Journal of Sustainable Development in Africa (Volume 14, No.5, 2012)
ISSN: 1520-5509
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THE ROLE OF OFF- AND NON-FARM ACTIVITIES IN ACHIEVING SUSTAINABLE RURAL LIVELIHOODS SECURITY IN GUBALFTO *WOREDA*, NORTH WOLLO ZONE, AMHARA REGION STATE, ETHIOPIA

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ABSTRACT

The study used the case study approach to examine the role of off-and non-farm activities in achieving sustainable rural households' livelihoods security in Gubalafto *Woreda*. Questionnaire surveys, focus group discussions, key-informant interviews, and field observations were used to generate primary data. Findings of study indicated that non- and off-farm activities are not positive outcomes of agricultural growth or productivity but of shocks induced by rainfall variability, land degradation and technological deficiencies. Income derived from both agriculture and non- and off-farm activities by the majority of the study respondents was insufficient to meet their livelihood needs as the activities lacked the necessary support for their growth. However the study acknowledged that these activities remained important fall-back strategies contributing towards livelihoods security, hence the call for greater government intervention to enable all actors to participate in them**.** Policy changes aimed at stimulating the agricultural sector and these activities were recommended to achieve sustainable households' livelihoods security.

Keywords: Off- and non-farm activities; sustainable livelihoods; agriculture; Ethiopia; Africa.

INTRODUCTION AND STATEMENT OF THE PROBLEM

During the past two decades, the food security debate has come to recognize that sustainable rural livelihoods are not solely dependent on income obtained from agricultural activities, but are often supplemented by non- and off-farm activities (Reardon, 1997; Ellis, 1998, 2000; Carswell, 2000). According to Ellis (2000), the term off-farm refers to income from wage or exchange labor on others' farms. It includes labor payments in kind such as harvest share systems, income obtained from local environmental resources such as firewood, charcoal, house building materials, and wild plants. On the other hand, non-farm income refers to non- agricultural income sources and these include non-farm rural wage or salary employment, non-farm rural self-employment, rural income obtained from leasing land or property, urban-to-rural remittances arising from within national boundaries, and other urban transfers to rural households such as pension payments to retirees and international remittances arising from cross border and overseas migration.

In Ethiopia, the current food security policies and "sustainable poverty reduction" strategies acknowledge the importance of non- and off-farm activities to ensure livelihoods security. However, the implementation of these intervention measures varies from place to place. Studies done in some parts of Ethiopia suggest different outcomes. Some perceive non- and off-farm activities as potential areas of growth that can link agriculture to the non- agricultural sector (Tegegne, 1995) while others treat them with reservation or consider them as mere survival strategies at best (Mulatu and Teferi,

1996). The role of rural non-and off-farm activities in the development process therefore still remains inconclusive. This is the debate that this study attempts to contribute to.

This study utilizes the case study approach to assess the contribution of non- and off-farm activities at household level to sustainable rural households' livelihoods security in Gubalfto *Woreda* (District), North Wollo Zone, Amhara Region. The study describes the nature of observed patterns of a mix of livelihood activities and income diversification not only in light of economic objectives aimed at offsetting income shortfalls but also in light of social objectives.

The general objective of this study is to assess the contribution of non-and off-farm activities to sustainable rural households' livelihoods security. In line with this, the specific objectives of the study are to:

- explore the characteristic nature of non-and off-farm activities in the study *Woreda;*
- assess the contribution of non- and off-farm activities to household incomes;
- examine institutional challenges and suggest policy recommendations to stimulate the activities.

This study is valuable to academics and policy makers in that first, from the academic point of view, assessing the contribution of non-and off-farm activities at household level to sustainable rural livelihoods security improves our understanding of the dynamics of secure rural households' livelihoods and hence contributing to the sustainable rural livelihoods debate. Secondly, assessing locality specific challenges provides some input for decision makers and development practitioners in refining their policies and strategies to enhance the performance if these activities.

RESEARCH METHODOLOGY

The main purpose of this study is to describe the character of non- and off -farm activities as well as their role in rural households' livelihoods security. Therefore households having additional activities other than farming were included in the universe for the study of non-and off-farm activities. Three out of a total of 31*kebeles* (villages) of the study area were purposefully selected for study. About 15% of the populations in each of the 3 selected *Kebeles* were randomly selected for study.

Primary data were collected using survey questionnaires, focus group discussions, key informant interviews and personal observations. The questionnaire solicited information on demographic and socioeconomic characteristics of survey respondents, their farming activities and farm incomes, off- and non-farm activities and their related incomes, institutional or organizational support, and the challenges faced by off- and non-farm activities. It was pretested and questionnaire administrators went through an induction on how to administer the questionnaire.

Two focus group discussions were held in each *kebele* to clarify issues not fully covered by the questionnaire and other related issues. A checklist of issues was prepared to ignite discussions and allow participants to unravel and analyze their own situations and experiences.

Key informant interviews were held with representatives of governmental institutions and individuals knowledgeable about the study area. Personal observations were also employed to get a graphic image of the operation of non-and off-farm activities.

Secondary data sources for the study were obtained from base-line surveys done by some non-governmental organizations (NGOs) (Save the Children UK, 2003), government and local authority reports and other published sources.

CONCEPTUAL FRAMEWORKS ON NON-AND OFF- FARM ACTIVITIES

The literature on off- and non-farm activities is characterized by a number of perspectives (Ellis & Biggs, 2001; Bryceson, 1997, 1999; Ellis, 2000). For the purpose of this study, attention is given to two: deagrarianization and sustainable livelihoods as they relate to off- and non-farm activities.

The deagrarianization perspective views diversification into non-farm activities as part of a process of the erosion of the agrarian way of life. It is seen as an evolutionary move of rural populations to modernization and the spread of rural off- and off-farm activities (Bryceson, 1997). However critics questioned the sustainability of rural livelihoods under this perspective and this led to a paradigm shift to the new approach which emphasizes sustainable livelihoods (Bryceson, 1999; Swift & Hamilton, 2001).

