

UNIVERSITY OF ALBERTA

**GLOBALIZATION AND NEO-LIBERALIZATION: CHALLENGES AND
OPPORTUNITIES TO ENSET CROP-BASED AGRICULTURAL
COMMUNITIES AND THEIR FARMING SYSTEM IN ETHIOPIA**



by

Tsedale Waktola Geda

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in

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Dedicated to my daughters Tigist Estifanos and Tizita Estifanos,
my late parents, Waktola Geda and Mulunesh Wolde Sillasse and
to all enset crop farming communities of Ethiopia

Abstract

Neo-liberal globalization has challenges and opportunities for rural agrarian communities. Creating alternate market outlet is one of the opportunities rendered by neo-liberal globalization. Furthermore, those that afford to buy agricultural inputs have benefited from scientific agricultural and technological innovations. The challenges include distributing to all farming communities the benefits from neo-liberal globalization. In chapter 2, the conceptual definitions of globalization, neo-liberalization, governance and other concepts and relevant literature are presented. The influence of those aforementioned factors on the socio-economic changes in the selected traditional farming communities in Ethiopia has been analyzed. In chapter 3, the influence of neo-liberal globalization on gender roles is examined. In chapter 4, linkages between the three phenomena: traditional ecological knowledge (TEK), culture and globalization and their influence on selected traditional rural farming communities is analyzed. The overall objective of this study is to contribute to the understanding of the current threats to food security in Ethiopia. Ethiopia is selected for this study because the country is unique in being able to provide information on the selected topic. Enset crop is elected because it plays a crucial role in the food security currently estimated for more than 15 million farming communities. A case of Gurage is selected, since Gurage ethnic group is one of the major ethnic groups that depend on enset crop as their staple food.

A qualitative method that includes observation, semi-structured interviews, document analysis, and field work has been followed. Some of the key findings reveal that: 1) Consensus among policy makers, researchers and agricultural offices heads and agricultural extension workers on the limited contribution of neo-liberal globalization of

agriculture to enset crop development; 2) Gender role shift has been observed where a woman takes over the traditional men's role in agricultural production; and 3) recent transitions in enset crop production have been observed in response to globalization. In summary, this study reveals that despite the limited benefits by traditional rural farming communities from neo-liberal globalization of agriculture, there still are various opportunities that can be tapped through partnership among government agricultural offices, non-governmental organizations and farming communities that creates local-global linkages.

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Acronyms

ADLI	Agricultural Development-Led Industrialization
AWLAE	Association of African Women Leaders in Agriculture and Environment
EDRI	Ethiopian Development Research Institute
EAWLEA	Ethiopian Association of Women Leaders in Agriculture and Environment
CBD	Convention on Biodiversity Convention
CGIAR	Consultative Group on International Agricultural Research
CIMMYT	(Centro Internacional de Mejoramiento de Maiz Y Trigo (Spanish: International Maize and Wheat Improvement Center, Mexico)
FDRE	Federal Democratic Republic of Ethiopia
HIPC	Heavily Indebted Poor Countries
IFPRI	International Food Policy Research Institute
IMF	International Monetary Fund
nd	no date
NGO	non-governmental organization
PA	Peasant Association
PADETES	Participatory Demonstration and Training Extension System
PASDEP	Plan for Accelerated and Sustained Development to End Poverty
SAP	Structural Adjustment Program
SDPRP	Sustainable Development and Poverty Reduction Program
SEK	Scientific Ecological Knowledge
SG 2000	Sasakawa Global 2000
SNNPRS	Southern Nations, Nationalities and Peoples' Regional State
TEK	Traditional Ecological knowledge
TGE	Transitional Government of Ethiopia
UNCED	UN Conference on environment and Development
WTO	World Trade Organization.

Chapter 1: Introduction

Neo-liberal globalization of agriculture is one of the key issues that attracted the interest of rural sociologists. There are no unified definitions for both globalization and neo-liberalization in the literature. The political economy of globalization defined by Ngaire Woods (2000) and neo-liberalism defined by Shah (2005) are used for this study as lenses to view the socio-economic changes in agrarian communities. The definitions are presented in chapters 2 and 3. Furthermore governance as defined by Stoker (1998, p.17) in which “governance refers to the governing styles in which the boundaries between and within the public and private sectors have become blurred” and food sovereignty defined by The Atitlan Declaration on food sovereignty, United Nations, 2005, p.2) are used to complement the globalization and neo-liberalization frameworks. The Atitlan Declaration on food sovereignty defines food sovereignty as:

Food sovereignty is the right of peoples to define their own policies and strategies for the sustainable production, distribution, and consumption of food, with respect for their own cultures and their own systems of managing natural resources and rural areas, and is considered a precondition for Food Security

The following dissertation explores the challenges and opportunities of neo-liberal globalization of agriculture on agrarian communities through three papers. The first section of the chapter gives an overview of the implications of neo-liberal globalization for rural agricultural communities followed by the influence of neo-liberal globalization of agriculture on gender and traditional ecological knowledge (TEK). I then present the background followed by research questions and study rationale, research methods followed and the chapter ends with dissertation outline.

Implications of Neo-Liberal Globalization for Agrarian Communities in the Developing World

Neo-liberal globalization has both challenges and opportunities for rural agricultural communities. On one hand, some opportunities have been realized that include, opening up alternative markets and the transfer of modern technologies intensifying agriculture through supply of inputs. On the other hand there are challenges including equal distribution of the benefits from neo-liberal globalization.

The intensification of agricultural production in the developing countries is approached through the 'Green Revolution'. 'Green Revolution' was initiated by Rockefeller Foundation in the 1940s in Mexico and in a joint venture with Ford Foundation in the Philippines in the 1960s with an ultimate goal of increasing cereal-grains yields in developing countries particularly in Latin America and Asia. Substantial achievements have been obtained in the 1960s and 1970s (Living History Farm. (n.d)). However, the success stories were not repeated in Sub-Saharan Africa, where many farmers lack access to the inputs required for the intensification of agriculture (Environmental Literacy Council, 2002). Nevertheless, in 1984 another program similar to the 'Green Revolution'- Sasakawa Global 2000 (SG 2000) has been initiated jointly by the Sasakawa Africa Association (SAA), and the Global 2000 program (The Atlantic Monthly 1997). In Ethiopia, SG 2000 was initiated during the devastating famine in Ethiopia in 1984/1985, nevertheless, though the program has been initiated in 1986, activities started in 1993 (Gebre 2001). SG 2000 started its operation in Ethiopia through request made by Transitional Government of Ethiopia (TGE) to the SAA. (Sasakawa-Global 2000; 2002). SG 2000 used the national research data recommendations and a

back up from International Research Organizations such as CIMMYT (Centro Internacional de Mejoramiento de Maiz Y Trigo (Spanish: International Maize and Wheat Improvement Center, Mexico) that makes different from the 'Green revolution' (SG 2000 (n.d, b)).

The Role of Gender and TEK

Neo-liberal globalization manifests itself in unintended ways, affecting important aspects of social structure, including gender and knowledge systems. Men and women are differently influenced by globalization due to their differential gender roles. The recognition of gender roles as an approach is essential for development efforts, including those in the agricultural technology development. Hence, evaluating gender roles in agriculture provides an important means of studying globalization and gender. Furthermore, traditional ecological knowledge (TEK), culture, and globalization, in terms of their linkages or globalization threats to TEK and culture influence food security and biodiversity. The available literature on globalization and TEK, and associated culture, evolve mainly around the relationship between them, such as the recognition of TEK in contributing to conservation of biodiversity and ecological processes or the threats of globalization to TEK and culture, with respect to food security and biodiversity management. Nevertheless, little information can be found in the literature concerning the available potential of TEK and culture in rural farming communities.

Background

Ethiopia is in the process of improving its position in international economic integration (Federal Democratic Republic of Ethiopia, 2001). According to Gebre Egziabher, et al. (1990), the non-colonial history of Ethiopia has contributed to its limited global integration. Moreover, Immanuel Wallerstein (1985) states that African countries that were in the first phase of global integration were colonized territories. At the end of the 19th century, with the exception of Ethiopia and Liberia, all African countries were fully colonized and this direct political control allowed the colonizers to use their colonies as sources of primary agricultural production (p.44-45). Therefore, Ethiopia's historical background as a non-colonized country contributed to its lack of integration into the global economy in the 1900s, when most African countries began the process. Ethiopia adopted a market-oriented economy since 1991, which played a crucial role towards the country's globalization. Within four decades, the Ethiopian economy changed from a liberalized economy (until 1974) to a state-controlled economy (1974-1989/90) and again to a liberalized economy (after 1991) (Federal Democratic Republic of Ethiopia, 2002b). As indicated by Nichola (2006), from 1961-1974 the agricultural sector was predominately feudal, However, in the second half of the 1960s, policies were encouraging mechanized farming by private entrepreneurs on government unused land. Green revolution was introduced in this era. From 1974-1990, the military government adopted a socialist government controlled economy and since 1991 the current government privatized nationalized and loss making firms and encouraged private sector investment in banks, manufacturing firms, commercial farms and other activities. Furthermore, trade was liberalized and private sector import and export were permitted.

Trade liberalization and other related measures were initiated by World Bank and IMF as part of poverty reduction strategy. The World Bank and IMF requested the least developed countries particularly the heavily indebted countries to formulate strategies for reducing poverty in line with the Millennium Development Goals and in return, the countries would receive debt relief under the enhanced Heavily Indebted Poor Countries (HIPC) (Amdissa, 2006). As in many other African countries, the adoption of the Structural Adjustment Program (SAP) has been part of the economic reform in Ethiopia since 1991, and used to integrate the country's economy with the global economy.

As much as 85 percent of the Ethiopian population lives in rural areas and depends on rain-fed agriculture. Ethiopian agriculture is semi-subsistence farming, where farmers produce for their own consumption as well as for market sale. The agriculture has low productivity, whereby farmers generating more than 95 percent of the country's agricultural outputs are still using traditional farming tools and practices. Modern agricultural inputs for enhancing productivity are even below the sub-Saharan African average. According to MEDAC (1999, quoted in Kassa & Degnet, 2004) an Ethiopian farmer uses an average of 7 kg of nutrients per hectare of arable land, compared to 9 kg (sub-Saharan African average) and 65 kg (world average). The ever increasing population, estimated at about 72.4 million in 2004, with an annual growth rate of 2.75 percent and a total fertility rate of 5.9 births per woman (Ministry of Finance and Economic Development, 2006), has contributed to a decreasing farm size that has forced people to cultivate on steep slopes and marginal lands. The net effect has been a decline in the productivity of the agricultural sector, in addition to a low adoption of the modern agricultural inputs, indicated earlier. Nevertheless, the country still has a reasonable

natural resource potential for agricultural development. Ethiopia has diverse physical features that cause a great variety of climatic, latitudinal, and ecological variation. As outlined by Federal Democratic Republic of Ethiopia (1998, p.11-12), the altitude ranges from 110 m below sea level to 4,620 m above sea level. The climate in the highlands (area more than 1800 m above sea level) is mild and the annual precipitation ranges from 800 to 2200 mm. The lowlands are hot with annual rainfall varying from less than 200 to 800 mm; of the total area, 60 percent is reported to be suitable for agricultural purposes. The large diversity of ecological conditions, determined by topography, from 110 m below sea level (the Kobar sink in the Afar depression) to the peak of 4620 m above sea level at Ras Dejen, creates diverse and conducive environments for developing a wide variety of fauna and flora. The flora of Ethiopia is heterogeneous and estimated to be comprised of between 6,500 to 7,000 species of higher plants, of which 12 percent are endemic. Ethiopia is an important center for crop genetic diversity and, for this reason, serves as one of the 12 Vavilov centers (Federal Democratic Republic of Ethiopia, 2005). The twelve centers include: (1) Mexico-Guatemala, (2) Peru-Ecuador-Bolivia, (2A) Southern Chile, (2B) Southern Brazil, (3) Mediterranean, (4) Middle East, (5) Ethiopia, (6) Central Asia, (7) Indo-Burma, (7A) Siam-Malaya-Java, and (8) China. Fig. 1-1 below shows the condensed Vavilov's eight centers of crops origin.

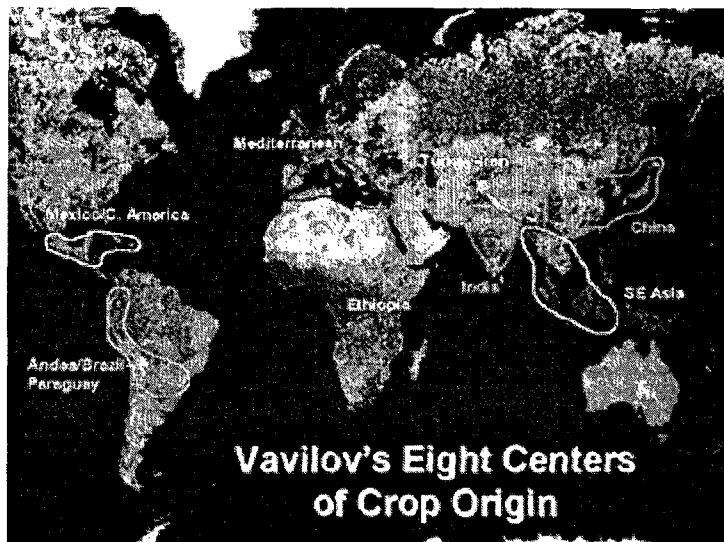


Fig.1-1. Vavilov's Center of Biodiversity. Adapted from AgHrt (n.d)

The wide range in climate, topography, parent material, and land use in Ethiopia gives rise to extremely variable soils in different parts of the country. Furthermore, Ethiopia has a large water resource potential, which includes 11 major lakes with a total area of 7,400 km², 12 river basins with a total annual run-off of about 10 billion m³, and ground water with an estimated capacity of 2.56 billion m³.

Promoting the agricultural sector is at the center of the government's development policy and strategy. Specifically, under the national development strategy, known as the Agricultural Development-Led Industrialization (ADLI) strategy, which is a major policy framework for development pursued since 1991 (Federal Democratic Republic of Ethiopia, 2001; 2002a; 2002b; 2006), agriculture is seen as the driving force to produce surpluses that will fuel the expansion of industry and growth of the modern sector (Federal Democratic Republic of Ethiopia, 2001). The policy direction toward market based and export orientation is a shift from the previous agricultural policy of the Derg (Military government). The details of the policy are presented in chapter 2.

Enset crop is a traditional, staple crop with a long history in Ethiopia. The plant closely resembling the banana plant, and is sometimes called the “false banana” (Westphal, 1975 (Fig. 1-2). The main sources of food are the corms, pseudostems, and leaf stems (Brandt, 1996).

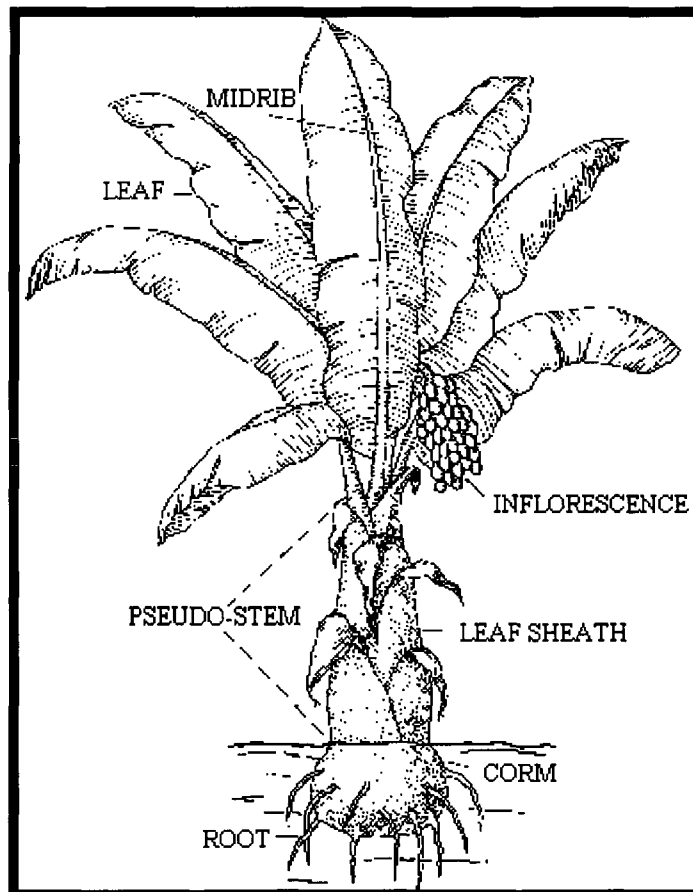


Fig.1-2. Parts of enset plant. Adapted from Brandt, et Al, 1997

The Gurage ethnic group is one of the major ethnic groups who depend on enset crop as a staple food. The other major ethnic groups who depend on enset as their staple food include Sidama, Hadiya and Wolaita. Nevertheless, despite the major part of enset

growing region is dominated by SNNPRS, a significant part is covered by other regions including Oromiya and Gambella as shown in Table 1-1 below.

