on remittance from relatives, sale of wood and charcoal, reducing food consumption and requesting grain loan. Beyond these some local NGOs and GOs providing them by giving financial aid, credits services, participating in small business, job opportunity for unemployment's, awareness rising on use of technology, saving and family planning in the study area.

Conclusion: The current coping strategies are not sufficient because of they are also predominantly top down, and fail to bring the desired change in the life of the households. The findings of this study ensured that household livelihoods are highly diverse and policy-makers need to reflect on the most suitable ways of supporting this diversity.

Keywords:- causes, challenges, coping strategies, food insecurity, production, vulnerable group

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1. INTRODUCTION

Ethiopia continues to face high level of food insecurity and there are currently more than 10 million people who have been affected by drought. The deteriorating situation is compounded by high food prices; the cost of cereals has more than doubled in many markets since the beginning of the year, hampering the ability of many people to meet their most basic needs and impoverishing them further (WFP, 2009, Brown, L.,etal, 1990).

This resulted in poor performance of agricultural production for several years, to the extent that the country could not adequately feed its population from domestic production. The recurrent drought is worsening health problems such as communicable diseases, epidemic prone diseases, micronutrient deficiency, malaria, water and other vector borne diseases. In the past decades, demands for access to productive asset and particularly land became an important issue of those vulnerable and food insecure households (FDRE, 2003, Beyene Tadesse, 2008).

1.2 Statement of the Problem

In Ethiopia, the seriousness of food shortage problem varies from one area to another, depending on the state of the natural resources and the extent of food shortage (Webb et al., 1992). The land resources, mainly the soils and vegetation of the country have been highly degraded because of the interplay between environmental and human factors such as climate change, population pressure and the resultant over-cultivation of the land, deforestation, and overgrazing, technological and institutional factors (Tsfaye Zegeye etal, 1995, Yared Amare, 1999). These factors aggravated growing problem of food insecurity in Ethiopia. The dry land of Ethiopia comprises about 70% of the total landmass and 45% of the arable land. However, these areas contribute only 10% of the total crop production (Kidane, 1999). This amount of production is not sufficient to sustain the households residing in the

area. The situation is aggravated by the fact that productivity in those areas declines at the rate of 3-4 percent per year (Tesfaye Lemma, 2003).

Offa District is declared as one of the 79 chronically food insecure and vulnerable District in South Nations and Nationalities of Peoples Region. It is one of the 12 Districts of Wolaita zone which is characterized as one most of densely populated area in Ethiopia (www.academia.edu). In which all major agro-ecological zones from lowlands ('kola') to cool temperate highlands ('wurch') are represented. The District has frequent crop failure and is vulnerable to food shortage. Due to this fact, the District is slowly slipping into vulnerability as the coping strategies are drying up (Ayalneh Bogale, 2002, CSA, 2007). Hence, it becomes essential to find out the causes of the food insecurity prevailing in this District and to assess the coping strategies under taken by the Households to cope up the food insecurity. No survey to the knowledge of the researcher has been conducted in Offa District in this regard. Hence, this research was conducted to assess the major causes of food insecurity and coping strategies of food in secure households in Offa District that would enable the researcher to recommend different coping strategies, its implementations to mitigate the food insecurity and the challenges and opportunities related with coping strategies that prevails in the study area.

1.3 Objective Of The Study

1.3.1 The General objective of the study

The general objective of this study is to explain the major causes of food insecurity and coping strategies of food insecure households in Offa District, Wolaita Zone, South Nations Nationalities and Peoples Region.

1.3.2 The specific objectives of the study

The specific objectives of this study are:

1. To analyze the major causes for food insecurity at household level in the study area
2. To assess the coping strategies of the farm households to mitigate food insecurity in the study area
3. To assess the challenges and opportunities related with coping strategies in the study area

1.4 Significance of the Study

Those food insecure households will be benefited from this study. As there is no any detailed survey undertaken in the study area, this study would be a base-line for other such studies in the zone and other places in the country that have similar demographic, socio-economic and institutional factors. It is also hoped that this research will throw some light on the possible reasons, motivations and causes behind diversified modes of coping strategies in the rural area.