The Sustainable livelihoods approach perceives rural off- and non-farm activities as livelihood strategies of rural households diversifying in response to 'push' or 'pull' factors. Push factors include factors such as land degradation, population pressure and declining fertility, which force rural populations to diversify into occasional wage labor, petty commodity production as well as migration in search of means that will provide sustainable livelihoods (Barrett *et al*, 2001). Pull factors include the realization of complementarities of activities, higher returns on investments in the non-farm economy, economic opportunities often associated with comparative advantage accorded by superior skills, etc (ibid).

According to the sustainable livelihoods approach, poverty and food insecurity are not only results of shocks but also effects of a set of complex arrangements and historically accumulated factors that have operated over the years. The framework of this analysis places off- and non-farm activities as well as migration, as diversification livelihood security strategies within the wider set of the sustainable livelihood system of a household, whereby households diversify their sources of income in addition to cropping or livestock rearing (Tesfaye, 2003; Barrett *et al*, 2001).

Both approaches converge on the driving forces for the prevalence of off- and non-farm activities in rural areas of mostly developing countries. While deagrianization tries to discuss off-and non-farm activities in light of specialization and as processes of long term moves out of rural life, the sustainable livelihoods approach focuses on their contribution to sustainable household livelihoods security (Bryceson, 1999). It is this focus of the latter perspective on sustainable rural livelihoods security that made it selected to guide this study.

REVIEW OF RELATED LITERATURE ON OFF- AND NON-FARM ACTIVITIES IN ETHIOPIA

The importance of off- and non-farm activities to ensure sustainable livelihoods security in Ethiopia has been at the center of investigation during the past 20 years (Tegegne, 1995; Mulatu and Teferi, 1996; MOLSA, 1997; Mulatu; 2001; Tasew, 2002; Wondeye, 2005). However, indications are that the debate is still far from being over. Different perspectives have imaged on whether these activities can lead to the attainment of sustainable livelihoods security. Some pertinent empirical works on the issue are reviewed in this section.

The study done by Tegegene (1995) on assessment of Ethiopia's agricultural land resources indicated that involvement in non-agricultural activities positively influenced farm productivity. It noted that farmers involved in non-farm income in Damotgale and Kachabira *Weredas* were prompted to cultivate more land, utilize fertilizers and engage in cash crop production. The study emphasized the importance of production linkages between the farm and non-farm activities and recommended the expansion of education and the development of the livestock sector as a means to enhance rural growth linkages. It further recommended that rural development policies should focus on broader local development strategies that integrated the farm and non- farm products. Such an approach was deemed to ensure sustainable rural livelihoods and prosperity.

Another linkage study by Mulatu and Teferi (1996) on Gera Mider, Ankober, Debre Birehan districts in Northern Shoa recognized the relative importance of farm and non-farm linkages for bringing about effective development. It found out that 59.5% of the total cash income of farming households were from off- and non-farm activities. It noted that while these activities were low return activities used as survival strategies by households faced with declining land size and agricultural productivity, they made significant contributions to rural livelihoods' security. The study recommended the reallocation of labor and land toward livestock production and forestry to enhance farm- non-farm linkages. It further underlined skills training as an important strategy to improve the potential contribution of the non-farm sector to sustainable livelihoods security.

An assessment made by the Ministry of Labour and Social Affairs (MOLSA) (1997) on agricultural wage employment and rural non-farm employment in Ethiopia showed that rural non-farm activities were characterized by low capital requirements, low-quality products, and low-productivity jobs. About 21% of the rural populations in Afar, Amhara, Tigray, and Southern Nations, Nationalities and Peoples Regional State were reported to have supplemented agricultural production with non-farm income indicating the relative importance of the activity.

Mulatu (2001) underscored the importance of market information for labor and agricultural products. He pointed out that training in entrepreneurship and management, technology development and dissemination among crafts people, the need for cooperative-supported activities and the expansion of social and physical infrastructure were essential to maximize the benefits from non- and off-farm activities.

Carswell (2000) focused on how much women contribute to household well-being through diversification and the importance of non-farm activities to increase cash income for poorer households. The study results revealed that participation in off- and non-farm activities varied among localities, different wealth groups and households depending

on access to infrastructure and institutions, household size, ownership of assets, and social networks. It further noted that credit services tied only to purchasing agricultural inputs such as fertilizer and seeds were not poor-friendly. While the study's historical analysis of contexts and trends of off-farm and non-farm activities in Wolyta largely concurs with the quantitative justification of Mulatu and Teferi (1996) that they are survival strategies, it specifically highlights that the poor are not benefiting much from such activities because they are denied credit services to enhance their activities. Thus, its recommendation relating to the need for targeting the poor in training and credit services to enhance the farm-non-farm linkages and reduce the unequal ring effect of the non- farm activities distinguishes itself from other studies.

Tasew (2002) in a study on rural farm/non-farm income linkages in Northern Ethiopia argued in favor of farm- non-farm linkages. The study's findings in Enderta and Adigudom districts showed that farming households derived 35% of their total annual income from off-farm wage labor and 8% from non-farm activities. It noted that farmers with better skills such as carpentry and masonry had an advantage over those with limited or no skills at all and that relatively wealthy ones had greater opportunities in undertaking the most remunerative activities. The study further noted that income diversification into off-farm activities could increase agricultural output per unit because, apart from providing additional income that enabled a household to purchase farm inputs, farmers could also acquire managerial skills and experience that could help them minimize soil mining and maximize production using better farming practices. However, it was not clear as to how and to what extent this could be facilitated because farmers had been practicing off-farm activities including public work programs for years and yet such farm productivity had not yet come about.

Wondeye's (2005) research on rural non- and off-farm activities and factors affecting households' involvement presented locality specific quantitative justifications for the importance of the activities. The study noted that access to education, credit, natural resources, family size, and policy issues affected households' involvements in non-farm or off-farm activities and needed special attention.