Table 1-1. Major enset-growing zones, area under enset, 'kocho' and 'bulla' production and average yield per plant.

Region	Area (^{'000} ha)	Production		Average yield	
		'kocho' production (^{'000} kg)	'Bulla' production (^{'000} kg)	'Kocho' (kg plant ⁻¹)	'Bulla' (kg plant ⁻¹)
Oromia					
West Wolega	0.32	2,436	3	17.38	0.02
Illubabor	0.63	5,303	165	20.07	0.62
Jimma	8.17	168,528	8,254	32.55	1.59
West Shewa	6.37	53,538	347	33.57	0.22
East Shewa	0.61	27,073	1,267	37.30	1.75
Arssi	2.35	61,271	2,960	17.44	0.84
Bale	5.79	162,431	8,705	22.38	1.20
Borena	30.04	632,300	6,074	43.36	0.42
Total	54.28	1,112,880	27,775	33.46	0.84
S.N.N.P.R.S					
Gurage	20.19	73,655	3,612	20.03	0.98
Hadiya	13.18	182,107	9,207	28.75	1.45
Kembata	6.11	69,802	2,325	30.86	1.03
Sidama	37.10	1,221,229	49,205	33.34	1.34
Gedeo	7.34	122,311	298	28.47	0.07
North Omo	18.29	202,425	9,130	20.33	0.92
South Omo	1.34	18,673	-	27.28	-
Shekicho Keficho	6.36	222,848	8,462	22.99	0.87
Bench Maji	0.90	17,547	32	23.74	0.04
Yem	1.06	9,732	275	27.07	0.77
Amaro	1.29	23,314	2,135	32.18	2.97
Burji	0.26	1,927	120	16.30	1.02
Derasha	0.10	1,575	80	25.72	1.31
Total	113.52	2,167,144	84,881	28.69	1.12
Gambella	0.10	1,769	24	31.45	0.43
National Total	167.90	3,281,793	112,680	30.15	1.04

Adapted from Tsegaye, 2002.

Enset plant is vegetatively propagated from the corm of immature plants. The cultivation is described in further detail in Chapter 3. Different enset landraces, crop cultivars developed by farmers express a variety of qualities including those for food and medicine. Enset crop can be grown in the highland, midlands, and lowlands, though the yield and quality of production tends to vary. Currently, enset crop production faces serious disease problems, especially with regards to bacteria wilt. Other than sanitary measure and some effort are done screening landraces for disease resistance, to date control measures have not found. Nevertheless, enset plant is relatively resistant to drought and frost.

Enset crop is important for its food security contribution. It is a major staple food for the community, particularly in the highland. Nevertheless, enset crop is grown predominately for home consumption as food; only a small portion of the product is sold. This is true for other crops grown in association with enset production as presented in Table 1-2 below. Furthermore, in Gurage zone, enset is the major food crop consumed in both the dry and wet seasons whereas in other zones it is mainly used for the wet season. This substantiates the idea that enset is indispensable for the farming communities who depend on enset as staple food particularly for communities in the highland.

Table 1-2 Type of food items consumed in enset growing areas by season and region/zone/special woreda, 1996/97

Region/zone/ Special woreda	Percentage Distribution in					
	Bega ^a Season			Kiremt ^b Season		
	Type of Food Item					
	Enset	Other Crops	Animal Product	Enset	Other Crops	Animal Product
Oromiya	33	54	13	50	36	14
West Wellega	7	79	14	18	68	14
Ilubabor	15	73	12	26	63	11
Jimma	24	63	13	62	26	12
West Shewa	45	47	8	60	32	8
East Shewa	27	62	11	63	25	12
Arsi	39	47	14	56	26	18
Bale	49	36	15	59	19	22
Borena	55	30	15	63	2	12
S.N.N.P.R	48	39	13	61	26	13
Gurage	66	22	12	66	22	12
Hadiya	52	38	10	66	23	11
Kembata	42	45	13	60	27	13
Sidama	47	39	14	62	24	14
Gedeo	51	29	20	63	23	14
North Omo	39	48	13	60	28	12
South Omo	37	49	14	63	25	12
Shekicho-Keficho	50	38	12	60	28	12
Bench-Maji	40	49	11	54	30	16
Yem	57	38	5	76	19	5
Amaro	48	40	12	57	30	13
Burji	58	30	12	67	23	10
Derashe	39	54	7	48	45	7
Gambella	39	53	8	55	37	8
National	42	46	12	57	31	12

Adapted from CSA, 1997b; a= dry season, b=wet season

Research Questions and Study Rationale

Little information is available about the value in focusing on traditional agricultural crops for understanding the impact of neo-liberal globalization, or on the potential economic, cultural, and ecological implications when farmers move away from traditional crops and replace them with cash crops. The objective of this study is to understand these broader issues through a specific case. The case study is important because it reveals the importance of local staple crops to rural community food security, their ecological appropriateness to their location, the extensive local knowledge, and the cultural role. Consequently, the following questions are used to guide this research:

- a) How do local enset crops contribute to the socio-economic and cultural vitality of rural farming communities?
- b) How has neo-liberal globalization affected traditional enset-based farming in Ethiopia?
- c) How is this impact manifested specifically in gendered, agricultural labor relations in enset crop-based rural communities?
- d) How have traditional farming culture and knowledge systems been affected, and mediated, the impact of neo-liberal globalization on enset-based rural farming communities?

Description of the Study Sites

The study was carried out in the Southern Nations, Nationalities and Peoples' Regional State (SNNPRS), one of the federal states of Ethiopia located in the south and southwestern parts of the country. Three agro-ecological zones, including: highland, midland, and lowland; and eight Peasant Associations (PA) were included in the study. The logic of including the different agro-ecological zones was to get an in-depth understanding of the general productivity of enset harvesting in the three agro-ecological zones. Variation including economic and infrastructure have been observed among the three agro-ecological zones. The midland has relatively better economic activities than the highland and the lowland. Weekly and daily basis markets are available in the midland including the farming communities from the highland and the lowlands come to these markets for both buying and selling. Nevertheless, local markets are available in both the highland and the lowland. The midland has relatively better infrastructure including water supply, road & transportation, telecommunication and electricity, than the highland and the low land.

In the highland, four PAs (Amaute Gftge, Amaute Morege, Gereno Betet Wonz, and Fule Amanuel), in the midland, two PAs (Kessay and Guchi Motebe) and in the lowland, two PAs (Soloke Gebriel and Gogeti 01) were included.

For the most part, two different types of households were studied: male-headed and married, and female-headed households. The dominant category was male-headed and married since female-headed household were not many that fulfill criteria for

selection as participant. The average number of household members was 8 and the average land holding area was 0.5-1 ha. The main source of food was enset in the highland; maize and wheat for the midland and lowland communities. Livestock was the main source of income, which is followed by annual crops for the highland and annual crops for the midland and lowland. Maps of the Ethiopia and SNNPRS are presented in fig. 1- 3 and 1-4 below.

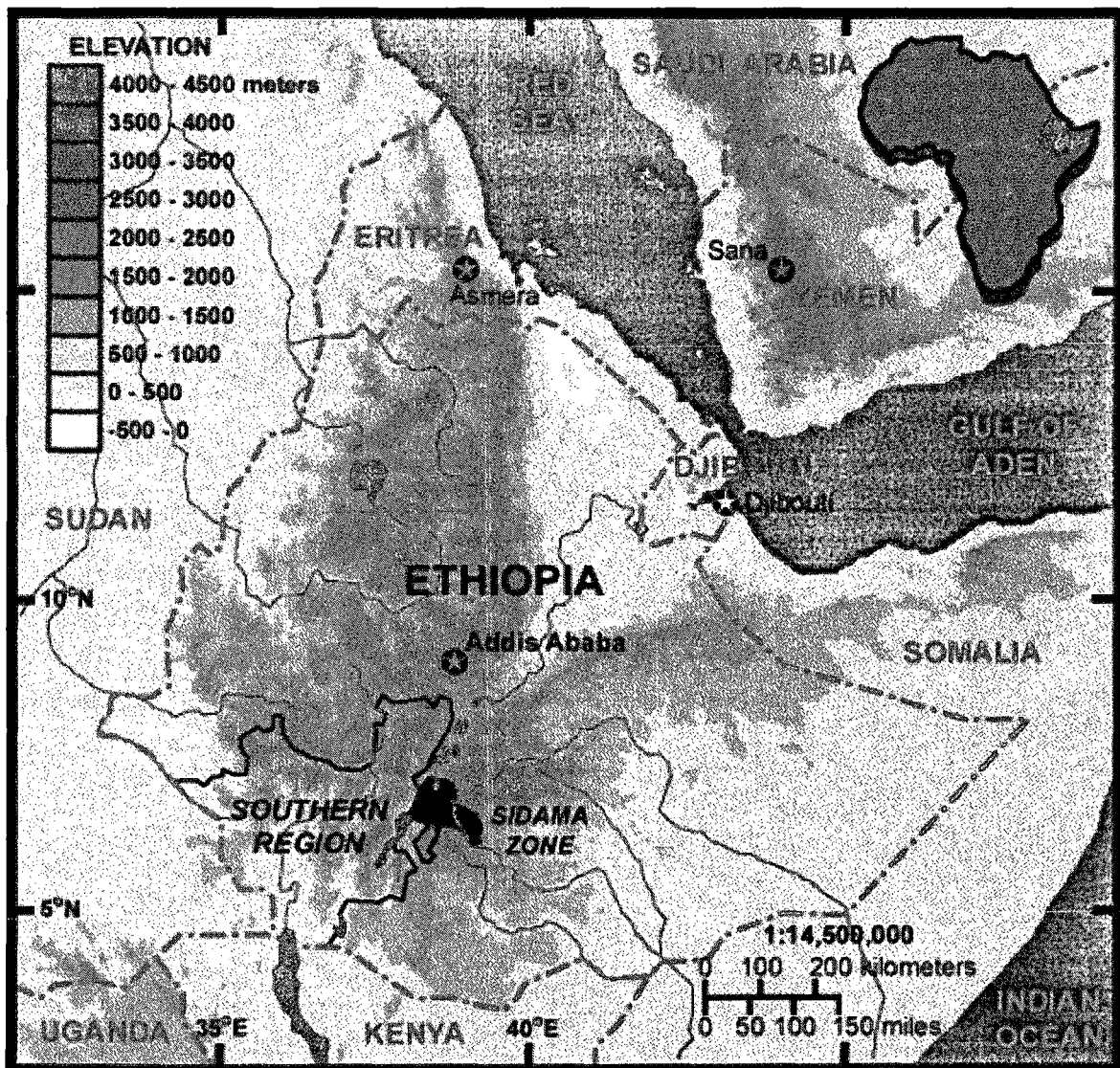


Fig. 1-3 Map of Ethiopia Adapted from Dougherty,(n.d)

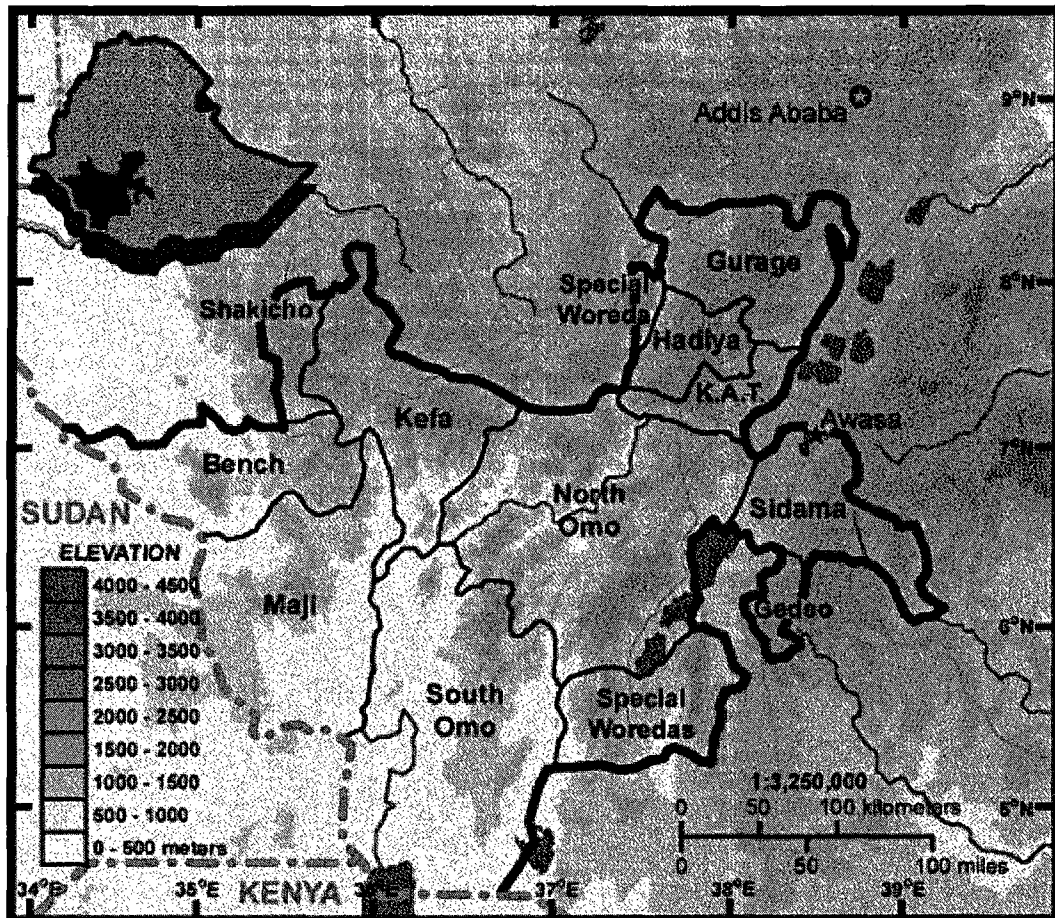


Fig. 1-4 Map of Southern Region Adapted from Dougherty,(n.d)

Research Methods

This study includes observation and semi-structured interviews, document analysis, and field work. A reconnaissance visit was made to the study area to inform the people of the proposed study and also to acquaint the researcher with the village and the communities.

A total of 65 people were interviewed. From these participants farmers, 28; policy makers, 8; agricultural offices, agricultural research offices, biodiversity institutions and higher education heads, 12; researchers, 4; non-government institutions heads, 3;

agricultural extension workers, 6; agricultural development expert, 1; consultants, 2 and; reporter, 1. From the local and woreda (district) participants: highland, 26; midland, 12 and lowland, 2; from the total participants interviewed, 55 were men and 10 women. The field research was conducted for nine months from February 2005 to October 2006. All the interviews were conducted by me.

At the Peasant Association (PA) level, participants were included in the study on the basis of inclusion criteria: 1) farmers who currently or historically produced enset; 2) farmers who participate in agricultural extension programs, those who do not participate in the extension program; 3) gender, and the breadth of land-holding size in the PAs, from small to large holdings. The PA and the potential research participants were selected from lists of households prepared by agricultural development agents and PA leaders in the respective PAs, based on the above inclusion criteria. Further selection of participants was done by the researcher in the absence of the agricultural development agents. Kebele Peasant Association is the lowest administrative unit in Ethiopia. It is administered by a cabinet. In kebele cabinet there are seven members that include representatives in agriculture and rural development, education, health, information and communication, public organization, justice administration and the main administrator position. From these members it is only the health subdivision represented by a woman.

Since the researcher is familiar with many of the participants to be included at federal, regional, zonal and woreda levels, potential participants were contacted directly by telephone. Purposive case samplings was employed to select respondents. Interviewees, both men and women, were selected based on their reputation for being knowledgeable in enset-based agriculture and communities. An interview guide was used

to avoid losing focus and to ensure that all relevant questions were asked. Questions were both closed and open-ended.

Some of the interview questions I asked included:

- (1) What are the socio-cultural values that are important in the lives of people that have linkages with the farming system?
- (2) How is the division of labor in your enset and annual crop farming? Please also tell me the situation of resource ownership and decision making power in your family?
- (3) What influence has male migration had on division of labor and on enset farming system as a whole?
- (4) How do you visualize the current and future sustainability of enset-based agriculture?
- (5) Why do you think enset has not been a focus for research and development and what has to be done to improve the situation?

The interviews took place at the homes of participants, at the household level, and at the offices of the remaining participants. The interviews took 1-2 hours and were semi-structured and open-ended. I changed the questions over time as subsequent interviews were held.