Moreover, in light of an increasing desire towards decentralized and localized development planning and management, this research is expected to demonstrate the importance of micro level enquiry to properly and this study could be a useful secondary source for similar studies to be undertaken in future. Furthermore, the study provides directions for further research, and also generates the updated information to the policy makers that would assist the food insecure households.

1.5 Scope of the Study

The study was conducted in Offa District, Wolaita Zone, South Nation Nationalities and peoples Region. The study covered and restricted to only three Kebeles namely *Busha*, *Wachiga Esho* and *Geleko* in the District due to available limited funding and logistic potential of the student researcher.

2. RESEARCH METHODOLOGY

2.1. Research Design

This was cross sectional community based study comprised of both triangulated quantitative and qualitative design in Offa District which is one of the 12 Districts of Wolaita Zone and located in the SNNPR Ethiopia.

2.2. Participants of the Study

Both primary and secondary data sources have been used in this study. The data on causes of food insecurity, coping strategies, challenges and opportunities of coping strategies were collected from primary sources including household respondents. Additionally, the qualitative data to support the survey were also obtained from key-informants such as district head of food security, FSO, farmers, community elder, younger people, NGOs and the FGD was conducted with FSO, model farmers, NGOs, community elders, young people, small holder farmers using a checklist prepared for this purpose.

2.3. Sampling Techniques

Offa District was purposively selected because the researcher know more about the area and it is one of the declared food insecure District in SNNPR (south nations nationalities and peoples region) among 79 selected chronically

food in secured Districts which is supported by productive safety net program (www.academia.com), and those people who are living with their food insecurity have their own coping mechanisms. As the food insecurity status is widespread in all Kebeles of the District, 3 Kebeles were purposively selected by considering the agro-ecology zones and vulnerability to the problem based on the information obtained from the District agriculture and rural development office food security program head. From several approaches to determine a sample, this study was applied a simplified formula by Yamane (Yamane, 1967 cited in Glen, 1992) to determine the required sample size at 95% confidence level and level of precision 8.8% (0.088) $n = \frac{N}{1 + N(e)^2}$ where, n= is sample size,

N= is the population (total household) and
e= the level of precision

Therefore, $\frac{3387}{1 + 3387(0.088)^2} =$ accordingly the result of Household sample size is 125. Among these sample Household Heads 20% of the sample Households Heads were Female Households Heads to make the sample population gender sensitive.

2.4. Tools of Data Collection

The FGD in each of the three kebeles has conducted, each of FGDs consists of eight participants (Food Security Organizations, model farmers, NGOs, community elders, young people, small holder farmers) and totally three FGDs were conducted. The selection of participants for FGDs was based knowledge, staying time in the area, institutional and occupational criteria. To get saturation of the information, there were also sessions for interviewing concerned bodies including the District head of food security, FSO, farmers, community elder, younger people, NGOs of the District through In-depth interview.

2.5. Data Analysis Methods

Both primary and secondary data collected for this research was organized and analyzed systematically by means of data organization through both quantitative and qualitative method of data analysis and triangulated as well as the researcher checked the reliability of data gathered from both primary and secondary sources.

Accordingly, the quantitative data acquired through close-ended questionnaire items was organized and displayed in tables to be analyzed quantitatively through the application of statistical techniques of percentage and frequencies. While the qualitative data obtained and elicited through open-ended questionnaire items were obtained from Focus Group Discussions (FGDs) and key informants were analyzed through narration and qualitative descriptions. Finally the conclusion and recommendations of the study were given.

4. RESULTS AND DISCUSSION

All the 125 households and 7 interviewees were responded 100%, while out of planned 24 participants for the focus group discussion, 19 were participated. These indicate that 97.4% of the them were responded.