What seems evident from the reviewed empirical works are two schools of thought: some studies highlight off- and non-farm activities as potential areas of growth that can link agriculture to the non-agricultural sector hence leading to sustainable food security (Tegegne, 1995) while others treat them as mere survival strategies (Mulatu and Teferi, 1996). Thus, their role in attaining sustainable livelihoods security is not quite clear. This study complements these and other studies devoted to ascertaining the role in achieving this goal.

THE STUDY AREA

Gubalfto is one of the eight *Woredas* in North Wollo and lies between 11^0 36' and 11^0 58' North latitude and 39^0 12'' to 39^0 50'' East longitude. It is bounded by Kobbo District in the north, Habru in the south and southeast, Gidan in the northwest and Meket in the west (Figure 1). The administrative town of this Woreda, Waldeya, is also the administrative town of North Wollo Administrative Zone of Amhara Regional State. The *Woreda* is divided into 31 *kebeles* (villages) of which three – Hara, Amaya-Mecha, and Geshober - are purposefully selected for study.

Information from maps and reports kept at the Gubalafto Woreda Agricultural & Rural Development Office (GWA&RDO) indicate that the topography of the *Woreda* in general is varied: its landscape is characterized by a steep escarpment and a chain of mountainous topographic features in the west, north, and north- west while the eastern and, to

a limited degree, southern parts represent fairly plain depicting lowland topographic features. The *Woreda* thus largely consists of a hilly terrain, with little lowland plains towards the east.

The agro-ecological zones range from extremely cold *(dega)* which lies above 2500 meters above sea level (masl) and receives more than 2500 millimeters (mm), to temperate (w*oyina dega)* which lies within 1501-2500 masl and receives 1501-2500 mm to hot lowland (*Kola)* region which is within 500-1500 masl and receives 500-1,500 mm of rainfall (GWA&RDO, 2009).

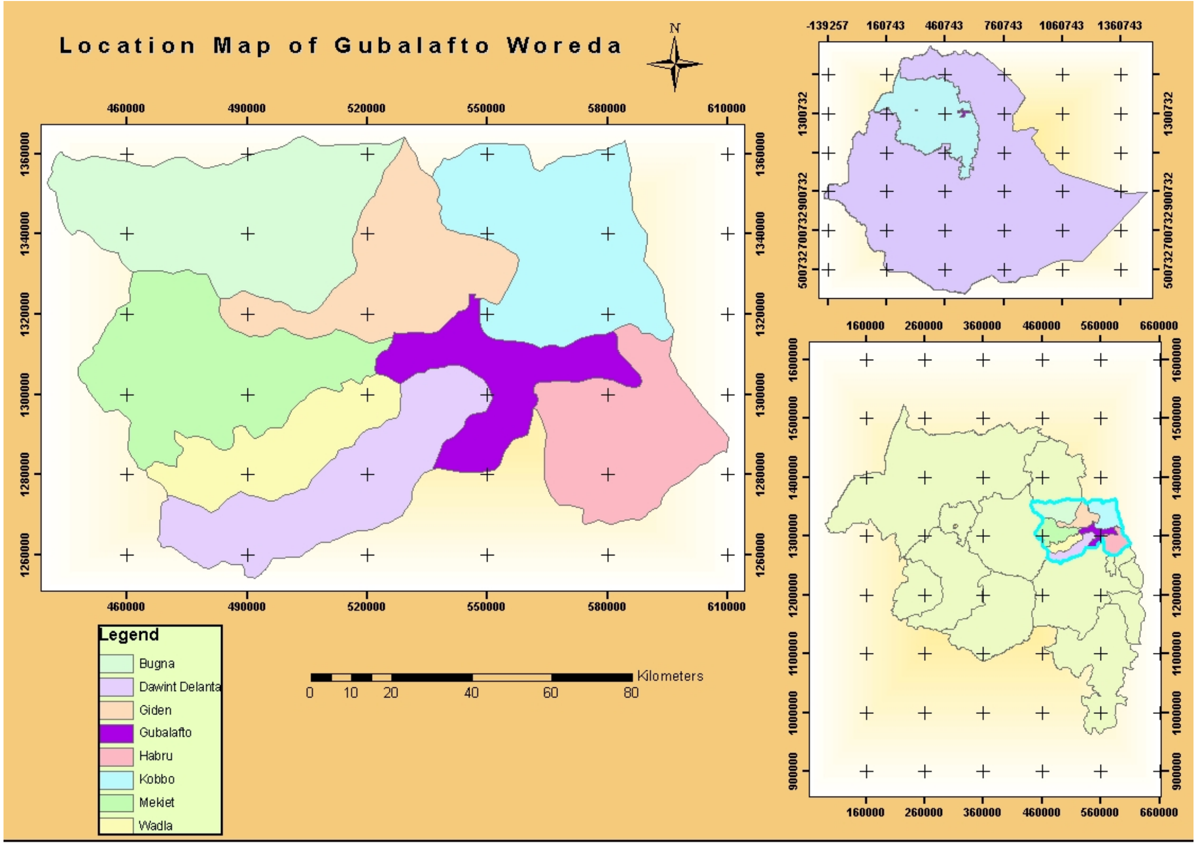

Figure 1: Location Map of Gubalafto *Woreda*

Source: GWA&RDO (2009).

According to the information from the Woreda Agriculture and Rural Development Office, the Woreda experiences a bi-modal rainfall pattern with two short rainy seasons. The first season - *belg* (spring) starts in March and lasts until May while the second - *mahar* (summer) starts from July till September. The latter rains provide most of the annual rainfall.

The total area of the *Woreda* is about 80,000 hectares of which 27,056.6 hectares are cultivated land, 7,763.5 hectares grazing land, 9,292.5 hectares forest land, 9,936 hectares settlement land and 26,831 hectares marginal land (GWA&RDO, 2009).