As part of the field observations, the enset-based farming system, with harvesting, processing, storage, and division of labor between men and women, youth, and the elderly was studied. Various documents were reviewed for document analysis, including primarily government documents. I transcribed and translated the data that was collected from interviews, field observations, and documents in preparation for the analysis. I

entered the data into qualitative analysis software, NVivo 7. From the nodes, categories such as gender roles and empowerment were established and I used previous themes from the literature to guide the thematic analysis.

Dissertation Outline

This thesis is organized into a three-paper format. In addition, an introductory chapter provides a general outline and introduction to the broad area of study and a concluding chapter summarizes the contributions made by each chapter. The three papers of the dissertation use the same data-set and the same guiding research questions. The papers are:

1. Neo-liberal Globalization of Agriculture Influence on socio-Economic Changes in Communities that Depend on Enset Crop-based Agriculture in Ethiopia.
2. Gender Roles in Traditional Rural Farming Communities Influenced by Neo-liberal Globalization of Agriculture: A case of Enset Crop –based Agricultural Communities in Ethiopia.
3. Linkages between Traditional Ecological Knowledge (TEK), Culture and Globalization and their Influence on Enset-based Sustainable Agricultural Communities in Ethiopia.

In the first paper, I assess how neo-liberal globalization of agriculture influences socio-economic changes in enset crop -based agricultural communities. In the second paper, I analyze the influence of patriarchy and neo-liberal agricultural globalization on Ethiopian women in the rural agricultural communities. In the third paper, I look at the

linkages between globalization, TEK and culture in the area of food security and biodiversity management. Overall, in this paper, I examine the inevitable influence of globalization, the pace and level of its influence, and the kinds of actions that are taken in response to it.

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Chapter 2: Neo-liberal Globalization of Agriculture Influence on Socio-Economic Changes in Communities that Depend on Enset Crop-Based Agriculture in Ethiopia

Introduction

Neo-liberal globalization has challenges and opportunities for rural agricultural communities. The opportunities include for instant, creating an alternative market outlet like the case of kava ‘alternative’ medicine in Fiji (Murray, 2000). Kava ‘alternative’ medicine has been marketed as a substitute for such synthetic relaxants as valium (Murray, 2000, p.356). As has been stated by Murray:

The trend towards the consumption of ‘alternative’, ‘traditional’, and ‘organic’ remedies in the industrialized West is well established, and kava represents the latest in a long line of items imported from the periphery. In this way, globalization often exploits difference in order to construct and profit from the ‘exotic’. (2000, p.356)

Furthermore, because of globalization, those rural agricultural communities who afford to buy the technologies have benefited from scientific agricultural and technological innovations. Some of the challenges include equal distribution of the benefits from neo-liberal globalization.

The globalization of socioeconomic issues, despite being widely debated, has received little public attention in Ethiopia. This may be partly due to the country’s limited involvement in the current global economy that is associated with free market economy,

as well as the lack of any assessment of the current socioeconomic dimensions in terms of international economic relation. The trend seems to be gradually changing; however, and the media and civil societies have recently begun to include issues of globalization in discussions about foreign trade.

In this paper, I highlight the influence of neo-liberal globalization of agriculture on the socio-economic changes in traditional communities drawing on a case study of the Gurage enset crop-based agricultural communities. In addition to pressures exerted on farmers to adopt cash-based crops, one of the most predominant themes that emerged from this study was the tendency for current agricultural development policies to hinder much-needed research and development on enset, a food staple for many farming communities. In the first section, I outline the research method followed. Working definitions of globalization, neo-liberalization, governance and food sovereignty are presented in the second section. In the third section, I present literature review on agricultural globalization and neo-liberalization. In the fourth section, the key elements of agricultural development policy in Ethiopia are outlined. Then, the influences of globalization and neo-liberalization on the socio-economic changes in communities that depend on enset crop-based agriculture in Ethiopia are analyzed. In the final part of this paper, conclusions and recommendations are presented.

Research Methods

This study includes observation and semi-structured interviews, document analysis, and general field work. A reconnaissance visit was made to the study area to

inform the people of the proposed study and also to acquaint the researcher with the village and the communities.

A total of 65 people were interviewed. The interviewees including men and women were selected based on their reputation for being knowledgeable in the socio-economy of the communities. Interview guide were used to avoid losing focus and to ensure that all relevant questions were asked. Questions were both closed and open-ended. All of the collected data was transcribed and entered into qualitative analysis using the NVivo software program for thematic coding and analysis.

Conceptualizing Globalization, Neo-liberalism and Food sovereignty

Globalization

As a grand theory, globalization has been contextualized by various scholars along different angles, which makes it difficult to attain a unified definition. Ngaire Woods (2000) defines globalization in terms of political economy. As outlined by Woods, globalization comprises three inter-connected elements but not constituting competing theories: the expansion of markets; challenges to the state and institutions; and the rise of new social and political movements. In the first element, it is the transformation of global economic activity through technological change and government deregulation that facilitate the establishment of transnational networks in production, trade and finance. In the second element, globalization is conceptualized as political in which at the extreme a new 'global politics' is emerging where 'borderless world economy' characterized by a global political order where states' political boundaries become much less important. The

second element emphasizes that 'global issues' such as human rights and environmental degradation have emerged which require coordinated policy-making above nation-state levels. The third element comprises the influence of globalization in altering the lives of people across the globe affecting their culture and values producing a 'global culture' but simultaneously the existence of counter reactions to retain the local culture and values. A 'global civil society' supported by modern technology emerges as an outcome of the process.

Furthermore, to assist policy-makers and other non-academics, the general definition of globalization by Dimitrova (2002) is adopted for this study. "Globalization is a multicausal and multidimensional process (or set of processes) that causes compression of time and space horizons, where all boundaries become permeable. It also structures a world of instantaneity, interconnectedness, interdependence, and interchangeability, as well as our consciousness with the world is becoming a single place or a global arena on which we all play" (p.102). Nevertheless, the political economy globalization framework is more useful for this study.

Neo-Liberalism

Neo-liberalism has played a great role in changing the direction of national agricultural policy that was once based on welfare (Tilezey, 2006). Neo-liberalism is a currently used catchword that received significant attention from scholars in the social sciences, though the concept is applied based on the context. According to Shah (2005):

Neo-liberalism, in theory, is essentially about making trade between nations easier. It is about freer movement of goods, resources and enterprises in a bid to always find cheaper resources, to maximize profits and efficiency.

Wolf (2004, p.321) describes liberals as belonging to two groups, including: those who emphasize freedoms from the state and those who rely on a benevolent state to provide welfare and other interventions in the interest, in particular, of the disadvantaged. The former tends to emphasize economic freedoms. The latter tends to emphasize social freedoms.

Wolf suggests that 'social democrats' is the preferred term over 'social liberals'. As Ong (2007) notes; however, neo-liberalism should not be taken as a standard vehicle for development, but be viewed as "migratory technology of governing". Hence, neo-liberalism should not be conceptualized as a single project, but rather as multiple projects (Larner & Le Heron, 2002, quoted in Tilzey, 2006, p.2) resulting in different forms depending on the particular state-society situation (van der Pijl, 1998, quoted in Tilzey, 2006, p.2). Furthermore, form of neo-liberalism depends on the existing state, class interests, compromises, and other relevant factors associated with the interactions (p.2). Some states, according to Tilzey, while fulfilling the requirements for liberalism, "sustain some level of agricultural and socio-environmental 'exceptionalism' in policy, often manifested in new modes of agri-environmental governance." (2006, p.1) A new mode of Agri-environmental governance is an emerging concept that is being discussed currently by some scholars (Dibden and Cocklin 2005; Lockie 2006; Tilzey 2006,). It is associated with the trend in global change that creates a shift in power from state to state- non-state

actors. Globalization is believed to be behind this change of role in governing (Higgins and Lawrence 2005).

Governance

Governance according to Jessep (1998) has become a “buzzword” where its usage is diverse and requires further theorizing. However, currently governance has been understood and accepted by emerging academic writers the idea stated by Stoker in which “governance refers to the governing styles in which the boundaries between and within the public and private sectors have become blurred” (1998: 17). The propositions drawn by Stoker give a highlight for a number of aspects of governance. He argues that the propositions are not contradictory or competitive but complementary (Stoker 1998:18). These propositions are:

1. Governance refers to a set of institutions and actors that are drawn from but also beyond government.
2. Governance identifies the blurring of boundaries and responsibilities for tackling social and economic issues.
3. Governance identifies the power dependence involved in the relationships between institutions involved in collective action.
4. Governance is about autonomous self-governing networks of actors.
5. Governance recognizes the capacity to get things done which does not rest on the power of government to command or use its authority. It sees government as able to use new tools and techniques to steer and guide.

Food sovereignty

An agreed definition is not available for food sovereignty. However, the definition given by Atitlan Declaration better explains the situations in this study. The Atitlan Declaration on food sovereignty states:

Food sovereignty is the right of peoples to define their own policies and strategies for the sustainable production, distribution, and consumption of food, with respect for their own cultures and their own systems of managing natural resources and rural areas, and is considered a precondition for Food Security (United Nations, 2005:2)

Experiences have shown that those that are food insecure are those smallholders and landless farming communities, indicating the right to produce and the right to food are mutually linked (Windfuhr and Jonsen, 2005) and hence, according to “Food Sovereignty: A Future without Hunger (1996) declaration “Food sovereignty is a precondition to genuine food security’ and the right to food can therefore be seen as the tool to achieve it” (p.2). Food Sovereignty is all about the need to give special support to farming communities to overcome food insecurity in the basis of sustainable environment; despite the current system is productive in terms of global output, there are problems in terms of benefits distribution to the poor as well as has long term threat to the environment(p.5).

Background: Agricultural globalization and neo-liberalization in Ethiopia

Typically, globalization is a highly contested concept, though it can still be used as an analytical tool for studying current changes in different directions around the globe (Coleman et al., 2004). Globalization in agriculture is intensifying, in terms of the supply of inputs to agricultural production, processing, distribution, marketing, and sales. The intensification of changes from subsistence to commercial agriculture, by supplying inputs to the agricultural production system, is to achieve specialized and standardized products that are preferred by the market (p.7). Marketing is developing in Ethiopia as a result of changes of state policy with the move to open market conditions. The previous government (the military government) adopted a socialist government controlled economy where the right to import and export were under government control (Nichola, 2006). Furthermore, the military government set up Agricultural Marketing Corporation (AMC) as a grain procurement and price control agency. The present government reversed many of the military government policy on marketing where trade was liberalized and private sector import and export were permitted (p. 317). Furthermore, cooperatives, “farmers’ economic associations” are in the process of reestablishment with a role to play in improving rural marketing system (Federal Democratic Republic of Ethiopia, 2001). Some of the activities of the cooperatives include, collect farmers’ product and provide warehouse service and sell them, buy and distribute agricultural inputs and agricultural tools to farmers, borrow money from banks and lend it to the farmers (p. 92-93).

The intensification of agricultural production in the developing countries is approached through the 'Green Revolution,' which initially had the goal of increasing cereal-grain yields in the developing countries, particularly in Latin America and Asia. The Green Revolution has been highly praised by its supporters as having created substantial achievements in certain parts of the world in the 1960s and 1970s (Easterbrook, 2002). The high yielding varieties of crops, developed for Latin America and Asia, under conditions of irrigation and applications of fertilizers and pesticides, have been unsuccessful; however, in Sub-Saharan Africa, where many farmers lack access to fertilizers and pesticides, and where few of the dry land regions have developed irrigation systems (Environmental Literacy Council, 2002). Nevertheless, in 1984 another program similar to the 'Green Revolution'- Sasakawa Global 2000 (SG 2000) has been initiated jointly by the Sasakawa Africa Association (SSA), and the Global 2000 program (The Atlantic Monthly 1997). SG 2000 has been implemented since 1986 in East Africa (Ethiopia, Uganda, Eritrea, and Tanzania), Southern Africa (Malawi, Mozambique, and Zambia), and West Africa (Nigeria, Benin, Ghana, Guinea, and Mali) (Sasakawa-Global 2000; 2002a, p.1). The program was for technology-based, supply-driven intensification to occur through supply and promotion of improved seeds, fertilizers, pesticides, and farm practices, with provision for credit for input purchases. SG was different from the 'Green Revolution' for its use of the national research data recommendations and a back up from International Research Organizations such as CIMMYT (Centro Internacional de Mejoramiento de Maiz Y Trigo (Spanish: International Maize and Wheat Improvement Center, Mexico). As has been present by Asenso-Okyere et al., (2008, p.7),

Extension—also known as agricultural advisory services—was originally conceived as a service to “extend” research-based knowledge to the rural sector to improve farmers’ lives. It thus includes components of technology transfer, broader rural development goals, management skills, and nonformal education. The traditional view of extension in Sub-Saharan Africa was very much focused on increasing production, improving yields, training farmers, and transferring technology.

Most of the available literature on the influence of neo-liberal globalization of agriculture on traditional farming communities focuses on technological issues. Limited information is available on the socio-economic changes in traditional farming communities resulting from neo-liberal globalization of agriculture. The objective of this study is to contribute to the understanding of the socio-economic changes resulting from neo-liberal globalization of agriculture influences.

Background

Ethiopia has an agrarian society and agriculture is the major component of the country’s economy, accounting for more than 50 percent of the GDP, 85 percent of the labor force, and 90 percent of the foreign exchange earnings. It also comprises the bulk of the labor force for raw material inputs to the industry sector. The population of Ethiopia was 72.4 million in 2004 with an annual growth rate of 2.75% and a total fertility rate of 5.9 births per woman (MoFED, 2006), with higher rates in rural areas (6.4) compared to urban areas (3.3) (Federal Democratic Republic of Ethiopia, 2006). More than 10 related ethnic groups inhabit the main enset-growing regions, with diverse cultures, traditions,

and agricultural systems (Tsegaye, 2002), and the Gurage-Ethio-Semitic-speaking people are one of the major ethnic groups who depend on enset as a staple food. They inhabit an area called Gurageland, which is the semi-mountainous region between Lake Zeway, and the Omo and Awash Rivers (McCabe, 1996; Shack, 1963). The Gurage identify themselves as “people of enset” (Shack, 1966). The other major ethnic groups that depend on enset as staple food include Sidama, Hadiya and Wolita.

Enset is a large, tree-like plant that closely resembles the banana plant, and is sometimes called the “false banana” (Westphal, 1975). Unlike banana, the seedy leathery fruits of enset are inedible and hence the main sources of food are the corms, pseudostems, and the leaf stems (Brandt, 1996). Enset is a typical multipurpose crop with every part being thoroughly utilized, not only for food, but for a number of cultural applications as well (Shigeta, 1996). It acts as a cultural symbol for the people of enset regions as it is a unifying crop for the region. Its fiber has an excellent structure, and its strength is equivalent to the fiber of abaca, a world-class fiber crop (Brandt, 1996).

Enset can be harvested and consumed before it is fully mature, which enables the cultivators to adjust to environmental hazards and food shortages (Rahmato, 1996). Because of this quality of the plant, the enset regions have not experienced crises of food shortage or associated famines, as experienced in other regions of the country (Pankhurst, 1968; Smeds, 1955; Rahmato, 1996). According to farmers, “enset is the enemy of hunger, and human and livestock life is impossible without it.” (Tsegaye, 2002) Livestock play an important role in the enset-based farming system. Livestock are not only used as traction power, and sources of food and cash, but they play a critical role in maintaining soil fertility. The enset system, which requires considerable manure, can only

operate by incorporating livestock in the system at each stage of the growing cycle (Lange, 1982, cited in Pankhurst, 1996). Because of this practice, Smeds (1955) classified these soils as man-made soils. Enset rapidly exhausts the soil unless it is periodically fertilized with animal dung (Kasfir, 1974; Samoff, 1980, cited in Hamer, 1987). Hence, enset has ecologically important functions in producing organic matter, creating a nutrient reservoir in the soil, controlling erosion, and contributing to the stability and continuation of the farming system (Tesfaye, 1996, cited in Tsegaye, 2002; Woldetensaye, 1997). In the highlands, enset is the primary crop because of the scarcity of farmland caused by overpopulation, soil degradation caused by overuse, and land and soil erosion, due to the rolling hills and deep gorges. Enset could be produced with relatively higher yields in the small land area, when compared to the yield of grain crops. Still, the other crops are produced in limited amounts, as supplements for the food value obtained from enset.