Socio demographic characteristics of households

The findings of survey households in the (table 4.2) shown that, majority of respondents were male headed households and married groups of the study area. From the sample households 101(80.8%) were male households compared to female households, which were 24(19.2%). From the sampled household respondents almost 92(73.6%) were married and the remaining 5(4%), 4(3.2%), 24(19.2%) respectively were single, divorced and widow /widower. From among 125 sampled households, 40(32%) of the respondents were between the age 18-35, whereas 70(56%) were between 36-60 and the rest 3(2.4%) and 12(9.6%) were found age below 18 and above 60 years. From the sampled 125 households, 66(52.8%) of the respondents cannot read and write 28(22.4%) were read and write and the remaining 30(24%) and 1(0.8%) of the respondents have elementary and secondary and above educational level. The survey findings on table 4.3 showed that, 71(56.8%) of the households respondents said that they have no livestock production whereas 38(30.4%) of the households have 1-4 livestock and 16(12.8%) of the households have livestock above 4. Findings on the table 4.3 indicated that, 116(92.8%) of the household responded that, intercropping is dominant agricultural practices which was used. And they said that, the use of intercropping practices enhance the long-term sustainability of soils and improve the resilience of crops to solve food shortage and the rest 9(7.2%) were not using intercropping the agricultural production. The finding in Botswana also supports this result, where diversification and fiber crops was indicated to have improved the individual smallholder's income, helped them to hedge reduced impacts from price fluctuations, protection against diseases and reduced food shortage (Glantz, 1987). [Table1 below]

Table 1 Socio demographic characteristics of households in Offa District Wolayta Zone, 2014

Variables	Category	Frequency	Percent
Marital status of households	Single	5	4
	Married	92	73.6
	Divorced	4	3.2
	widow/widower	24	19.2
	Total	125	100.00
Age of households	<18	3	2.4
	18-35	40	32
	36-60	70	56
	>60	12	9.6
	Total	125	100.0
Sex of households	Male	101	80.8
	Female	24	19.2
	Total	125	100.0
Educational level of households	Cannot read and write	66	52.8
	Read and write	28	22.4
	Primary(1-8)	30	24
	Secondary(9-12&above)	1	0.8
	Total	125	100.0
Household size	<5	30	24
	6-10	61	48.8
	>10	34	27.2
	Total	125	100.00
Residing in the area in number of years lived of households	1-5	1	0.8
	6-10	8	5.6
	>10	116	92.8
	Total	125	100.0
Occupation of households farmer	Merchant	113	90.4
	Civil servant	9	7.2
	Total	3	2.4
Hectare of land of households	<1hectare	125	100.0
	1-4hectare	75	60
	>4hectare	40	32
	landless	7	5.6
	Total	3	2.4
Average crop production of household	<5	125	100.0
	5-10	88	70.4
	11-15	28	22.4
	>15	9	7.2
	Total	-	-
Production	Decreasing	125	100
	Increasing	104	83.4
	The same	15	12
	Total	6	4.6
Intercropping	Yes	125	100
	No	116	92.8
	Total	9	7.2
Livestock production	No livestock	125	100
	1-4 livestock	71	56.8
	>4livestock	38	30.4
	Total	16	12.8
		125	100

Causes of household food insecurity

This study revealed that the major perceived causes of food shortages and production deficit, the sample households were with shortage of land, lack of input supply, climatic problem, shortage of water. Additionally, the traditional farming practice, poor performance, health condition of farmers, lack of soil fertility, inefficient development agent support...etc also can affect the food security in the study area, which have greatly affected

the sustainability of production and productivity and made the study area more vulnerable and chronically food insecure.

Similarly, according to the interview and with the selected FGDs, the insect and pest infestation is another important biological factor that has been negatively affecting and limiting agricultural production in some of the study area.

The most vulnerable social groups by food shortage

As indicated on table 4.5 below, the 83.3%, and 66.6% of the respondents suggested that, children and mothers are most vulnerable to the food shortage whereas on average 50% and 50% of the respondents suggested that, the poor and landless respectively are affected most by the events. On the other hand, 33.3% and 33.3% of the respondents suggested that the large family and fathers are affected by the problem. This is in line with study done in India and Wollo(Chung, K.etal, 1997 Dagnev Eshete, 1994)

Table 2 Vulnerability level of Social Groups by food shortage

Vulnerable group	Poor	Landless	Children	Mother	Large family	Father
Food Security Office Head	X	X	X	X	-	-
Farmers	-	-	X	X	X	X
FSO	-	X	X	-	-	-
Aged peoples	X	-	-	X	X	-
Young peoples	-	X	X	-	-	X
NGOs	X	-	X	X	-	-
Total	3	3	5	4	2	2
Percent	50	50	83.3	66.6	33.3	33.3