RESULTS AND DISCUSSIONS

This section presents results and discussions on the background characteristics of survey respondents, the nature and contribution of off- and non-farm activities to livelihoods security in Gubalafto Woreda, institutional support systems and related challenges, and policy recommendations to stimulate non- and off-farm activities.

Background Characteristics of Survey Respondents

In this study, survey respondents were household heads. Survey results showed that 77% of the households were male headed while 23% were headed by females (Table 1). A little over two-thirds of the total respondents (67%) were followers of Orthodox Christianity while the remaining 33% were Muslims. Others such as Protestants and Catholics were not reported at all. Regarding marital status, 80% of the respondents were married 5% unmarried, 8% divorced, and 7% widows.

Table 1: Background characteristics of household respondents

Sex	Hara		Amaya-Mecha		Geshober		Total	
	Count	%	Count	%	Count	%	Count	%
Male	37	82.22	49	70	56	80	142	76.76
Female	8	17.78	21	30	14	20	43	23.24
Total	45	100	70	100	70	100	185	100
Religion								
Ethiopian Orthodox	7	15.56	48	68.57	69	98.57	124	67.08
Islam	38	84.44	22	31.43	1	1.43	61	32.97
Total	45	100	70	100	70	100	185	100
Marital status								
Married	39	86.67	52	74.29	57	81.43	148	80
Unmarried		0	6	8.57	3	4.29	9	4.86
Divorced	2	2.22	8	11.43	6	8.57	15	8.11
Widower	5	11.11	4	5.71	4	5.71	13	7.03
Total	45	100	70	100	70	100	185	100
Age								
< 20	-	0	1	1.43	-	0	1	0.54
20 – 30	4	8.89	12	17.14	8	11.43	24	12.97
31 – 40	15	33.33	23	32.86	27	38.57	65	35.14
41 – 50	14	31.11	22	31.43	25	35.71	61	32.97
51 – 60	8	17.78	7	10.00	4	5.71	19	10.27
> 60	4	8.89	5	7.14	6	8.57	15	8.11
Total	45	100	70	100	70	100	185	100
Mean of age	44.80		43.04		43.74		43.74	
Family Size								
1 – 4	12	26.67	25	35.71	34	48.57	71	38.38
5 - 8	29	64.44	42	60	35	50	106	57.30
Above 8	4	8.89	3	4.29	1	1.43	8	4.32
Total	45	100	70	100	70	100	185	100
Mean	5.78		5.33		4.91		5.30	
Education								
Illiterate	23	51.11	35	50	25	35.71	83	44.86
Read& write	7	15.56	5	7.14	15	21.43	27	14.59
Grades 1 – 6	10	22.22	10	14.29	18	25.71	38	20.54
Grades 7+	5	11.11	20	28.57	12	17.14	37	20
Total	45	100	70	100	70	100	185	100

As for the age of respondents, the majority of them (82%) were between the ages of 20 – 50 with a mean age of 44 years indicating their youthfulness and hence their potential to venture into non- and off-farm activities.

Survey results further indicated that 57.3% of the respondents had family sizes ranging between five to eight while 38.38% had one to four members. The mean family size was five. The largest family had 11 members and was reported in Hara. This is possibly related to the fact that Muslims tend to be more polygamous than Orthodox Christians.

With regard to educational status, 44.86% of the respondents were illiterate, 14.59% could read and write, 20.54% attended grades one to six while 20% have attended beyond grade seven. This indicated that the majority of the people in the study sites did not attend formal education. Geshober appeared the least illiterate where 35.71% of the respondents were reported to be non-literate followed by Amaya-Mecha and Hara whose corresponding figures were 50% and 51.11% respectively. The highest educational achievement was recorded for Amaya-Mecha where 28.57% of the sample respondents attained grade seven and above. Indeed, educational levels were very low implying their limitations to engage in new technologies.

FARMING ACTIVITIES

Access to land

Survey results indicated that of the total sample respondents, 11 (5.95%) wee landless, 115 (62.16%) owned 0.51 hectares and below; 48 (25.94%) owned 0.52 – 1.03 hectares while the rest 11 (5.94%) owned 1.04 and above (Table 2). The largest farm size of 2.3 hectares was located in Hara while the smallest one measuring 0.13 hectares was in Geshober. The average land holding size of households in the study sites was 0.53 ha. This was much smaller than the average landholding size of Amhara Regional State, which was of 0.97, and smaller than the national average of 0.95 hectares (CSA, 1998), indicating that the land sizes of the study area were small and hence had some effect on crop production.

Table 2: Farm sizes

Holding size (ha)	Hara		Amaya- Mecha		Geshober		Total	
	count	%	count	%	count	%	count	%
Landless	3	6.67	2	2.86	6	8.57	11	5.95
< 0.25	6	13.33	8	11.43	18	25.71	32	17.30
0.26 -0.51	10	22.22	35	50	38	54.29	83	44.86
0.52 – 0.77	10	22.22	23	32.86	7	10	40	21.62
0.78 – 1.03	5	11.11	2	2.86	1	1.43	8	4.32
1.04 – 1.3	2	4.44	-	-	-	-	2	1.08
> 1.3	9	20	-	-	-	-	9	4.86
Total	45	100	70	100	70	100	185	100
Mean holding size	0.79		0.53		0.38		0.53	

Soil fertility greatly affects agricultural production. Much of the land in the study *Woreda* was degraded. The Woreda Agricultural Officer attributed this mainly to poor natural vegetation cover, deforestation, and poor agricultural extension practices. Some of these sentiments were also highlighted by the survey respondents. When asked whether their land was fertile or not, only 16 (9.20%) indicated that their land was fertile while the majority 124 (71.26%) and 16 (9.20%) indicated that it was semi-fertile and poor respectively.

Crop farming

Mixed farming was practiced in the study sites. According to key informants, crop production was mainly rain-fed and of subsistence nature. It relied on archaic traditional farm technologies such as wooden plough for tilling and as a result, households did not produce enough to feed themselves.