The Agricultural Development Policy of Ethiopia

Since 1991, with the passage of Agricultural Development-Led Industrialization (ADLI), a major policy framework for development (Federal Democratic Republic of Ethiopia, 2001; 2002a; 2002b; 2006), Ethiopia has embraced a neo-liberal approach to development, particularly in agriculture. In particular, over the course of the previous decade, many services have been privatized, the currency has been devalued, agricultural subsidies have been removed [and more]. As will be discussed further below, this strategic shift has become a source of potential conflict with ongoing concerns for food security. Since Ethiopia is predominantly an agrarian society, the strategy is focused on

development of the rural sector and agriculture as a leading sector for economic growth (Federal Democratic Republic of Ethiopia, 2002a). A market-led agricultural development plan, particularly in the international market, is envisaged as a target for the continuous improvement of the country's role and position in international economic integration (Federal Democratic Republic of Ethiopia, 2001). As will be described further below, this policy framework marks a shift away from state-controlled development and toward the employment of neoliberal development strategies, including the privatization of many enterprises, the elimination of subsidies, devaluation of the currency, and intensification of agriculture, all intended to stimulate the growth of an export-led agro-industrial economy. Because of the extreme rural poverty characterizing many rural areas, however, the need to ensure food security poses a significant challenge to these goals, amounting to what would appear to be contradictory policy goals.

The set development strategy is envisaged to transform the previous centrally-planned and state-controlled economy into a market-oriented economy, with the agricultural sector being the starting point. The strategy is directed towards accelerating and expanding industrial development and economic growth by developing the agricultural sector. The sector is believed to serve a crucial role in providing the inputs for industry, and for fulfilling the food requirements (Federal Democratic Republic of Ethiopia, 2001). With more capital stock, the industrial sector is envisioned to intensify and expand, to take over and become the leading sector in the economy (p.7).

The basic reasons for following this approach are the country's acute scarcity of capital, which cannot easily be resolved, the availability of a large working population, where more than 85 percent of the total Ethiopian population is rural, and where most of

the land is rural (p.5). If other development strategies are used, requiring a lot of capital, the economic development will likely be limited, and the large working population and available land will remain idle (p.6). Hence, ADLI presupposes the adoption of methods for enhanced productivity of agriculture for small-holder agriculture and for industrialization that is based on the use of domestic raw materials, via labor-intensive technologies, as well as the development of large-scale private commercial farms (Federal Democratic Republic of Ethiopia, 2002a). The strategy also presupposes that the development of agriculture will expand the market for domestic manufacturing, implying increased incomes for small-holders (p.2).

ADLI is a basis for a poverty reduction strategy and a food security strategy (FSS) in Ethiopia (Federal Democratic Republic of Ethiopia, 2002a). Ethiopia has FSS since 1996 that has been updated in 2002 (p.1). “The overall objective of the FSS is to ensure food security at the household level, while Agricultural Development Led Industrialization (ADLI) will focus on creating the conditions for national food self-sufficiency” (p.1). Poverty reduction is the basis for all macro and sectoral development policies in Ethiopia. Beginning with the Sustainable Development and Poverty Reduction Program (SDPRP), the first phase covered 2002/03-2004/05; the second phase covers 2005/06-2009/10, the Plan for Accelerated and Sustained Development to End Poverty (PASDEP) is underway (Federal Democratic Republic of Ethiopia, 2006).

ADLI is a long-term strategy, and under the SDPRP, the priority for agricultural development is to increase food security, and in the medium-term, as food security improves, more exports should go to the international market (IMF, 2004). Nevertheless,

since the extremely small proportion of urbanization (15%) is not expected to have an adequate domestic demand for the agricultural outputs, international exports will be used for market outlets ((Federal Democratic Republic of Ethiopia, 2002b).

Currently, the agricultural development is in transition, with the co-existence of production for subsistence and for the market. The idea is for the production to transfer into more market-led agriculture as economic development progresses (Federal Democratic Republic of Ethiopia, 2001). The existing subsistence agriculture is to be changed to surplus production for market, by such measures as commercialization, intensive farming, and increased marketable outputs to stimulate the growth of the economy (Federal Democratic Republic of Ethiopia, 2002b).

Under PASDEP, which is supposed to build upon the SDPRP strategies, the ADLI (once a pillar of SDPRP) has shifted to new interventions. According to the strategy for PASEP:

It will also continue to pursue the ADLI strategy, but with important enhancements to capture the private initiative of farmers and support the shifts to diversification and commercialization of agriculture. But there is now a consensus that growth is of the essence, and an accelerated growth strategy is at the core of the PASDEP (Federal Democratic Republic of Ethiopia, 2006, p.46).

The shift in the PASDEP policy seems to be influenced by the global economy through such measures as Structural Adjustment Program. Similar measures have also been taken by other states, as suggested by several authors (McMichel, 1997; Sauer, 1990; quoted in Prugl, 2004):

The shift in regulation from nation-statism to global governance, associated with the demise of Fordism, has entailed a parallel shift in rhetoric in the institutions of governance from a focus on 'modernization' to a focus on 'globalization' and, in the agricultural sector, from a concern with food security to a concern with efficiency and sustainability (p.351-352).

Furthermore, ADLI, where the priority was on smallholder peasant agriculture, is not included as a PASDEP development pillar. This is a clear shift in the state intervention of ADLI, at least at some levels. However, measures are being taken that include some parts of ADLI provisions:

The government has a difficult balancing act to manage, since improvement of pro-poor subsistence farming needs to take place in parallel with this shift to commercialize agriculture. For several million households, the main welfare improvement in the medium-term will still come from achieving higher yields of basic food grains. This will be pursued through a combination of intensified extension support at the kebele level, establishment of a network of demonstration centers, increased low-level veterinary services, support for small-scale irrigation and better use of ground water, complemented by PSN and off-farm income-generating initiatives supported under the Food Security Program. Both of these agricultural approaches need to be pursued in conjunction with measures to

manage the natural resource base and to protect the environment (Federal Democratic Republic of Ethiopia, 2006, p.47).

Nevertheless, issue of conflicting objectives between food self-sufficiency and international market strategies on one hand and the adoption of small-holder agriculture and commercial farms has been a concern by some development partners and researchers (e.g.DAG, 2006). DAG (2006, p.17) commented that:

Agricultural commercialization and improving pro-poor subsistence Farming? PASDEP, on the one hand, fosters commercialization; on the other hand it wants to contribute to welfare improvement by assisting pro-poor subsistence farming through achieving higher yields of basic food grains. Can these approaches go hand in hand, even in the same geographical areas, or does a strategic trade-off need to be made?

Various international organizations, development partners and NGOs participate in the various sectors of development in Ethiopia such as financing and capacity building.

As in many other African countries, the adoption of the Structural Adjustment Program (SAP) has been an economic reform in Ethiopia since 1991, and used to integrate the country's economy with the global economy. The official objective of SAP policies was "to stabilize domestic economies, to stimulate economic growth, and to ensure the country's ability to earn the foreign exchange needed to service its foreign debts" (Hoogvelt 2001:181) in which stabilization focuses on financial management through lowering imports to reduce payment imbalance (McMichael 2004). As outlined by McMichael (2004, p.134), the SAP measures that are required by countries include: drastic reduction of public spending (especially on social programs, including food

subsidies); currency devaluation (to inflate prices of imports and reduce export prices, thereby, improving the balance of trade in the indebted country's favor); privatization of state enterprises; and reduction of wages to attract foreign investors and reduce export prices.

Within four decades, the Ethiopian economy changed from a liberalized economy (until 1974) to a state-controlled economy (1974-1989/90) and again to a liberalized economy (after 1991) (Federal Democratic Republic of Ethiopia, 2002b). As summarized by Nichola (2006), from 1961-1974, Ethiopia has been ruled by a Monarchy, where the agricultural sector was predominately feudal in which tenants paid in general one third of the outputs. However, in the second half of the 1960s, the imperial government formulated a policy of agricultural development that consisted of encouraging mechanized farming by private entrepreneurs on unused government unused land. Tax breaks and duty-free agricultural machinery were the incentive provided to the investors. Green revolution was introduced in this era where the productivity of the peasant agriculture was improved that was later constrained by inadequate supply and distribution of seeds and fertilizer (Araia, 1995 quoted in Niqhola, 2006). From 1974-1990, the military government adopted a populist socialist path of development where banks, major manufacturing firms, and the right to import and export, were under government control. Since 1991 the current government took power where many of the military government were reversed-it privatized nationalized and loss making firms and encouraged privet sector investment in banks, manufacturing firms, commercial farms and other activities. Furthermore, trade was liberalized and privet sector import and export were permitted. Trade liberalization and other related measures were initiated by World Bank and IMF as

part of poverty reduction strategy. The World Bank and IMF requested the least developed countries particularly the heavily indebted countries to formulate strategies for reducing poverty in line with the Millennium Development Goals and in return, the countries would receive debt relief under the enhanced Heavily Indebted Poor Countries (HIPC) (Amdissa, 2006). Some of the measures that were taken by Ethiopia, especially in relation to liberalizing trade, included the 1992 devaluation of the national currency by about 58.6 percent, elimination of all taxes and subsidies on exports, import tariffs reduced from 230 percent to 40 percent, privatization of all state-owned retail trade shops and stores, elimination of price controls for all products except on petroleum and petroleum products, removal of all restrictions by private traders, and establishment of trade support institutions (Demeke & Abebe, 2003). In the agricultural policy, it is indicated that subsidy will clearly not be an option for agricultural development. The policy emphasizes that:

...under our conditions, other than developing through improving the productive capacity of the people, subsidy should not be considered as an option, and that even if it were needed, it would have been an irrelevant option because we do not have enough money for construction of economic and social infrastructure, not to mention about subsidies. Accelerating our agricultural development is possible only if we can be competitive in market without any subsidy. Although there is some cost-sharing in the government's effort to popularize new technologies in which the cost partly covered by the government itself could be regarded to some extent, as subsidy, the other is to be achieved only if the producer will be able to be competitive in the market without any subsidy. This is why the ability to sell at

competitive price and quality should be taken as the only feasible option of development and subsidy should be excluded from our account (Federal Democratic Republic of Ethiopia, 2001, p.84-85).

The research and agricultural systems that are in place in Ethiopia are expected to facilitate the transition to market-led agricultural development, especially to international market-led agricultural development, by developing and transferring the required packages to farmers (Federal Democratic Republic of Ethiopia, 2001). Presently, agricultural extension focuses on revising and amending the existing packages that are mainly for cereal, pulse, and oil crops; developing new packages that focus on marketable products including spices, vegetables, and fruits; and diversified areas for agricultural research activities (Ministry of Information, 2005; 2006).

In Ethiopia, SG 2000 was initiated in response to the widening gap between food supply and food demand, especially because of the devastating famine in Ethiopia in 1984/1985 (Gebre, 2001). The strategy of the extension program was for technology-based, supply-driven intensification to occur through supply and promotion of improved seeds, fertilizers, pesticides, and farm practices, with provision for credit for input purchases. The approach for implementing the program was to use model farmers who have proven to be active and willing to participate in demonstration plots, with the hope that others will follow, after seeing what the model farmers have achieved.

The government declared the extension program to be a great success and the success led to the idea that the productivity of small-holders could be increased by the adoption of the program nation-wide. Based on the ADLI development strategy, and the influence of the SG 2000 success story, the government formulated a small-holder

intensification agricultural program, known as the Participatory Demonstration and Training Extension System (PADETES) that was launched in 1995 (Kassa & Degnet, 2004; Gebrekidan et al., 2004, quoted in Gebreselassie, 2006), and which covers extensive areas in the country (SG 2000; 2002a). The objective of PADETES was to enhance pro-poor sustainable development in rural areas by increasing productivity, reducing poverty, and attaining food security (Gebreselassie, 2006).

In a survey by Kassa and Degnet (2004) in south-western Ethiopia, the marginalization of poor farmers was suggested to be due to the PADETES program and the limited attention shown by extension agents for the resource-poor farmers who were not participating in the package program. The survey also indicated the effect of not incorporating the farmers' knowledge and experience into the program. Farmers who were participating in the extension program were expected to pay a 25 percent down payment for the input package at planting time and the remaining after harvest, and a 10.5 percent interest rate is applied to the input loan (p. 151).

Key Findings

Agricultural governance

Agricultural governance practices have been initiated in which government agricultural offices, non-governmental organization (NGOs) and farming communities jointly are working on agricultural development in the study area.

Some activities have been initiated in the introduction of enset crop to lowland areas where the communities are food insecure and are depending on food-aid. Some

NGOs have been working in the country since the great famine of Ethiopia in 1984 and in a belief that relief program is not sustainable shifted to development program. Through the partnership created in the study area between government agricultural offices and an NGO working in Sodo woreda to introduce enset crop to the lowlands, the NGO adapted the government's program in the introduction of enset to food insecure lowlands. As stated by one of the participants:

Our program is working in areas that are drought prone and that are food insecure. This is based on the agreement with the government. ... The organization's nature is working in partnership with the government organization. So we work with the community and government organizations. We do our activities jointly with the agricultural offices. Starting the regional selection, site selection, seedling selection, and so on have been done with joint efforts with agricultural offices and the communities.

As indicated in the excerpt, the NGO does not have its own program but a joint program rather than the traditional NGO activities used to be practiced in the country. Or it is not as Teisman and Klijn (2002, p.198) put it "contracting-out scheme" where the NGOs provide services that the government institutions used to practice. It is rather partnership arrangement where all actors participate in the decision-making process including the government agricultural offices, the NGO and farming communities. Nevertheless, the level of farming communities participation in the decision-making process is an area that deserves to be researched.

The initiation of partnership arrangement , particularly public-private partnership is an opportunity for further expanding the opportunities that have not been sufficiently

exploited that are available at international, regional, and national levels like Millennium Development Goals and other provisions.

Consensus on the limited contribution of neo-liberal globalization of agriculture to Enset crop development

Consensus has been observed among policy makers, researchers and agricultural offices heads and agricultural extension workers on the limited contribution of neo-liberal globalization of agriculture to enset crop development. The agricultural extension program in the study areas apply mainly to annual crops. No agricultural extension packages are used for enset. Nevertheless, since enset-based agriculture is a polyculture, and enset may be produced as a staple or as a co-staple food along with cereals, pulses, roots, tuber crops, and vegetables, the agricultural extension program is implemented for the annual crops in some areas.

The agricultural extension workers indicate that they do not have new information to provide to the farmers, and the farmers are more knowledgeable than the program workers. The program workers regret that they are lacking in training and experience that might help the farmers to improve their enset production. The agricultural extension workers are concerned about this knowledge deficit, as one of the male agricultural extension workers from the highlands indicated:

If the farmers face crises in enset production any day, I have a concern that we are not in a position to contribute to the solution to be made in enset production. I have not contributed as extension worker to the cultivation of enset. I only focus on helping the farmers on other crops which are taken as extension crops. I only talk about enset when it is time to report to woreda which is regularly done every three or four month. I ask the farmers information on yield of enset in their gardens and other than that I do not have a planned program for enset.

Furthermore, although the extension system has promoted “uniform packages throughout the country and for all groups of farmers” (Kassa and Degnet, 2004) those who are unable to meet the preconditions for involvement become marginalized and fail to receive the benefits to which they are entitled. One of the male agricultural extension workers respondents in this study described the situation as follows:

Most of our activities focus on farmers who use improved seeds and fertilizers inputs. We do not focus on those who use local seeds and on those who do not practice the new technology. Our intention is every farmer will come to use the new technology by shifting from the traditional one. Hence we do not encourage those farmers who are practicing the traditional methods.

Other crops are produced in limited amounts, as supplements for the food value obtained from enset. The extension program in the highlands was not extensive, because of the fragmentation of land that is mainly used for enset production. Most of the farmers who have limited land for farming believe that they cannot benefit by applying new technology (such as fertilizer) because the extra yield will not cover the higher cost of

inputs. In the midland and the lowland, the primary agricultural production is in the grain crops, enset is planted in small numbers, not usually exceeding 100 plants per household. In the highlands, the rich farmers have more than 1,000 plants, but in the midlands, even though the land is not scarce, the main concern is about the competition with annual crops in matters of time and labor, and for the potential for annual crop production. The farmers use fertilizers and improved seeds, which have replaced the local seed. They also reserve the improved seeds for the next season to save on the cost. For maize, which is a hybrid seed, the practice of reserving the seed can result in a lower harvest, though the repeated use of reserve seeds is carried out by farmers in the lowlands, midlands, and highlands. One of the male farmers respondents from the lowland states the situations as follows:

In the farm I have maize, wheat, millet & tef. We have local tef. We do not have our local wheat, maize and millet seeds. We plant half of them what we have bought this season and half of them the seeds we reserved from last year. We do this in order to reduce cost of inputs. Fertilizer cost is increasing every time. If we face environmental problems we may be in a problem of paying our loan so we are trying to reduce that risk by mixing the seeds we reserved from last year harvest with the seeds we bought this season. However, we know that unless we use the required fertilizer with the new improved seeds the yield decreases.