The major coping strategies of food insecure households during food shortage

Farm level adaptations arise from the farmers' perception of changing conditions. In the study areas, food insecure households have practiced different coping strategies to overcome the consequences to food insecurity thus far and to manage their future patters. Farming is the primary occupation for 90.6% of the sampled households although they combine some level of non-farming income sources. The high degree of dependence on farming activities calls for major adaptation to happen in the farming sector as this sector is directly affected by the different food shortage problems. This finding is consistent with study conducted in national level on coping strategies for food insecurity (Kidane Georgis, 1999).

In line with this, as indicated on [table 2], the present study identified that the food insecure households major coping mechanisms that most of time peoples practice to solve their problem in the study area when they face food shortage were *engaging in labor work, livestock sale, migration to urban areas, relying on remittance from relatives, limiting family size, sale of wood, sale of charcoal, requesting grain loan, reducing food consumption and begging*. This consistent with study done in Diredawa and North Shewa(Ayalew Y, 2003, Abebaw S, 2003)

Table 3 Coping strategies among households in Offa district Wolayta zone 2014

Coping strategies	Level of cont.	No	V/low	Low	High	V/High	Total
		0	1	2	3	4	
Migration to urban areas	Frequency	-	5	25	80	15	125
	Percent	-	4%	20%	64%	12%	100%
Engaging in labor work	Frequency	-	8	17	62	38	125
	Percent	-	6.4%	13.6%	49.6%	30.4%	100%
Livestock sales	Frequency	-	16	47	45	17	125
	Percent	-	12.8%	37.6%	36%	13.6%	100%
Requesting grain loan	Frequency	7	32	68	18	-	125
	Percent	5.6%	25.6%	54.4%	14.4%	-	100%
Relying on remittance from relatives	Frequency	11	12	23	64	15	125
	Percent	8.8%	9.6%	18.4%	51.2%	12%	100%
Sale of wood	Frequency	-	12	79	29	5	125
	Percent	-	9.6%	63.2%	23.2%	4%	100%
Sale of Charcoal	Frequency	7	58	43	17	-	125
	Percent	5.6%	46.7%	34.4%	13.6%	-	100%
Reducing food consumption	Frequency	-	5	72	26	22	125
	Percent	-	4%	57.6%	20.8%	17.6%	100%
Limiting family size	Frequency	-	8	32	61	24	125
	Percent	-	6.4%	25.6%	48.8%	19.2	100%
Begging	Frequency	107	13	5	-	-	125
	Percent	85.6%	10.4%	4%	-	-	100%

CONCLUSION AND RECOMMENDATION

In general, the overarching stressors that are enhancing societal vulnerability to crisis are shortage of land, shortage of water, climatic problem, lack of input supply, the traditional farming practice, poor performance and health condition of farmers, unemployment, lack of soil fertility...etc as the main causes of food shortage in the study area, that have greatly affected the sustainability of production and productivity and which made the study area more vulnerable and chronically food insecure. Accordingly, to improve the households' food security in the District; the highly degraded part of the area should be rehabilitated and the existing land resources should be protected.

Accordingly, soil and water conservation activities, such as gully treatments, establishment of nurseries and a forestation/reforestation are highly recommended. Expanding small scale irrigation and water harvest technology is highly recommended and the involvement of institutions, farmers and other concerned bodies on early warning and robust contingency planning is crucial. Promoting the attitude towards using effective level of fertilizer input under increasing land scarcity, improving the efficiency of inorganic fertilizer and promoting sustainable cropping practices is crucial to reduce social vulnerability to food insecurity. Enhancing and expanding rural credits to subsistence farmers in the area should be one of the primary areas of interventions. Rural credit service can help farmers in solving capital problem to buy farm oxen, modern farm inputs, use for trade, off-farm activities, and further enhancing use of technologies. Applying different crop species in the farm is basic and primary concern to increase the soil fertility, diversification and production, so that farmers recommended using different crop species to improve yield.

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