With regard to the utilization of modern agricultural technology, survey results showed that of the 174 respondents who had access to land, 118 (67.8%) had access to some form of input(s). Multiple response results showed that 68 (57.3%) had access to fertilizer such as urea and DAP, 28 (23.73%) to improved seed, 15 (12.71%) to pesticides, and only one person reported having acquired cross breed livestock. While use of fertilizers wa relatively high, that of improved seeds and pesticides was certainly low and affected farm produce. The proportion of non-utilizers also tended to vary from area to area.

The majority of the survey respondents (65.95%) indicated that their crop production had declined over the years. Land degradation, rainfall variability, lack of improved seeds and the high costs of inputs were cited as the major causes of the decline. Both key informants and focus group discussions confirmed that rainfall variability was a serious problem in Amya-Mecha and land degradation in Geshober and Hara.

Survey respondents were asked about the sufficiency of agricultural production for household consumption. The results showed that the majority (66.49%) indicated that they did not produce enough to see them through to the next season while 33.51% responded that they produced enough. However, there were variations in the study sites: with a high of about 73.33% in Hara and a low of 55.7% in Geshober citing that annual crop production was not enough for annual consumption. These variations were also confirmed during FGDs.

Livestock ownership

In the study areas, cattle, sheep, goats and pack animals were reared for economic as well as social dictates. However, according to one key informant, the cumulative effects of recurrent droughts and the resultant cattle losses had eroded the asset bases of most farmers of the study locality. According to one key informant, livestock in Hara were viewed not only as an important source of income but also as a measure of social prestige. But with drought and lack of fodder cattle ownership had declined and people were less interested in cattle rearing. The situation was worse in Amya-Mecha and Geshober where community grazing land is almost lacking due to population pressure.

The livestock ownership status of the peasants of the study sites was expressive of the cumulative effect of past and present circumstances. Table 3 showed the average livestock ownership of the survey respondents. Tropical livestock

units (TLU) were used in this study and the standard conversion factors used to convert into tropical livestock unit were 0.1 for goats and sheep, 0.5 for donkey, 0.8 for mules and horses, 0.7 for cattle and 1.0 for camel (Johnke, 1982).

Table 3: Average livestock ownership (in Tropical Livestock Units [TLU]).

Livestock type	**Hara**			**Amaya-Mecha**			**Geshober**			**Total TLUs**
	C*	A**	TLU	C	A	TLU	C	A	TLU	
Ox	51	1.13	0.79	78	1.1	0.77	83	1.18	0.83	0.8
Cow	39	0.87	0.6	46	0.65	0.46	54	0.77	0.54	0.52
Heifer	52	1.15	0.8	48	0.68	0.48	74	1.05	0.74	0.65
Donkey	-	-	-	27	0.38	0.19	30	0.42	0.21	0.15
Goat	34	0.76	0.08	57	0.81	0.08	62	0.88	0.09	0.08
Sheep	11	0.24	0.02	66	0.94	0.09	100	1.42	0.14	0.09
Camel	24	0.53	0.53	-	-	-	-	-	-	0.12

C* denotes count, number of livestock reported by respondents

A** represents average head of livestock owned by households

According to Sharp, Devereux, & Amare (2003), households that cannot afford to maintain a pair of oxen can be called destitute or vulnerable hence households in the study area were considered as such. On the whole, ownership of livestock wa very low.

FGDs revealed that livestock production in the study area was declining. They cited rainfall variability, lack of grazing land and population pressure as the major challenges which underpinned the decline of livestock production in the area. It was revealed that lack of natural fodder and forage development technologies negatively impacted the activity. The problem was exacerbated by local governance land redistribution of community grazing land to the landless youth.

OFF-FARM AND NON-FARM ACTIVITIES

Nature of off-farm and non-farm activities

As fall-back strategies to improve their livelihoods, households combined farming with off- and non-farm activities. According to key informant interviews, off- and non-farm activities of the study sites included weaving, firewood selling, public works (direct safety net participation), dung selling, pot making, iron work, tree felling, carpentry, priesthood, security service, g*icha* extraction (a natural spice of good fragrance), to name some. It was revealed that most households had one or more additional sources of income other than farming.

Survey respondents were asked to identify their sources of additional income or that of other members of the family in the last 12 months. Their responses were summarized in Table 4.

Table 4: Sources of off-farm and non-farm income

Income sources	Hara		Amaya-Mecha		Geshober		Total	
	Count	%	Count	%	Count	%	Count	%
Petty trade	16	35.55	23	32.85	21	30	60	32.43
Pottery	-		4	5.71	2	2.28	6	3.24
Ironwork	-		4	5.71	-		4	2.16
Public works/wage labor	12	26.67	48	68.57	38	54.28	98	52.97
Hide-work	-		-		1	1.4	1	0.05
Weaving and spinning	2	4.44	18	25.71	-		20	10.81
Remittances, pension payments and gifts	14	31.11	13	18.57	8	11.42	35	18.91
Tailoring	-		-		9	12.85	9	4.87
'Others'	25	55.5	34	48.57	28	40	87	47.02

Survey results indicated that major off- and non-farm activities carried out in the study sites include public works (safety net programs) (52.97%), 'others' (47.02%, petty trade (32.43%) and weaving and spinning (10.81). Activities that were lumped under 'others' were mostly of a small nature and included tree planting, selling natural sisal, boring farm implements, mudding houses, renting pack animals, house renting, selling natural honey, embroidery, hairdressing, mediation/arbitration, dung selling, pot maintaining, traditional massage, traditional midwifery, traditional eye medication, money lending, tree felling, firewood selling, Islamic teaching services, priesthood, security services, masonry, brewing local drinks, roof thatching, carpentry, quarrying, and *gicha* extraction. The least reported cases are hide work and masonry which had one (1) respondent each, followed by ironwork which had 4 respondents. Brick making, catering services, and land renting were not reported at all indicating that they are not commonly practiced in the study areas..