Similar experiences have been observed in the midland farmers as argued by one of the male farmer participants in the midland:

I have participated in extension program. I started in 1994 E.C. I took maize and wheat for 1994 and 1995 and after that I have stopped. I have discontinued because of the cost of inputs. It was unaffordable for me to pay taxes, to pay for my children school and to pay for the inputs. The return did not cover these payables.

The experience of a male participant from the highland was as follows:

We use fertilizers with the improved seeds...The yield from the extension is almost double of the local variety. Since the cost of improved seed is not affordable I use repeatedly the improved seed already in my farm about four years and after that I buy again a new improved seed. The yield decrease when we use the improved seeds repeatedly. We are practicing this in order to reduce the cost of production.

The cost of fertilizer and other inputs has risen after the subsidy was removed, as part of the country's liberalization process. Fertilizer subsidies were completely removed in Ethiopia by 1997 (Broeck & Dercon, 2001).

Difference in perception on the state of research and development on enset

Variation has been observed on perceiving the state of enset crop research and development in Ethiopia. The variations have been among policy makers, researchers particularly researchers involved in enset crop research, agricultural office heads and agricultural extension workers. Agricultural research in Ethiopia is based on links with

external organizations. As a result, most of agricultural research and development in the country has been focused on cereal crops in the agricultural system, as indicated by one of the interviewees:

Agricultural research in the country was based on the link with organization such as FAO (Food and Agriculture Organization of United Nations), CIMMYT (Centro Internacional de Mejoramiento de Maiz Y Trigo (Spanish: International Maize and Wheat Improvement Center, Mexico) and CGIAR (Consultative Group on International Agricultural Research) and the attention was on grain crops. They have no research experiences on enset and similar crops to influence the research in agriculture in Ethiopia. It is only in Ethiopia enset is used for human consumption though it is also found in other countries (excerpt from Freelance Consultant participant).

Nevertheless, while only a small number of researchers indicated an interest to work on enset, recently, scientists have begun to recognize the special qualities of enset such as its drought resistance, environmental benefits, and the number of people that depend on enset for food security and usefulness as livestock feed. Because enset production is localized to the southern part of the country, the crop has been poorly recognized for its contribution to agriculture. According to head of agricultural office from the southern region:

If you consider for example wheat and tef, you can find them in most part of the country. So to do research on these crops you have opportunities to do your research in many places. But to do research on enset you have to come to the southern part of Ethiopia.

Those researchers who have done research on enset; however, are those familiar with the benefits of the crop, as indicated by an interviewee:

The researchers are from the regions that had opportunities for education more than others. The southern region was one of the regions that were not privileged to get those opportunities. So those researchers from the other regions that are not familiar with enset have no interest to work on enset. Most of those who got educational opportunities better than the southern region were from the northern and central part of the country. The fame in Ethiopia was to eat tef particularly to eat white tef, fatty meat and tej (local drink made of honey). There was no as such interest by the public for root crops and enset. So it can not be said there are pushing factors and bodies that can create environment for enset research. There is no concern about 'doing research let us develop enset technology.' (One of heads of agricultural offices in southern region research participants)

Currently, researchers who have interest to focus on research are facing a dilemma. As one of the consultants respondents commented:

In general, in our country since there is no incentive to do research they are not doing research with their full capacity because of the rising cost of living.

Previously, they were fully committed on their research and spent most of their time. However, at present they have taken research to be an 8-hour task. The rest of their time they use for other jobs to supplement their income. So being in this situation we cannot move much. So the government or the non-government organizations that focus on food security and poverty reduction in the country need to focus to improve the productivity of the crops.

Besides the research organizations that have a major mandate to conduct research, higher education institutions are also performing research activities. In many cases, however, the faculty members who once carried out research studies are now obligated to spend time on other responsibilities like administrative assignments, due to the general expansion of universities in Ethiopia. Furthermore, the incentives for doing research are limited, as indicated by one of the respondents from the universities:

Though it is one of the mandates of the university to do research work, there is nothing we can say that if you are not doing research you will be losing this. Hence those who do research are those who are willing to do so by themselves. There is no incentive or disincentive for research activities in the universities. But students only are doing part of their program of study... Financial resource is not like previously. There is a reduction in financial resources from those higher education institutions used to receive fund for research activities. On the other hand, there is government allocation of fund under regular budget for research which was not an experience before. However, this fund is for undergraduate and post-graduate students, not for professor's researcher activities. So based on these factors I share the ideas that the general research activities are poor.

Many of the interviewees connected the lack of research on enset to the nature of the crop, and to the lack of motivation by researchers to work on enset. A number of issues are involved, including: 1) the nature of the crop is difficult as it takes a long time to be established. It could take 5-7 years for a crop to reach maturity, which would be discouraging for some researchers; 2) enset has a pungent odor after fermentation that may be repulsive to researchers; 3) donors usually provide funds for short-term projects

and since enset requires many years of growth before results can be obtained, donors are not willing to invest; 4) since little research has been carried out on enset in the past, graduate students are more likely to begin new projects on enset, but shift their research interest after earning their degrees. Thus, long-term research is less likely; 5) even though some research efforts have been made on enset, the researchers often shift to studying other crops because of the lack of incentives. Those researchers who are assigned to work on enset are not doing so out of their own interest, and claim to have been given no choice; 6) since enset production is only in southern and south-western Ethiopia, those researchers who are working on enset are only those who have experienced the benefits and who know how to use enset. The amount of existing data on enset is minimal and new research activities would have to start from scratch, which is not appealing to some researchers; 7) the food from *kotcho* is said to be low in quality compared to other annual crops. Because of these limitations, enset has received very little attention from researchers.

As indicated above, numerous problems are associated with enset. Hence, to improve the existing situation, a coordinated and long-term research effort must be designed and carried out. Coordinated teamwork must also be included in the program activities, manpower, and funding management.

Nevertheless, despite the above arguments, some researchers believe that the main problem is not the lack of research on enset, which is nowhere near the level of research on crops such as wheat, and other cereal crops. They believe that what little research has been undertaken has been done in an uncoordinated and dispersed manner. One of the researchers stated:

I do not think there is a body that has collected and contextualized what has been done so far and say these are what have been done and these are the gaps to be filled by research... So when we say enset has been recognized as a national crop, these issues have to be answered. What has been done around enset? What do we know about enset? What we do not know? So we will need to fill the gaps and identify the problems on enset. If these can not be solved from the research outcomes already done, we will begin new research initiatives... What is lacking is there is no connection of one research to the other.

Furthermore, the research findings are not being presented to be understood by policy-makers. According to one of the researchers, “the policy-makers may not necessarily have research knowledge.” Most of the research outcomes only serve an academic purpose. Hence, even the available research findings are not studied in a manner that can be translated into action. This has implications for how research findings can be put into effect. For example excerpt from a researcher participant indicates:

If research findings are simply academic and the nature and language of the research cannot be translated into action, how can the policy-makers translate the findings and make use of the results? This would be a major weakness of the current research endeavors. If the research findings are academic and knowledge-building, they can be used by students, instructors, and researchers. But if research is done to solve a problem, the solution should be available in concrete terms. If we do not show the solution for a particular problem, it is not enough to say that a particular government body did not give it the required attention

The idea of availability of onset research findings is shared by other interviewees, for instance one of the research participants from the universities argues:

At present, there are many staff members who are working for their PhDs and MScs on onset. However, whether these results have reached to the end users is questionable. I do not believe that these results have reached the farmers. So, what should be done on this regard is under discussion among us. Recently through aid fund ...we are in the process of preparing a book that can be used for the end users. The book will cover the results of what have been done in the past and it will give some information for the farmers on how they can make the achieved research findings practical on the ground.

Nevertheless, the above excerpt need to be understood that the agricultural extension workers will bridge between the researchers and farmers so that farmers could benefit from the outcome of the book.

Some interviewees also indicated that no feedback has been given about many of the research findings. "The researchers do not send the outputs of their research even to those who gave them the information. So the studies have been done only for academic purposes." The major concern is that most of the research outcomes do not reach the decision-makers, and thus, the results of research are not used.

Farming Communities resistance to disincentive in the production of enset crop

Farming Communities resisted to disincentive in the production of enset crop and persisted in growing enst crop as their food sovereignty right in the presence of strategies influenced by neo-liberal globalization of agriculture. Farmers face some disincentives when focusing on the production of enset in place of annual crops. In the enset growing areas, the contributions of farmers to sustain the production of enset are matched with the disincentives experienced by the farmers that have implications for food security of the communities. As one the Kebele PA leaders' respondents put it:

There are not many experiences in the highland where the farmers are replacing enset plantations by annual crops despite the push from the extension workers. Previously, around 1990 Ethiopian Calendar, (1998 Gregorian calendar) the extension program was not leaving the farmers to choose what they want. The extension workers were trying to force the farmers to use wheat. However, the farmers resisted very much. There were some farmers who use wheat in the extension program. At that time the rain was very heavy and the farmers lost what they had in their farm. Hence the farmers were in problem in paying the loan they got for the inputs. At this time there was no problem on enset garden. This was a very good experience for the farmers to stick to their enset garden. Enset is like a mother who gives breast feeding for her child whatever she has in her breast. Enset is very similar to this. Enset gives food to the farmers whether it is small or

large, good quality or poor quality. Whether it is well managed or not it is sure you have something to harvest from enset.

Despite being recently recognized, enset as a national crop still receives little attention in regards to its development. The following testimony illustrates the point:

It is important that a focus be given at national level. I am stressing this because I have an experience in last year that I have experienced the effect of lacking policy attention. Last year I went to... and wrote a proposal in the name of southern regional government on enset ... The basis of this proposal was that in ...where I have done my research on enset used to produce enset very largely but in the last 20 and 30 years it has been replaced by coffee and annual crops and as a result enset production declined. When enset production declined there has been observed to be associated with food problem in the area. So by observing this problem I and other... researcher prepared a proposal and submitted to... in Ethiopia... was pleased on the proposal and they were in favor of strengthening the available traditional technology in the ground than bringing unfamiliar technology from outside. This has basis on that... in Ethiopia believes that imposing new technology on the farmers did not bring a change in the country and so they had appreciation on the proposal submitted. However, when it was sent to... where the money is released for development cooperation the proposal has not been accepted because ... did not recognized enset as a national crop that deserve attention to be given focus. Because of the lack of attention given to enset by the government of Ethiopia that proposal could not be accepted. The response we got was “is this crop important to the country?” If it were for example coffee

or maize this could have been a different story (Excerpt from one of the researchers participants).

The above excerpt indicates that recognizing the crop as a national commodity without popularizing it to the concerned bodies would have little benefit. According to one researcher participant, “it is not enough to put it only in writing the government needs to popularize it to the concerned bodies so that it will get attention by others.” By this way, the crop would be recognized by development partners for funding, since the policy of the funding countries and agencies is based on demand. If enset does not become a priority, external funding may not be available. The government needs to popularize enset at various levels so that it can receive more attention. Presently, many people, even at the national level, are unaware that enset is a national commodity, and the development partners are even less aware of enset. Furthermore, the excerpt implies the need for improving the available traditional technology produced by locally available resources by integrating with modern technologies rather than introducing brand new technologies that probably may not have economic viability and socio-culturally acceptability.

Furthermore, in the government’s villagization program (A program envisaged clustering villages to improve the access of rural residents to social services) most of the enset gardens were destroyed by government personnel when displacing the farmers to new areas to produce annual crops. Nevertheless, some farmers resisted abandoning their enset gardens, but co-operated in resettling to their new places while retaining their enset. According to one male farmer interviewee from the midland PA:

During villagization (former military government), I used to come daily from a distant place to protect enset against wild animals. At the time of transitional government we all returned to our place. When we returned though it was not like it used to be in previous years before the forced villagization program, still we got enset for our food. Hence, enset is just a crop that does not let you starve and so we were able to continue reviving it after our return. We have great respect for enset particularly after the 1977 Ethiopian Colander, (1984 Gregorian calendar) famine. Let alone us other relatives from the lowland joined us to use enset and they were able to survive because of enset. That is why we are protecting our enset. Another threat from government involvement is in the disincentives created by the agricultural extension workers who promote the production of annual crops instead of enset. Furthermore, the current focus of the government is on cash crops and even the respective regional states follow the federal trend.

Some respondents associate the lack of policy recognition with the absence of a responsible coordinating body to bring enset into the forefront. The problem is not that concerned community bodies at the local level have failed to attract the attention of higher government to the issue of enset. On many occasions, reports were made by the responsible bodies at the local level, but the higher bodies showed little reaction.

According to one of the agricultural extension workers respondents:

It is not only us who are aware about the problems on enset but I believe that the higher authorities are also aware. The farmers raise the issue whenever they get the chance in meetings. They insist on the need for support about enset which they claim is vital for their survival. We regularly report about problems in enset production to the next higher responsible body; however, the response is to advise us to tell the farmers to follow their own traditional methods to control enset diseases. The farmers are ready to contribute whatever might be possible for them to improve the enset diseases. It is unfortunate no one is ready to listen to the farmers' requests in this regard.

In contrast, the government's focus for a particular agricultural crop depends mainly on the customer demands for products; enset must fulfill the needs of consumers to receive adequate attention from the government. As one of the policy makers noted:

Any crop... if there is demand by consumers, it will get attention. For example, tef has a very big demand by consumers and I presume tef is the main crop in the country. Tef is getting demand nowadays not only by Ethiopians but also by people from other countries where it is being used as a food source. This is not only for Ethiopians living outside of Ethiopia but also other nationalities focus on it as a food. Tef has been discovered to be gluten-free and hence, there is a study going on to use tef for cakes and soups. We are also preparing ourselves to export tef. Therefore, the fate of agricultural crops is based on the demands by consumers.

If no changes are made to the enset-based agriculture, in terms of research and development, and the existing population growth and land degradation continues, the danger of replacement may be inevitable. According to a researcher:

if we do not do something about it as is the case in...area that is still practiced in the same that has been for many years the danger of being replaced by other crops will be obvious. ...area has not been done any activity of such sort. That may be one of the reasons enset is being replaced by other crops. Enset processing is very tedious if the situation is not being changed and if there are other alternatives, there is a possibility of changing the culture to other practices. For example in ...area it was only in small plots maize was produced. At present time maize production is expanding. Farmers are shifting from enset, tef and sorghum to maize because it is easier to produce maize compare to the other two crops and maize can be produced twice in a year. Therefore, maize importance is increasing and enset importance is decreasing. But if you understand the situation when there is drought or excessive rainfall maize will be lost and enset will be surviving. Hence, though it is the farmers' traditional practice it is important to sensitize the farmers about these situations.

Discussion

Globalization does not affect everyone at the same pace and at the same level, even though all parts of the globe are affected in some way. The levels of growth can vary widely. As Frechette (1999, p.4) states:

despite the opportunities offered by globalization, hundreds of millions of people were living in desperate poverty, while countries most in need of trade and investment were being bypassed. Many people experience globalization not as agent of progress, but as a disruptive force capable of destroying jobs and traditions in the blink of an eye... So even as we welcome the good that globalization has brought and can bring in the future, we must be also lament the ills that too often come with it. Our challenge is, therefore to make globalization work better in producing equitable growth.

Similarly, transfers of technologies are not a “one-way street,” and not all parties benefit from them because of varying aspects of globalization and the SAP measures, which are part of neo-liberalization. These can involve drastic reductions in social programs such as subsidization.

The integration between research, extension, and end-users has some limitations. A growing recognition is seen for the lack of integration by various researchers and by development workers in research, development, and extension activities. SG 2000(2002, p.iii) state that:

The existence and availability of improved varieties and crop production technologies with the potential to double or triple traditional yields in Ethiopia did not help the country to increase the productivity of crops in the peasant sector partly due to poor linkage between research and extension systems.

The limited integration among the various formal and informal institutions can lead to a limited progressive social change in rural communities. At the same time, the provisions of change, in place at various levels, (i.e., research, development, and extension activities) are supported by international, national, and regional policies, as part of the formal institutions and activities of the farming communities, and are part of the informal institutions. Although some of the benefits have not been shared by all, a great potential exists for those who are marginalized to benefit from globalization, according to the mechanisms behind the slogan: 'Think globally, and act locally'.

Financial resources are often limited, especially for researchers in government institutions. The limitations tend to restrict the number and types of research activities, as well as the agro-ecological settings in which studies are carried out. This is a more generalized problem of the research activities in the current era of neo-liberalization, where the focus is on cash and export crops. The limitations need to be overcome for a traditional crop like enset, for the sake of sustainable agriculture and to benefit the communities that depend on the indigenous agricultural system. With the current focus on products that are market-demanded and economically competitive, especially for the international market, more attention needs to be given to products such as enset that can serve as public goods and offer food security and environmental protection, since they are not yet economically competitive. Despite the variety of international and national

policies on food security and environmental issues in this era of neo-liberalization, their implementation has had a limited effect. New policies, such as the Millennium Development Goals, which was signed in 2000, have been created to improve existing conditions. Other opportunities have also been created by the process of globalization that can be useful for reducing unintended negative effects of globalization. Inevitably, a crucial need exists to explore and create integration at all levels so that the principal goals may be achieved.