FGDs further revealed that engagement in non- and off-farm activities was on the whole mostly seasonal and done on a part-time basis. The main cropping season *meher* (September to February) was largely dominated by agricultural activities on own farm especially in times of good rains. Off-farm and non-farm engagements were largely practiced during *belg* (March to August) period.

Survey results indicated that households generally relied on family labor for both agricultural and non-agricultural activities. When asked whether they employed labor during the previous 12 months and whether it was temporary or on a

permanent basis, survey results indicated that 90% of them did not. As for those that did, all of them said it was temporary. Key informants revealed that few people hired daily labor mainly during peak agricultural seasons and such seasonal labor demand was often met by hiring among seasonal immigrants from the nearby towns of Meket and Gidan.

FGDs highlighted that petty trading, weaving, local alcohol brewing, iron-work, firewood selling were often single man operations. Family members could help each other in ancillary aspects of some activities such as fanning traditional furnace in iron-works, spinning thread into strands during weaving or loading and unloading donkeys. Thus, the micro-enterprises in the study areas were really of a small nature indicating that there contribution to sustainable livelihoods security were minimal.

Natural resource based activities were another source of off-farm income for some households in the study sites. These included selling wooden farm implements, firewood for fuel consumption, charcoal vending and *gicha* extraction. According to key informants, the poorest households engaged in *gicha* extraction and selling wooden farm implements. Firewood selling was however done by both the "poor" as well as "rich" people with pack animals. Some camel owners in Hara, for instance, were reported supplying firewood for sell in the town of Hara itself. Even though the survey results showed that only eight people earned income from firewood selling, according to local informants and field observations, a considerable number of people in both Hara and Amaya-Mecha engaged in firewood selling, fuelling deforestation.

Both key informants and field observations highlighted the prevalence of craft activities such as iron-work, pottery and weaving. According to key informants, the related skills were imparted into people from a tender age, however, most of these trades remained the occupation of a minority. Despite the age-old importance of blacksmiths in producing, sharpening and repairing farm and kitchen tools, they were referred to in derogatory names for their services, indicating that people looked down upon the trades. In addition, such trades had negatively impacted by improvements in technology.

Pottery was relatively better in terms of income generation than iron-work. According to FGDs, many rural households and urban dwellers utilized traditional pots and pans for baking and cooking. *Mitad* [a large pan for baking the Ethiopian flat cake, *injera*] holds better demand and was sold for better prices than any other clay products. But such activities had not received any form of technological support. The production was still carried out traditionally and the work remained tiring.

With regard to weaving, key informants and FGDs revealed that though the activity was important in the study area, it relied on primitive technology in its operations hence was being challenged by modern textiles. Traditional dresses such as *netala* (shawl) for women and *kuta* (double shawl) for men had a fairly good demand among the rural and, to a limited degree, the urban dwellers. For the rural people these were integral parts of the dressing style on market, ritual and ceremonial occasions. A large number of urban dwellers, especially women, also used them for ritual and ceremonial purposes. Other traditional custom wears for women *kemis* (for the married) and *tiftif* (mostly for the unmarried) havd gradually lost their importance especially during the past twenty or so years.

It was further revealed that nylon and polyester garments of attractive colors were then flooding local periodic markets winning the hearts of both youths and adults especially women. Their lightness, easiness to wash, and dust enduring characteristics gave them a considerable edge over the bulky and easily stainable custom dresses. Thus, rural women of these localities had switched to buying foreign garment clothes which were then sewn by local tailors the way they suit them heralding a gradual demise of an important cultural activity.

Petty trading was another important source of income for the rural households in the study sites. FGDs highlighted that involvement in petty trading grew especially since the severe 1984/85 drought period. The recurrent droughts and economic decline since then forced some people to concede to new trends of combining agriculture and petty trade activities, though this was largely regulated by seasonal opportunities. Key informants revealed that petty trade involved people of different backgrounds: some were farmers pushed into it because of declining agriculture while others were demobilized soldiers especially of the *Derg* regime - the military government that existed in Ethiopia from 1974 – 1991. However, the activity was not well remunerated because of the multitudes of people involved in the activity.

Inter-household or intra-district labor hiring in the study sites was very low. Survey respondents were asked whether any member of the households had been a migrant in the past twelve months. Table 5 summarized the responses. The results showed that the majority (81.08%) did not have a migrant member of the household while the remaining 35 (18.08%) had migrants. About 10% of the surveyed households reported having a migrant member or two working somewhere in the country while 8.64% reported that migrant members were abroad.

Table 5: Migration by type (last 12 months)

Migration type	**Hara**		**Amaya- Mecha**		**Geshober**		**Total**	
	Count	**%**	**Count**	**%**	**Count**	**%**	**Count**	**%**
In-country	0	0	11	15.71	8	11.42	19	10.27
International	14	31.11	2	2.85	0	0	16	8.64
No migrant member	31	68.89	57	81.43	62	88.57	150	81.08
Total	45	100	70	100	70	100	185	100

Survey results further showed that Hara had the largest portion of migrants: and all of them were international. This might have been influenced by the low agricultural production of the area and large family sizes.

Remittances and other income transfers were important non-farm income sources of the study area especially in Hara, where all of its migrants were of international destinations. Key informants revealed that international migrants worked mainly in Saudi Arabia, where they were engaged in menial jobs such as domestic work. They further highlighted that pension payments were mostly for demobilized soldiers especially of the *Derg* regime.

CHALLENGES FACING NON-AND OFF-FARM ACTIVITIES

The survey results indicated that governmental institutions in the study area were implementing public safety net programs to cater for food deficit households. About 53% of the respondents reported benefiting from this program. However, the involvement of other institutions other than government in rural off- and non-farm activities was minimal. According to survey results, of the 35 sample respondents who reported receiving institutional assistance, 21 received it from *Iquibb* (informal association where people contribute some specified amount of money weekly to be later used by members in turns) eight from *Woreda* Office, three from Cooperatives, and another three from NGOs.

Key informants highlighted that staffing of key institutions to spearhead rural non-and off-farm activities was also inadequate. They also stated that the staff lacked professional expertise to identify and render skills training to right target groups. For example, the *Woreda* Small and Micro Enterprise Development Office, which was supposed to facilitate the establishment of off-farm and non-farm activities, was poorly staffed. Most of the office's posts were filled by unqualified personnel.

FGDs further revealed that redundancy of responsibilities, poor horizontal and vertical coordination capacities, inefficient needs assessments, and absence of participatory and transparent working modalities in government institutions had negatively impacted off-and and non- farm activities as vehicle to realize sustainable livelihood security. Support by non-governmental institutions in these activities was obstructed by excessive political interferences which saw direct benefits of any kind to targeted individuals going to those affiliated to the ruling party.

Key informants revealed that some activities were on the verge of extinction due to lack of demand. A typical example cited in this regard was hide-work whose demand had totally declined because some of the farm implements produced from the activity such as the 'whip' had been replaced by synthetic fibers from old sacks. Synthetic sacks that came with food aid donations had substituted *akimada*, another leather product, which traditionally was used as sack. It was further noted that almost every farmer easily made leather yoke-pads for his oxen, and once the yoke-pads were prepared they lasted for more than ten years, hence the demand for traditional products from people of this sector had declined. Leather belts had been substituted by cheaper canvas ones, which many youth were interested in because they found them cheaper. Also sheaths for knives were no longer much in demand. Thus, time had militated against some of these rural activities as little room existed for the expansion of these traditional rural hide works.

Other activities such as weaving and local brewing were facing serious challenges due to price rise of raw materials for production. Weaver informants of Amaya-Mecha were worried about price increase in *Zaha* (a factory processed cotton thread), the main input for their products.

The case of petty trading was a bit different. According to key informant interviews, this activity involved several people ranging from unregistered rural nomadic tradesmen/women who sold a variety of petty goods in their temporary stalls of village periodic markets to unregistered tax-evading and registered taxpaying better-off urban merchants. Survey results showed that competition from urban traders was a major challenge faced by rural petty traders, as cited by 53.33% of the respondents. About 21% of the respondents cited cultural or religious convictions as impeding their involvement in non- and off-farm activities. The focus group discussions highlighted that the cultural/religious attitudes of the Muslims

toward avoiding ‘paying and receiving interests’ discouraged borrowing from and saving in Microfinance Institutions. However discussions with key informants revealed that savings were low because people did not realize much from petty trade

Key informants also revealed that observances of Martyrs' and Saints’ Days had an impact on work habits. Orthodox Christians especially in Geshober and Amaya-Mecha abstained from work for about 10 to 14 days a month. This did not mean that people were less interested in undertaking the main agriculture activities during these observance days, but had to conform to the dictates of the religion.

Regarding linkages with other sectors, and from the point of view of the job opportunities they can offer, FGDs noted that rural off-farm and non-farm activities in their area were single person operations that involved family labor for production, as in the case of pot-making or weaving. Labor costs did not inhabit production factors. On the other hand the activities were not too attractive to those who wanted to leave the agricultural sector. In terms of output, their production was also seasonal and satisfying seasonal demands and of a small nature to make meaningful contribution to sustainable livelihoods.

INCOME AND HOUSEHOLD LIVELIHOOD SECURITY

In this section, incomes from crop farming, animal farming, and from off- and non-farm activities for the previous year were computed and a summary of the results were shown in Table 6.

Table 6: Contribution of major sources of income (in Birr*) to total household income

Attribute	**Hara**		**Amaya-Mecha**		**Geshober**		**Total**	
Source	Amount	%	Amount	%	Amount	%	Amount	%
Crop income	99,045.00	44.12	138,182.50	66.15	174,117.00	63.75	441,344.5	58.22
Livestock income	17,800.00	7.93	21,176.3	10.14	55,362.00	20.27	94,338.3	13.35
Non-farm income	102,390.00	45.61	28,126.00	13.46	20,077.00	7.35	150,593.00	21.32
Off-farm income	5,270.00	2.35	21411.00	10.25	23555.00	8.62	50236.00	7.11
Total income	224,505.00	100.00	208,895.00	100	273,111.00	100	706,511	100.00
**Per capita income	863.48		560.04		793.93		723.14	

* One United States Dollar equivalent to 16 Birr (2011).

**The per capita income was calculated by dividing the total annual income by the total family size for each site and all sites combined together as well.

The survey results showed that agriculture contributes 71.57% of the total income of the survey respondents while non-farm and off-farm activities accounted for 21.32% and 7.11% respectively. Variations in the proportion of the contributions of different activities to total income of specific sites were also noted. For example, the contribution of non- and off-farm activities ranged from 2.35% to 45.6% in the three study sites. The highest contribution of off-farm and non-farm activities to the total household income was recorded in Hara, an aspect probably explained by its relatively high level of international migration. This aspect fails to explain why respondents do not utilize income from these activities to improve agricultural technology! Key informants attributed this situation to the shrinking of agricultural land due to population pressure.

With regard to savings, an attempt was made to assess how much money was saved by each household.

Table 7: Savings situation

Amount saved (in Birr)**	**Hara**		**Amaya-Mecha**		**Geshober**		**Total**	
	Count	%	Count	%	Count	%	Count	%
1000-5000	3	6.67	6	8.57	5	7.14	14	7.57
5000-10000	4	8.89	-		-		4	2.16
10,000-15,000	-		-		1	2.23	1	0.54
15,000 and above	1	2.23	-		-		1	0.54
No savings	37	82.22	64	91.43	64	91.43	165	89.19
Total	45	100	70	100	70	100	185	100

Survey results indicated that only 20 (10.81%) of the respondents had saved some amount money while 165 (89.19%) of them said 'no savings' indicating that the saving culture was still very low in all the study sites. This may also have implied that income derived from agriculture and non- and off-farm activities by the majority of the survey respondents is insufficient to meet their livelihood needs.