Conclusion

Globalization is not to be feared or seen to be contrary to the benefits of new agricultural technologies. What is needed is a multi-directional strategy, so that it will work from the top-down and the bottom-up and be able to deal with the most important issues of nature and the peoples of the Ethiopia.

While changes in life are inevitable, to be successful, we must be able to manipulate the direction of the changes. Globalization is seen by critics as being unidirectional with development flowing from the developed to the less developed countries of the world though it is not a consensus view by all. However, whether the direction of development is unidirectional or multidirectional, the vehicles of change, especially communication mechanisms, are contributing to the flow of scientific innovations, including agricultural technologies to places where they are not available. Nevertheless, unexploited potential still exists, that can play a great role in the current controversy about the pros and cons of globalization. As has been experienced in different parts of the world, globalization has led to both positive and negative effects

when agricultural technology is transferred from one place to another, to change agricultural productivity for either local consumption or commercial purposes. Although some of the benefits have not been shared by all, a great potential exists for those who are marginalized to benefit from international markets and the transfer of modern technologies intensifying agriculture according to the mechanisms behind the slogan: 'Think globally, and act locally'. One of the central approaches is to create local-global linkages that recognize the diversity of issues involving agro-ecological, socio-cultural, and economic practices.

Recommendations

Policy support is required to support traditional farming communities in order to support them benefit from neo-liberal globalization of agriculture. The policies required need to be worked out considering the various scenarios existing in Ethiopia including the diversified socio-economic, cultures, and agro-ecological settings in the country. Nevertheless, one of the mechanisms to achieve the envisaged support is through local-global linkages. Issues like food security and biodiversity management can be contextualized according to local perceptions and linked to the various existing global mechanisms like UN Millennium Development Goals, and various international conventions with action programs such as the Desertification Convention, Biodiversity Convention, and Climate Change Convention. As has been indicated by Muller (2003), local-global linkages cannot be established directly because of the unavailable linkage between local-global as well as because of the limited and probably unavailable capacity at grassroots organizations at the present state of Ethiopia. There is a need for involving other government and non-governmental institutions that have direct contact with the

global mechanisms for the interest of facilitation and support for project formulation and implementations at grassroots level. The current federal system of Ethiopia favors decentralization process and has policy support as far as the capacity is available to initiate the process. The adoption of federal system of government in Ethiopia has created decentralization of power to the regional government, implementation of economic policies and development programs. (Federal Democratic Republic of Ethiopia, 2). Through the process of decentralization, districts are envisaged as centre of socio-economic development as stated below:

By way of deepening and broadening the decentralization process, measures are currently under way to pave the ground to render districts (Woredas) the center of socio-economic development. By way of ensuring their autonomy on resources, it is already planned to effect block grants directly to districts (Woredas).

Concurrent measures are also being taken in the area of capacity building, as technical capacity limitation is observed to be the major constraint in the course of implementing the decentralization process, which in turn is expected to foster socio-economic transformation at the grass-root level. The establishment of the new Capacity Building Ministry is one testimony for the government's commitment to further deepens the decentralization process. This is obviously a challenging and difficult process, not least because of the limitations in the possibility of getting trained manpower work at the district level. (Federal Democratic Republic of Ethiopia, 2002b, p.40)

Furthermore, scaling-up the initiated mechanism for development through partnership among government, development partners/NGOs and farming communities is

required to make significant social changes in the traditional farming communities.

Moreover, 'translocal' concept can be borrowed from Muller (2003) to create mechanisms for interconnectedness between the various grassroots organizations within a particular community and outside the communities. All these and similar interventions can be created that have potential support provisions by the various global mechanisms.

The bottom line here for this approach is that the main actors and initiators of the program are the communities.

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Chapter 3: Gender Roles in Traditional Rural Farming Communities Influenced by Neo-liberal Globalization of Agriculture: A Case of Enset Crop-Based Agricultural Communities in Ethiopia

Introduction

Men and women have differential roles, responsibilities, and decision-making powers in farming communities, which are typically socially constructed and differently influenced by globalization. Evaluation of women's role in agriculture provides an important means of studying globalization and gender. A gender gap exists, particularly in relation to access to and control over resources, where gender disparities occur so that women and children and society at large are disadvantaged which results in the reduced economic growth of that society (Scoones & Thompson, 1994; Klasen, 1999, cited in Jibat et al., 2007). This feature explains why women, particularly women in the agricultural sector experience "marginalization and pauperization".(Pande, 2000). Hence, the need to recognize gender roles is essential for development efforts, including those in the agricultural technologies (p.16) that often improve production efficiency and development, as well as the livelihoods of rural communities in general and of women in particular.

This paper highlights the influence of patriarchy and neo-liberal agricultural globalization on Ethiopian women in the rural agricultural communities drawing on a case study of the Gurage ethnic group enset crop-based agricultural communities. In the first section, I outline the research method followed. In the second section,

conceptualizations of gender globalization and governance are presented, and in the third section, the “patriarchy-invisibility system” framework is introduced for viewing the study findings. In the fourth section I present a summary of gender and globalization in agricultural production. The fifth section describes the background and in the sixth section, key elements of gender issues at policy and institutional levels in Ethiopia are outlined, and the prevalence of customary law in Ethiopia is discussed. Finally, the key findings are presented and analyzed in relation to gender and globalization, in enset crop-based agriculture in Ethiopia, which is followed by discussions, conclusions, and recommendations.

Research Methods

This study includes observation and semi-structured interviews, document analysis, and general field work. A reconnaissance visit was made to the study area to inform the people of the proposed study and also to acquaint the researcher with the village and the communities.

A total of 65 people were interviewed. The interviewees including men and women (55 men and 10 women) were selected based on their reputation for being knowledgeable in enset-based agriculture and communities. In addition, five women and two men participated in enset-processing demonstration organized by the researcher for the purpose of studying gender division of labor in enset-processing. Interview guides were used to avoid losing focus and to ensure that all relevant questions were asked. Questions were both closed and open-ended. All of the collected data was transcribed and

entered into qualitative analysis using the NVivo software program for thematic coding and analysis.

Conceptual and Theoretical Frameworks

Gender

Various authors have conceptualized gender in terms that revolve around socio-cultural factors. It is mainly associated with social relations between women and men (UNEP, 2005; IDRC, 1998) and the focus, as Zweife (1997, p.108) puts it, is on: “power relations between men and women and within society at large and demands on socioeconomic and political change.” A comprehensive definition of gender is given by the IDRC (1998, p. 4-5) as follows:

Gender is a culturally-specific set characteristic that identifies the social behavior of women and men and the relationship between them. Gender refers to social differences, as opposed to biological ones, between women and men that have been learned, are changeable over time, and vary widely both within and between cultures.

According to Jibat et al. (2007, p. 17), “Gender refers to the relations between the sexes, produced by social construction. It is a biological fact that women can give birth or nurse a baby; it is a social construct that child rearing should be left mainly to women.” Sex is merely an individual attribute that constitutes individual female or male whereas gender is something accomplished through interaction with others (West and Fenstermaker 1993).

According to Connell (2000), gender is a social structure with multiple structures that constitutes: (1) power relations linked to the subordination of women and dominance of men – ‘patriarchy;’ (2) production relations (division of labor) with a focus mainly on task allocation and benefit sharing; (3) cathexis (emotional relations) that consider whether or not the relationships are “consensual or coercive, and if pleasure is equally given and received” (p.25); and (4) symbolism, where gender disparity is manifested in a belief of gender dichotomy that is expressed in terms of dress, makeup, body culture, gesture, and tone of voice, etc. Connell argues that all of these structures are linked to the specific involvement of bodies where “Gender is social practice that constantly refers to bodies and what bodies do; it is not social practice reduced to the body” and hence, “lesbian and gay sexualities are gendered practices as much as heterosexuality.” (p. 27)

As has been rightly noted by Simone de Beauvoir (n.d.) , cited in Widerberg, 2000) gender as a concept indicates that, for instance, “one was not born a woman” as is the case of biological or natural sex, but rather, “...gender is the “unnatural,” the “unnatured” sex, while sex is the “natural,” the “natured” gender” (p.480) and hence, dividing gender into femininity and masculinity reduces gender to sex (Gerson 1985, cited in West and Fenstermaker, 1993). On the other hand, Collins points out: “gender mutually constructs and is constructed by race, class, ethnicity.” (n.d. p.263). To understand the power relation between men and women, a gender analysis conceptual tool is employed to systematically document the general roles and responsibilities, access to, and control of resources. IDRC (1998, p. 4) provides the following definition:

Gender analysis is the systematic examination of the roles, relationships, and processes between women and men in all societies, focusing on imbalances in power, wealth, and workload. Gender analysis can also include the examination of the multiple ways in which women and men, as social actors, engage in strategies to transform existing roles, relationships, and processes in their own interest and in the interest of others.

According to Ruxton (2004:2), “Gender analysis explores inequalities in gender roles and responsibilities in society, and identifies the practical needs and strategic interests of men and women. It asks key questions such as ‘who does what?’, ‘who has what?’, ‘who decides?’, ‘who gains?’, and ‘who loses?’”. As indicated below:

Gender roles are due to social factors that influence or allocate activities, responsibilities, and decision-making authority to groups of people. Gender roles change, often spontaneously and sometimes quickly, as the underlying social, economic and technological conditions change. Social factors which underlie and sometimes reinforce gender differences include religious practices, ethnic or cultural attitudes, class or caste, the formal legal system, and institutional arrangements (IDRC, 1998, P.5)

Through the process of gender analysis, knowledge is gathered about the extent to which certain rights are enjoyed and shared, for instance, participating with decision-making for access to, and control over resources, equal opportunities, and equity between men and women (Jibat et al., 2007, p. 18). The inclusion of gender issues is done through gender mainstreaming process. Gender mainstreaming operates in two levels: First, it operates at the level of institutional formation and organizational culture in which the

goal is to bring women into decision-making and policy-formulating positions within the organization, and secondly the systematic inclusion of gendered perspectives throughout like in policies and programs (UNEP, 2005). The bottom line in gender mainstreaming is empowering women and men as stressed by IDRC (1998, p.4), through “taking control over their lives: setting their own agendas, gaining skills (or having their own skills and knowledge recognized), increasing self-confidence, solving problems, and developing self-reliance. It is a process and an outcome”.

Globalization

As a grand theory, globalization has been contextualized by various scholars along different angles, which makes it difficult to attain a unified definition. Ngaire Woods (2000) defines globalization in terms of political economy. As outlined by Woods, globalization comprises three inter-connected elements but not constituting competing theories: the expansion of markets; challenges to the state and institutions; and the rise of new social and political movements. In the first element, it is the transformation of global economic activity through technological change and government deregulation that facilitate the establishment of transnational networks in production, trade and finance. In the second element, globalization is conceptualized as political in which at the extreme a new ‘global politics’ is emerging where ‘borderless world economy’ characterized by a global political order where states’ political boundaries become much less important. The second element emphasizes that ‘global issues’ such as human rights and environmental degradation have emerged which require coordinated policy-making above nation-state levels. The third element comprises the influence of globalization in altering the lives of

people across the globe affecting their culture and values producing a 'global culture' but simultaneously the existence of counter reactions expressed in such as nationalism. A 'global civil society' supported by modern technology emerges as an outcome of the process.

Furthermore, to assist policy-makers and other non-academics, the general definition of globalization by Dimitrova (2002) is adopted for this study. "Globalization is a multicausal and multidimensional process (or set of processes) that causes compression of time and space horizons, where all boundaries become permeable. It also structures a world of instantaneity, interconnectedness, interdependence, and interchangeability, as well as our consciousness with the world is becoming a single place or a global arena on which we all play" (p.102). Nevertheless, the political economy globalization framework is more useful for this study.

Governance

Governance according to Jessep (1998) has become a "buzzword" where its usage is diverse and requires further theorizing. However, currently governance has been understood and accepted by emerging academic writers the idea stated by Stoker in which "governance refers to the governing styles in which the boundaries between and within the public and private sectors have become blurred" (1998: 17). The propositions drawn by Stoker give a highlight for a number of aspects of governance. He argues that the propositions are not contradictory or competitive but complementary (Stoker 1998:18). These propositions are:

1. Governance refers to a set of institutions and actors that are drawn from but also beyond government.
2. Governance identifies the blurring of boundaries and responsibilities for tackling social and economic issues.
3. Governance identifies the power dependence involved in the relationships between institutions involved in collective action.
4. Governance is about autonomous self-governing networks of actors.
5. Governance recognizes the capacity to get things done which does not rest on the power of government to command or use its authority. It sees government as able to use new tools and techniques to steer and guide.

Conceptual Framework for the Patriarchy-Invisibility System

The more I study gender, the more I recognize two distinct ways in which societies disadvantage women: by discouraging women's participation in stereotypically male activities that are highly rewarded, and by failing to recognize the contribution of women, to value and reward the activities typically done by women (Excerpt from England 1990, p. xii).

The above excerpt aptly introduces the conceptual framework of the patriarchy-invisibility system, which will be further examined. The public-private dichotomy has been used by many researchers as a concept to analyze gender inequality in society. In the case of western feminists, "private" is understood as the patriarchal family home, and "public" is that which is outside the family (Bhattacharjee, 1997). According to

Bhattacharjee (1997) western feminists take the public and private spheres as separate realms; the public, according to feminist Catharine Mackinnon, is associated with states where the power is “embodied in law, exist[ing] throughout society as male power at the same time as the power of men over women is organized as the power of the state” (p. 170, quoted in Bhattacharjee, 1997, p. 312-313). Ever since the development of industrialization, commodity production has caused many traditional forms of production to be moved out of the home, which was no longer the center of production but is classified as non-economical, whereas, the public is classified as the economic world of the market. Consequently, public economic activities are associated with men and the home is defined as “women’s place” (Davidson & Freudenburg, 1996; Jaggar, 1983). Hence, as indicated by Dunn et. al (1993:74), “Much of the work performed within the home has use value rather than exchange value”. In analyzing gender socializing theory, Davidson and Freudenburg (1996) argue that:

the oppression of women arose from an ascription of women to the natural realm, whereas men have been credited with creating culture, often in opposition to nature... gender roles have often been noted to include a split between nature and culture, and a consequent objectification of women. Women’s place is often still limited to the private sphere, with concern about child rearing, food production, health, and other such “natural” responsibilities; even women in the public workforce continue to assume responsibility of housework and child care (Hochschild, 1989). Man’s place, on the other hand, stereotypically lies in the public or cultural sphere, which includes the arenas of business, politics, and science (p. 303-304).

Nevertheless, wage labor has been clearly created for women as a source of income, but in terms of men's domination and women's central role in caring for children and other domestic activities, changes take place only slowly (Bee, 2000). On the other hand, England emphasizes the existence of "reciprocal links between women's position in the paid labor market and in the household" (1990, p. 4-5). As mentioned earlier; however, the assumption that women's only place is in the home does not hold, even in such traditionally gendered contexts as the rural agrarian societies. Within formal waged labor, women constitute a high proportion of the agricultural laborers (Ampofo et al., 2004). Mbilinyi (1991, quoted in Ampofo et al., 2004) indicates that "the employment of more women as farm workers in Tanzania illustrates the efforts of owners to increase profits because women are often seasonal workers, earning lower salaries than men earn" (p. 700). Hence, the assumption that the paid labor is totally in men's sphere is an outdated reality. In any case, the oppression and marginalization of women persists, and the paid labor is mostly dominated by men, while women are segregated to the lowest paying jobs (Jaggar, 1983). Women's jobs are usually considered by men as "leisure" or "supplementary" (Mohanty, 1997; Prugl, 2004), or as help (Dedeoglue, 2004). On the other hand, the growing trend is for a more dominant role of women in agriculture, as the men migrate in search of jobs, or for other reasons, so that the "feminization of agriculture" is becoming a reality (FAO, 1998; SUNS, 1998). Hence, women in subsistence agriculture have acquired the responsibilities for farming and for daily farm management, especially as the men migrate to the cities (Adepoju, 1994b, quoted in Ampofo et al., 2004). All of the agricultural activities of women in subsistence agriculture, or in working on farms as farm laborers, are also performed together with the

responsibilities of housework and child care. Nevertheless, in Sub-Saharan Africa like Tanzania, many women are not willing to share their work with men since they have domestic workers or other dependents to do housework that make social transformation difficult (Ampofo et al., 2004). However, the labeling of household responsibilities with women and the private sphere does not mean that they have unlimited control at home. In fact, women accomplish a huge amount of work in situations where they possess little control (Jaggar, 1983). Women's place, therefore, cannot be designated to be in the private (home) or public spheres, and hence, the definition of a public and private conceptual framework cannot define women in agriculture in this era of globalization. As an alternative, a conceptual tool, the "patriarchy-invisibility system," is introduced.

The patriarchy-invisibility system is a co-existence of the conditions of traditional patriarchy, where women are defined as wives, sisters, and mothers in relation to marriage and family, and their visible and recognized domestic work (Dedeoglu, 2004; Mohanty, 1997), which is assigned to them based on their sexual identity and heterosexuality (p. 12). As a consequence of this belief, women's labor outside of the domestic sphere is not recognized (Dedeoglu, 2004; Mohanty, 1997). Invisibility is thus associated with the women's unrecognized role outside of the domestic sphere. The invisibility of rural women's role in agriculture in the rural communities can be explained by two key features: 1) the unrecognized role of women as participants in their own family farms as the case of women contribution to onset crop fertilization (manure) or as hired labor in the rural communities, and 2) women's role as managers of agricultural production during the seasonal migration of men to the cities (i.e., the feminization of agriculture), where men are integrated as part of the national economy which is in

someway part of the global economy being influenced by globalization. This point justifies the comment by Bee (2000, p. 255) that “globalization processes are mediated by women,” in subsidizing the men to be able work in the cities where they have low-paying jobs as unskilled laborers. Also, according to Cooper (2000), “women help men mediate between home and work without being detected.” (p. 397)

The two concepts, taken together, can explain gender relations in the traditional rural community that are influenced by globalization, such as in the traditional farming system (i.e., enset-based agriculture) carried out by the Gurage ethnic group. Hence, Connell (2000) and Widerberg (2000) indicate that patriarchy cannot explain gender relation in the present societies does not hold true because of the presence of traditional societies that can be partly explained by patriarchy, and partly explained by women’s invisibility that is influenced by modern or industrial societies through globalization. Researchers attempt to describe the system by referring to the concept of patriarchy in some cases and the concept of visibility in other situations. According to Widerberg (2000), these terms have been used in earlier studies where patriarchy was the dominant concept for describing and analyzing the relationships in power between men and women, and in more recent studies where the concept of visibility became more dominant. These two concepts are not mutually exclusive, however, since patriarchy does not fully explain all cases, and the concept of visibility can also be associated with some cases. Some traditional societies still experience and are influenced by patriarchy in the existence of gender inequality. In contrast, some modern societies have gender inequality that cannot be explained by patriarchy that considers women as “passive victims”. As Lim (1983, cited in Beneria, 2003, p. 78) notes, “there are experiences where women

have improved their livelihoods by being involved in paid jobs.” A similar argument has been put forward by Kabeer (2000, cited in Beneria, 2003, p. 78) where “women’s paid work has been associated with increases in the “power to choose,” even if within the many still existing constraints” that results in their “ability to act and defend their interests and those of their family and community in the face of most adverse circumstances.” (Beneria, 2003, p. 78) Hence, the use of a particular concept individually, or in combination with other concepts, depends largely on the level of development of the society in question.

Gender and Globalization in Agricultural Production

Men and women participate in agricultural production in rural communities, and women, particularly African women, play a crucial role in agriculture. Nevertheless, the contribution of women is mainly recognized in areas of food harvesting and processing. In general, as pointed out by Alston (2003, p. 163), “in agriculture, historically ‘farmer’ and ‘male’ have... become interchangeable.” The study by Alston on women in agriculture in Australia reveals that this trend has been assisted by official sources:

A good example is the debate in the Victorian parliament in the 1890s, where it was determined that women working in ‘unwomanly’ occupations such as farming and mining should not be recorded in official census statistics. It was considered that such a move should not give the impression to the world that Australia was a developing country, not a developed country. With such extraordinary logic, women working in agriculture and other ‘unwomanly

pursuits' were removed from the census. Statisticians of the twentieth century continued this tradition, building on the invisibility of women. Even today it is nearly impossible to gain an understanding of the extent of the work of women in agriculture (2003, p. 164).

Some of the factors that contributed to the invisibility of women in agriculture include state regulations such as the introduction of restrictions on women's participation in agricultural development, or on women's entry to agricultural higher education. Another important influence is the patrilineal inheritance that passes the farm to a son, and which denies the farm daughter's access to, and control or decision-making power; the common means of acquiring these provisions are marriage and widowhood. Alston further argues that "Men in positions of influence in industry groups, and the academy, have shaped a discourse of agriculture that ignores the invisibility of women and overlooks the subjugated agricultural knowledge of women." (p. 168)

As Ester Boserup (1970, cited in Spring, 2000), noted development efforts focus on men as recipient of new technologies and inputs and hence women have not benefited from the technical changes. Furthermore, the development of technologies has not considered the knowledge and skills of women; the role of women is largely overlooked (Pande, 2000). As a result, women's knowledge and skills, and production contributions have been lost from agriculture (Jigging, 1986, cited in Pande, 2000).

Men migrate to cities in search of cash from working as wage laborers, and leave their families in local villages, which burden the women with agricultural activities that were once handled by the men (Sachs, 1983). This results in a phenomenon called "feminization of agriculture" in many parts of the world, as men's involvement in

agricultural production declines and the role of women becomes dominant (FAO, 1998; SUNS, 1998). Despite their dominance in the agricultural duties, women contributions as the primary cultivators are not visible and most programs designed for the agricultural sector are directed at men rather than women (Mkandawire, 1989). Still, the feminization of agriculture is not a universal phenomenon and according to Prugl's (2004) study in Germany, the role of women's labor in German farms has undergone an overall decrease to 34 percent of family labor (compared to 53.5 percent in 1949). Variations are seen in the proportion of women's labor contributions, depending on the size of land holdings – increasing for small farms and decreasing for large farms (p. 355-356). In the case of large farms, Prugl argues that “Modernization thus entailed the masculinization of agriculture” (p. 355) and in the processes of modernization, social changes have occurred in family farming that have entailed a loss of women's power and status (Inhetveen, 1986, quoted in Prugl, 2004) in both developing and developed countries. The situation is well presented by Prugl as:

In the 20th century, government policies fostered a ‘second agricultural revolution’ encouraging the substitution of capital for farm labor in order to compensate for the loss of agricultural labor to industry under Fordism. Mechanization (tractors, harvesters, etc.), the use of chemicals (fertilizers, pesticides), the introduction of new breeds of animals and new strains of crops, new methods of cultivation and animal husbandry all led to an enormous surge in productivity of labor and land, reducing the need for agricultural labor and making it possible for a single farmer to sustain a farm together with a flexible labor of his wife (Ambrosius & Hubbard, 1989, pp. 171-180). A gender order that allowed the farmer control over his wife’s labor was crucial to the success of this form of modernization. In encouraging the preservation of family farms through their modernization, German and European policies helped strengthen patriarchy in the countryside (2004, p. 353).

Furthermore, despite women’s heavy workload in agriculture, women often lack the authority to make major decisions. Muro (1989, quoted in Ampofo et al., 2004) argued that “agriculture is in decline partly because of the failure to acknowledge women as primary producers” (p. 700). Moreover, Women contribute not only to family farming but also to farm industry. However, despite their major role in the farm industry, they are not recognized as major players to the extent even in the absence of men while a particular activity was performed. A good testimony on this is the story presented by Alston (2003) about Australian farm woman:

Elizabeth McArthur was a pioneer in the merino sheep industry. Much of the credit for her work is given to her husband, John, despite the fact that for 17 years the development phase of this industry he was absent from Australia. He was either in prison in England or living in England where he remained on his release to assist the children with their studies while they went to English schools.

When women are involved in commercial activities, within the existing constraints, those successful women as has been observed in Cameroon have diversified varieties and greater quantities of foodstuff than the non commercialized households (Krieger, 2000). It has been observed the children of those women who are involved in commercial activities are better nourished than the non commercialized households (p. 248). As has been argued by Agarwal (2000, cited in Spring, 2000), when men are involved in commercial production, but not the women, they may use the money for other expenditure not related to the household. Nevertheless, women who are involved in the market in general use the income to their household wellbeing (Spring, 2000).

Some studies reveal that African women are disadvantaged by economic and technological changes. Some indicators suggest that women, at least in the short-run, are becoming poorer (World Bank, 1979, quoted in Gebre Egziabher, 1990). The Protein-Calorie Advisory Group (PAG) (1979, quoted in Gebre Egziabher, 1990) claims that the economic and technological changes arising from the privatization of the traditional communal land have deprived women from land ownership while favoring men. As a consequence, even in those agricultural structures where women are responsible for cultivating crops to compensate for men's shift to cash crop production, decisions

surrounding land use are usually made by men, who can choose to take the most productive and easily accessible land for their cash crop while pushing food crop production to the margins and away from the home (World Bank, 1979, quoted in Gebre Egziabher, 1990). Since agricultural extension services focus on cash crops and technological inputs, the men are benefiting from such services, and even the extension services that are directed towards food production are provided for men (PAG, 1979, quoted in Gebre Egziabher, 1990). FAO (1998) indicates that “the assumption that training and information provided to men will be transferred to the women farmers in their households does not hold true” (p. 11). Women are provided only extension services that are related to their domestic roles. Hence, the extension service for women is usually concentrated on housekeeping and child care (UNDP, 1980, quoted in Gebre Egziabher, 1990). Moreover, women farmers are also affected by new technology, which undermines their role as selectors and diminishes their source of income (Worede, 2001).

Women in Ethiopia are responsible for the selection, improvement, and storage of seeds in the traditional farming system and have access to market the produce. In the introduction of new technologies, the men have access to technological innovation and to marketing the produce, which deprives women from using their abilities and traditional knowledge, and from benefiting from the outcome of their labor inputs. An interesting case was presented by Prugl (2004, p. 354) in a study in Germany, that illustrates how, since the early-20th century, women farmers have progressively lost control over their independent income gained from labor. The argument is presented as follows:

Caring for small farm animals and tending vegetable gardens, they marketed excess production and income from dairy, eggs, jams, fruits, and vegetables as their income. The rationalization of agriculture, and the associated construction of productive activities as public, eliminated these resources from women's income. Concerns about hygiene led to a 1930 law forbidding the marketing of milk that was processed in domestic quarters (i.e., kitchens) and prescribing basic equipment. The government put pressure on dairy farmers to join cooperatives and to process and market milk through the cooperatives... Although many farmwomen remained in charge of dairy cows, they were not represented in the cooperatives (male farm holders were) and the income from dairying no longer flowed through their hands (Kolbeck, 1990, pp. 156-159; Schmitt, 1997, p. 15). Increasingly, their labor was for the benefit of 'the family farm,' rationalized businesses managed by their husbands. Modernization and economies of scale entailed the centralization of power on the farm and technology accelerated this process. The more modern technologies entered work processes, the more production expanded, and the more men displaced women (van Deenen & Kossen-Knirim, 1981, p.71). The loss of flexibility in women's labor became a prerequisite for the rationalization of farming, and women lost control over the work processes, their own labor power, and their income.

Nevertheless, technological change should not be assumed to have a negative consequence for all small households. According to Buttell et al. (1990):

Sociologists should exercise caution, as technological change should not be assumed to have invariant consequences across time and space. Thus future sociological research on technological change in agriculture must be cognizant of ongoing changes in the structure of agriculture and how these changes affect the types of agricultural technologies that are employed, the processes of technological change, and their consequences. (p. 134)

In the current globalization era, under 'liberal environmentalism,' women are assuming power, opportunities, and resources as entrepreneurs in family farming by involving themselves in multifunctional agriculture (Prugl, p. 358-366).

Most of the available literature on gender and globalization focuses on the pros and cons of globalization on gender, where some researchers note that globalization has created problems for women (e.g., Due & Gladwin, 1991; Federici, 2004; Pande, 2000) and other authors claim that it has created both benefits and problems (e.g., Ampofo, et al., 2004) associating them with the traditional patriarchy or with neo-liberal globalization. Little information is available about the co-existence of both phenomena at the same time in traditional farming communities in the current era of globalization.

Gender inequality in agricultural production decision-making power is recognized at various levels including international, regional and national. Nevertheless, translating these provisions into action has not gone a great length at all levels. Despite formal recognition of women's equality, little has changed for rural women, particularly rural women in Sub-Saharan Africa, for whom gender relations are defined by local custom. Still, many opportunities are available at international, regional, and national levels that have not been sufficiently exploited to cause social change for women in

agriculture. Little information is available in the literature to indicate the need for using the existing systems for improving the limitations that come along with the opportunities from globalization. Instead of directly challenging globalization, a more realistic approach would be to work within the system to cause the envisaged social changes by taking advantage of opportunities stemming from globalization. This study tries to contribute in this regards, by presenting some of the available provisions from globalization at various levels.

Hence the objective of this study is to contribute to the understanding of gender role in traditional agricultural communities influenced by patriarchy and neo-liberal globalization and pinpoint some of the opportunities available in the process of globalization to make social changes in rural traditional farming communities.

Ethiopia is unique in being able to provide an opportunity for studying gender and globalization because of its ratification of a variety of international conventions, as well as the various interventions for gender equality at the national level. Ethiopia also has a well developed traditional culture and traditional societies that can give information about the influence of traditional culture on gender and globalization. Since the country is in the process of liberalizing its economy and increasing its international economic integration, further information can be gained about the influence of neo-liberal globalization on gender relations in farming communities.

Ethiopia has taken a number of important measures to formally acknowledge gender equality at the national level and has ratified a number of international conventions that have direct and indirect relevance to gender and globalization. Some of the measures deal with gender equality in its constitution, developing women's policy,

and establishing a ministry for women's affairs at the federal level with corresponding offices in each ministry, agency, and commission. Similar offices have been established at regional (state) levels with the structure extending into the district level. Ethiopia has signed and ratified a number of international conventions and declarations, and other legal instruments related to gender equality, such as the Convention on the Elimination of all forms of Discrimination Against Women (CEDAW), and has ratified almost all environmental treaties including biodiversity, desertification, and climate change conventions and other global treaties like the Millennium Development Goals. These agreements have direct and indirect relevance to gender, rural farming communities, and globalization. Ethiopia has developed national action programs for the implementations of these conventions and has incorporated the provisions of the Millennium Development Goals through its economic development policies like the PASDEP. Despite the many interventions, the lives of rural women have not changed, and the information that is currently coming from Ethiopia is pertinent for research studies on gender and globalization. A case study of Ethiopia could contribute significantly to the understanding of gender and globalization, and contribute to policy interventions for application to other regions of the world. As Stake (1995) argues, even though such single cases are not strong enough on their own to allow for generalizations, much knowledge can be gained from case studies in their general form. According to Stake, researchers "do that partly because they are familiar with other cases and they add this one in, thus making a slightly new group from which to generalize, a new opportunity to modify old generalization." (p. 85)

Ethiopian women farmers have made significant contributions to subsistence agricultural production, despite being unrecognized for their economic value and being denied rights to access and to control the production resources, a condition that earned them the title of the “poorest of the poor” (FDRE, 2000).

Background

Ethiopia has an agrarian society and agriculture is the major component of the economy that accounts for more than 50 percent of the GDP, 85 percent of the labor force, and 90 percent of the foreign exchange earnings, and supplies the bulk of the labor force for raw material inputs to the industry sector. Land is publicly owned in Ethiopia and the federal and regional governments administer on behalf of the people; the people have land use rights (FDRE, 2001; 2002). The land ownership policy (FDRE: 2001, p. 37) stipulates that:

since land belongs to the government, it cannot be sold, exchanged, or used as collateral... On the other hand, although land belongs to the government, the farmer may use it freely forever without any limit in time. He can transfer his rights on the land to his or her inheritors. For any reason, if the government takes the land, the farmer will be fully compensated for the invested capital and improvements made. In addition to this, the farmer may cultivate the land himself or may rent it out to others. He may use family labor or may hire any amount of labor at any time.

The population of Ethiopia was 72.4 million in 2004 with an annual growth rate of 2.75% and a total fertility rate of 5.9 births per woman (MoFED, 2006), with higher rates in rural areas (6.4) compared to urban areas (3.3) (FDRE, 2006). According to the last two censuses conducted in Ethiopia, the population of Ethiopian women is nearly equal to that of men (FDRE, 2006; FDRE, 2000; Ministry of Information, 2002).