The above results pointed to the fact that those off- and on-farm activities, in their present state then, could not achieve sustainable livelihood security because they lack necessary support for their growth. Key informants stressed the need for greater government intervention to enable all actors to participate in the activities. Issues of corruption cited earlier needed to be nipped in the bud.

They further recommended that legislative changes be made regarding financial institutions so as to make it possible for the low income persons to access loans from both the private and public institutions for the development of off- and on-farm activities.

CONCLUSION

Agriculture remained the mainstay of the study area with non-and off-farm activities playing complementary roles. The contribution of non-farm activities to food security compared to off-farm was relatively higher with international migration attributing to most of the difference. However, the two activities remained fall-back strategies done on a small scale and undertaken by people in search of sufficient means irk a living. That these activities could lead to the attainment of sustainable livelihoods security was not established as income derived from both agriculture and these activities was insufficient to meet their livelihood needs judging from their inability to create surplus for saving.

Theoretical issues that associated non-farm and off-farm activities with accumulation or pull factors (Barrett et al., 2001) were not identified in this study. What seemed evident was that non- and off-farm activities of the study area were not positive outcomes of agricultural growth or productivity but of shocks induced by rainfall variability, land degradation and low levels of use of modern agricultural technology hence the decline in agricultural production. Thus, policy changes aimed at stimulating the agricultural sector as well as these activities are needed if sustainable rural household livelihoods are to be attained in the study area.

References

Barrett, C.B., Reardon, T. & Webb, P. (2001). Non-farm income diversification and household livelihood strategies in Africa: Concepts, dynamics, and policy implications, *Food Policy, (26),* 315-331. http://inequality.cornell.edu/publications/working_papers/Barrett-Reardon-Webb_IntroFinal.pdf

Bryceson, D. F. (1997). Deasgrarianisation in Sub-Saharan Africa: Acknowledging the inevitable. In D.F. Bryceson & V. Jamal (Eds), *Farewell to farms: Deagrarianisation and employment in Africa*, pp. 3-20. Research Series No. 1997/10 Leiden: African Studies Centre.

Bryceson, D. F. (1999). African rural labor, income diversification and livelihood approaches: A long-term development perspective. *Review of African Political Economy*, 26, (8), 171-189.

Carswell, G. (2000). *Livelihood diversification in Southern Ethiopia.* IDS Working Paper, No.117. http://www.ntd.co.uk/idsbookshop/details.asp?id=556

Central Statistical Authority (CSA) (1998). The population and housing census of Ethiopia: Result at the country level, statistical report: CSA, Addis Ababa.

Ellis, F. (1998). Survey article: Household strategies and rural livelihood diversification. *The Journal of Development Studies*, 35, (1), 1-38.

Ellis, F. (2000). *Rural livelihoods and diversity in developing countries*. New York: Oxford University Press.

Ellis, F. & Biggs, S. (2001). Evolving themes in rural development 1950s-2005. *Development Policy Review*, 19, (4), 437-448.

Gubalafto *Woreda* Agricultural & Rural Development Office (GWA&RDO) (2009). Unpublished *Woreda* Reports, Ethiopia.

Johnke, H. (1982). *Livestock production systems and livestock development in Tropical Africa.* Kieler, Lwissens Chafts: Verlag.

Mulatu, D. (2001). Off-farm income generation in Ethiopia: Opportunities and constraints in food-insecure *Weredas* of Oromiya and Amhara Regional States', *Ethiopian Development Forum*', 2, (1), 22-45.

Mulatu, D. & Teferi, R. (1996). Off-farm activities: The case of North Shoa. In K. Bereket & M. Tadesse (Eds.), *The Ethiopian economy: Poverty and poverty alleviation.* Proceedings of Fifth Annual Conference on the Ethiopian Economy, 126-132.

Reardon, T. (1997). Using evidence of household income diversification to inform study of rural non-farm labor market in Africa. *World Development*, 25, (5), 735-748. http://www.sciencedirect.com/science/article/B6VC6-3SWXXYC-B/2/82aa5cef96d6cf6a0911236d486d04f5

Save Children UK (2003). Baseline nutrition and food security assessment in Gubalafto Woreda of North Wollo Administrative Zone of Amhara Region, March 13-26, 2003.

Sharp, K., Devereux, S. & Amare, Y. (2003). *Destitution in Ethiopia's Northeastern Highlands, Amhara National Regional State*, IDS, University of Sussex, Bringhton, BNI 9 RE.

Swift, J. & Hamilton, K. (2001). Household food security. In S. Devereux & S. Maxwell (Eds). *Food security in Sub-Saharan Africa*, London: Institute of Development Studies, 67-92.

Tasew, W. (2002). Rural farm/non-farm income linkages in Northern Ethiopia. In D. Benjamin (Ed.), *Promoting farm/non-farm linkages for rural development*, FAO: Department of Economic and Social Department, 121-143. ftp://ftp.fao.org/docrep/fao/005/y4383E/y4383E00

Tegegne, G. (1995). An assessment of Ethiopia's' agricultural land resources. In A. Dejene & D. Mulatu (Eds.). *Proceedings of the fourth annual conference on the Ethiopian Economy*. Addis Ababa: Addis Ababa University Press, pp. 21-24.

Tesfaye, L. (2003). *Livelihood strategies in the context of population pressure: A case study in the Hararghe Highlands, Eastern Ethiopia*. Unpublished doctoral dissertation, University of Pretoria, South Africa.

Wondeye, A. (2005). *Rural non-and off-farm activities and factors affecting households' involvement: A case study from Dessie Zuria Woreda*, Unpublished master's thesis Addis Ababa University.

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