From the total population of Ethiopia, the “enset culture complex” (Shack, 1963) constitutes 7 to 10 million people (Rahmato, 1996; Tsegaye, 2002), cultivate enset crop depending on whether enset is considered as a staple or as a co-staple food along with cereals, root, tuber crops, and vegetables (Bezuneh, 1996; Woldetensaye, 1997; Brandt et al., 1997; Tsegaye, 2002; Gebre-Mariam, 1996). At present, the number is estimated to rise to 14-15 million people. More than 10 related ethnic groups inhabit the main enset-growing regions, with diverse cultures, traditions, and agricultural systems (Tsegaye, 2002), and the Gurage-Ethio-Semitic-speaking people are one of the major ethnic groups that depends on enset as a staple food. More than 10 related ethnic groups inhabit the main enset-growing regions, with diverse cultures, traditions, and agricultural systems (Tsegaye, 2002), and the Gurage-Ethio-Semitic-speaking people are one of the major ethnic groups who depend on enset as a staple food. This group inhabits areas including the Gurageland and the semi-mountainous region between Lake Zeway, and the Omo and Awash Rivers (McCabe, 1996; Shack, 1963). The Gurage identify themselves as “people of enset” (Shack, 1966). . The other major ethnic groups that depend on enset as staple food include Sidama, Hadiya and Wolaita.

Enset is a large, tree-like plant that closely resembles the banana plant, and is sometimes called the “false banana” (Westphal, 1975). Unlike the banana, the seedy

leathery fruit of the enset are not edible, and hence, the main sources of food are the corms, pseudostems, and leaf stems (Brandt, 1996). Enset is a typical multipurpose crop of which every part of the plant is used, not only for food but also for a number of cultural applications (Shigeta, 1996). Enset acts as a cultural symbol for the people of enset regions as it is a unifying crop for the region. Its fiber has an excellent structure, and its strength is equivalent to the fiber of abaca, a world-class fiber crop (Brandt, 1996). The other major ethnic groups that depend on enset as staple food include Hadiya and Sidama.

In Ethiopia, four major farming systems are practiced: pastoralism, shifting cultivation, the seed farming complex, and the enset crop farming complex (Westphal, 1975). Of these, enset-based farming is one of the few sustainable indigenous farming systems that can support the densely populated highlands of south and south-western Ethiopia (Bezuneh, 1996; Tsegaye, 2002; Woldetensaye, 1997; Rahmato, 1996; Brandt et al., 1997; Shack, 1963; 1966). Livestock plays an important role in the enset-based farming system. Livestock are not only used as traction power, and sources of food and cash, but they play a critical role in maintaining soil fertility. The enset system, which requires considerable manure, can only operate by incorporating livestock in the system at each stage of the growing cycle (Lange, 1982, cited in Pankhurst, 1996). Because of this practice, Smeds (1955) classified these soils as man-made soils. Enset rapidly exhausts the soil unless it is periodically fertilized with animal dung (Kasfir, 1974; Samoff, 1980, cited in Hamer, 1987). Hence, enset has ecologically important functions in producing organic matter, creating a nutrient reservoir in the soil, controlling erosion, and contributing to the stability and continuation of the farming system (Tesfaye, 1996,

cited in Tsegaye, 2002; Woldetensaye, 1997). However, because of the decrease in grazing land due to the expansion of farming, the farmers are decreasing the number of livestock in the area. This has implication on availability of manure for fertilizing enset and as a result to the production of enset. Nevertheless, the agricultural officials of the area and extension workers are in favor of decreasing the number of livestock and increasing the quality of feed and livestock. Currently, the focus of the agricultural extension program is training of farmers on the improvement of the breed, health and feed quality.

Since enset can be harvested and consumed before it is fully mature, cultivators can adjust to environmental hazards or food shortages (Rahmato, 1996). Because of this quality of enset culture, the enset regions have not experienced crises of food shortage or the associated famines that are seen in other regions of the country (Pankhurst, 1968; Smeds, 1955; Rahmato, 1996). According to farmers, “enset is the enemy of hunger, and human and livestock life is impossible without it.” (Tsegaye, 2002).

Gender roles are of critical importance in enset production; a clear gender division of labor is observed in men’s and women’s practices. Men do the plowing, cultivation, selection of enset landraces for planting, propagation of enset seedlings, weeding and uprooting the enset for processing and men participate in applying manure but the main players in manuring are the women. Landraces are crop cultivars developed by male and female farmers over many generations of selection that do not apply formal plant breeding inputs, and therefore, are considered as products of on-farm conservation. The very nature of enset cultivation, as a main crop in home gardens has meant that women have a very close relationship with enset in their day to day life since they spend

most of their time at home, and hence have tremendous knowledge of the various landraces despite the fact that the selection of enset landraces for planting is done by men. Men have knowledge of their enset crop landraces and use their knowledge in selecting landraces for food, fiber and medicine as well as the suitability of the soil. Plowing is a very tiresome work and the soil is plowed relatively very deep by using local farm tool called Wolet and the cultivation is done yearly around each enset plant by using local farm tool called Kofare. Women normally do not participate on plowing and cultivation and it can be said it is men's work.

The tasks involved with harvesting and processing are done by women; there is a clear gender division in enset production practices. Enset processing is recognized as a 'women's job'. In general, men do not participate in enset processing since according to the taboos of the culture, men are not permitted to enter the enset processing ground or to participate in enset decorticating (removing the fiber from the leaf sheaths by raising the leg and pressing the sheath by heels on the scrapping board in order to secure the sheath from falling and hold the enset part and do the scrapping by scrapping wooden tool called 'sibisa' in the traditional method of enset processing). In general women provide about 80% of the labor required for enset production and processing whereas men provide only about 20%; that shows the large amount of time required for enset processing compared to the time required for production (Dougherty, n.d). Tables (3-1, 2-3& 3-3) below indicates the low amount of time required for production compared to the time required for enset crop processing (p. 21-22).

Table 3-1. Gender division of enset production labor.

Operation	Women		Men		Total	
	hrs	%	hrs	%	hrs	%
Prepare land for propagation	1.0	5.6	2.0	11.1	3.0	16.6
Weed unsprouted corm	-		1.0	5.6	1.0	5.6
Weed sprouted corm	-		1.0	5.6	1.0	5.6
Prepare land for sucker transplanting	0.5	2.8	2.0	11.1	2.5	13.9
Transplant suckers	-		1.0	5.6	1.0	5.6
Do first transplanted sucker weeding/manuring	0.5	2.8	1.0	5.6	1.5	8.3
Do second transplanted-sucker weeding/manuring	0.5	2.8	1.0	5.6	1.5	8.3
Do third transplanted-sucker weeding/manuring	0.5	2.8	1.0	5.6	1.5	8.3
Do fourth transplanted-sucker weeding /manuring	0.5	2.8	1.0	5.6	1.5	8.3
Do thinning/transplanting	-		1.0	5.6	1.0	5.6
Do after-thinning weeding/manuring	0.5	2.8	1.0	5.6	1.5	8.3
Total	4.0	22.2	14.0	77.8	18	100

Table 3-2 Gender division of enset processing labor

Operation	Women		Men		Total	
	hrs	%	hrs	%	hrs	%
Process pseudostem and corm	240	65.9	32	8.8	272	74.7
Prepare fermentation starter	4	1.1	-		4	1.1
Add fermentation starter to processed pseudostem and corm	8	2.2	8	2.2	16	4.4
Do first mixing	8	2.2	8	2.2	16	4.4
Do second mixing	8	2.2	8	2.2	16	4.4
Do third mixing	8	2.2	-		8	2.2
Do fourth mixing	16	4.4	-		16	4.4
Place in final pit	8	2.2	8	2.2	16	4.4
Total	300	82.4	64	17.6	364	100

Adapted from Dougherty, (n.d)

Table 3-3 Gender division of enset production and processing labor

Operation	Women		Men		Total	
	hrs	%	hrs	%	hrs	%
Enset production	4	1.1	14	3.7	18	4.7
Enset processing	300	78.5	64	16.7	364	95.3
Total	304	79.6	78	20.4	382	100.0

Adapted from Dougherty, (n.d)

Furthermore, since seasonal labor migration is common from the enset growing areas, particularly the highlands, in households where males migrate seasonally, the women are responsible for managing the farming, as well as their domestic responsibilities. Men usually migrate to the cities because of a shortage of land. They claim that if they have sufficient land to make a living they normally do not migrate to the cities. Men migrate to the cities with agreements from the women. In the highlands, the scarcity of farmland is caused by the overpopulation, and the degradation of soil fertility is due to its overuse and exposure of the land to soil erosion because of the rolling hills and deep gorges.

Briefly, enset propagation and processing is as follows: Enset is vegetatively (reproduced by asexual processes) propagated from the corm of an immature plant. In October, the central part of the corm is scraped and the growing bud is removed to encourage growth of multiple shoots. The hollow planting material is filled with sand or soil and left to dry under the sun. This is planted in a well-prepared hole and covered with soil. After about one month, 50 to 60 shoots will appear, and these seedlings will be

planted. Growing plants are transplanted several times and the enset plant is given a new name each year during its development from sucker to mature plant.

In enset processing, a pit is dug by the men before the date for enset processing, of a size that depends on the amount of enset to be processed and fermented. The women cover the pit with broad fresh enset leaves and dried stem parts to protect the product from soil. The men cut the top leaves of the enset plants selected to be processed and peel down the lower part of the pseudostem above the corm, locally called the 'nichie'. The men dig up the surrounding area and separate the pseudostem from the corm; and then clean and transport the plants to the processing ground, carrying them on two wooden sticks (called *yewuta inchet*). A wooden board is placed in an inclined position on one of the enset plants. A woman will cover herself with papers or plastic covering, raise her leg, and press the sheath by her heels on the scrapping board, to secure the sheath from falling, and hold the enset part while scrapping it with a wooden tool (called a *sibisa*). The white part is collected and used without entering the fermentation process. This part of the *kotcho* (the main food product of enset processing, a bulk form of the fermented starch derived from a mixture of scraped leaf sheaths and pulverized enset corm) is called *aftentenat*, which means that it can be ready in a short time. The corm is crushed and pulverized directly in the pit. The rounded part of the corm that is easily identified, is boiled and ready to be eaten (locally, it is called *amicho*). The corms of some of the harvested plants are left *in situ* to be prepared as seasoning for *kotcho* in the fermentation. The pulverized corm and the scrapped product are mixed and kept in the pit for fermentation, being covered by leaves and stones. The enset scrapping process separates the fleshy part of the pseudostem from the fiber while allowing the juice to flow down in

the small pit lined with enset leaves. After a short period, the juicy sediments (known as *bullā*) is squeezed by a woman using the enset fiber. The product may be used directly as it is free from fiber, or may be kept for years in the main pit. The prepared seasoning is added into the pit after one month and, depending on the need of the family, can be reprocessed within 3-5 months, and kept in the pit until used.

Marketing is an important issue in the gender division of labor in the enset crop-based agricultural communities. Men in general sell cash crops and keep cash from the sales of cash crops. Furthermore, they sell enset seedlings and mature enset plants and control the money. The men often use the money to cover expenses such as labor for plowing and cultivation for enset production, festivals, and farm tools and for their own needs such as spending the money with their friends. Women generally, sell a small amount of kotcho, bulla and amicho and byproducts of enset to obtain money for household consumables such as kerosene and salt. The division of labor observed in the various activities is influenced by the existing customary law in the communities.

Gender Issues at Policy and Institutional Levels and the Prevalence of Customary Law in Ethiopia

In Ethiopia, gender has been considered at the constitutional, policy and, to some extent, institutional levels. The constitution of Ethiopia includes important provisions that recognize women's equality with men in all spheres of life. The various articles included in the Proclamation of the 1995 Constitution of Ethiopia have been the legal basis for women's equality with men in political, social, and economic spheres. Article 35 contains basic principles regarding women's rights to equality with their male counterparts in

every aspect of life. One of these principles recognizes women's rights to affirmative measures in order to lift them to equal level ground with men so that they can compete in equal basis in political, social and economic sphere in public and private institutions. The basis of this intervention is women's underprivileged position in development endeavors. As Federal Democratic Republic of Ethiopia (2000, p. 1) has put it:

Women in Ethiopia, like their fellow sisters in other developing countries, have been victims of gender-based oppression and exploitation in all spheres of life. Ethiopian women, whose population has always been nearly equal to that of men, as indicated in the two censuses conducted so far, have been overtly and covertly deprived of their social, economic and political rights. The subjugation and subordination of women have been solidified by the discriminatory laws of the country as well as the cultural and traditional practices of the society. Due to their low status in society, Ethiopian women have always been victims of all sorts of violence. They have also been vulnerable to human made and natural calamities as well as their consequential effects.

The other important provision in Article 35 is the rights of women to be consulted in the formulation of national policies, designing and execution of projects particularly on those projects that affects the interests of women. Furthermore, important provision includes women and men use rights for administering and for the transfer of land, which are important components of the constitution, with regards to gender (Ethiopian Constitution, 1995). Moreover, the National Policy on Ethiopian Women has been formulated in 1993 with one of its objectives to enable women participate in the political, social and economic spheres in equal basis with men. The policy emphasis that "gender

issues concern not only women but society at large and that women's problems cannot be solved by women alone, but by the coordinated efforts of the society, the government and women" (TGE 1993). To enforce this policy other relevant policies including population, education, health, social, cultural and environmental have incorporated gender issues (Federal Democratic Republic of Ethiopia, 2000). To coordinate the implementation of these policies, Women's Affairs Offices were established at federal and regional levels. Recently, the Women's Affairs Office was upgraded to operate at the ministerial level. Ethiopia has also signed and ratified a number of international conventions, declarations, and legal instruments related to gender equality. Some of these include, Universal Declaration of Human Rights, African Charter on Human and Peoples Rights, Convention on the Elimination of all forms of Discrimination Against Women (CEDAW), Declaration on the Elimination of Violence Against Women (DEVAW), Convention on the Rights of the Child (CRC). Further more has adopted the United Nations Conference on Environment and Development (UNCED) of 1992 in Rio de Janeiro; World Conference on Human Rights, in Vienna, (1993); the International Conference on Population and Development (ICPO), in Cairo; (1994); the Fifth African Regional Conference on Women, Dakar, (1994); the World Summit on Social Development, in Copenhagen, (1995); and the Fourth World Conference on Women (FWCW); Action for Equality, Development and Peace, in Beijing, (1995) (Federal Democratic Republic of Ethiopia (2000, p. 2). All these interventions at national, regional and international levels are basis for the implementation of gender equality in the country.

Key Findings

Gender Role Shift

It has been observed in the study that a woman taking over the traditional men's role in agricultural production. A female respondent in the lowland in a male-headed household manages the agricultural production (and enset production) while the man works outside the home. She is one of the model farmers in the community. This woman is one of the farmers who got opportunities of training organized by the initiated partnership arrangement between government agricultural offices, international NGO and PA. Thus, "roles should not be assumed: there may be some changes or adaptation at a local level and the assumed role may not necessarily fit." (Flinton & Tedla, 2007, p. 4) as has been argued by one of the female respondents:

In the enset crop garden since my husband has another job I am the one who look for the labor for plowing and I planted myself the seedlings including enset as well as other fruit trees since I have training on that. I do the weeding and manuring and any other activity since my husband's focus is on his job. Since I am the one who is following the garden I am the one who decide what landrace to plant and when to harvest the enset crop plants. The processing is done by hiring labor and me. Since enset is just starting in the low land there is no experience of working in collaboration in enset processing. Furthermore, we use improved enset processing tool that has been provided to us by...(International NGO). Those working in the processing are those who used to live in the highlands before and

brought the experiences from the highlands.... at present we can see in every household enset planted though it is in young stages.

Persistence of Customary Practices

Despite the current policy provision in Ethiopia for gender equality in many aspects of day to day life and some achievements are gained in gender equality, customary practices still persist. Politics in the rural Ethiopian community are still male-dominated. Only a small number of women are in leadership positions in the PA in the rural areas. In kebele cabinet there are seven members who include representatives in agriculture and rural development, education, health, information and communication, public organization, justice administration and the main administrator position. From these members it is only the health subdivision represented by a woman. As one of the PA leaders stated:

the representation of women is not encouraging. From the seven members of the cabinet it is only in health extension women have been representative. It is important women are representing the health office. This is because at present there is a high birth rate and the number of food secured people is decreasing. The health issue starts from home. It could be related to food preparation, child caring and so the woman representing the health office would be very beneficial. ...The woman representing the health extension has been supported by the kebele to upgrade her education and still she is backed by the kebele in doing her

assignment. Other than the hindrance of lack of capacity it is not cultural influence that limited the number of women in kebele administration.

Nevertheless, in the history of Ethiopian women, their initiation into such involvement has been a good step forward. Only recently, however, is their need for involvement in community politics being recognized. The leaders of the PAs in the study areas claim that the limited involvement of women in PAs is due to their lack of the minimum educational requirement for leading the Kebele PA offices. One of the Kebele PA leaders stated:

We could not involve many of the women at this level because we could not find educated women who would be able to meet the requirement for education to lead the Kebele offices. It is only currently that girls are sent to school. Hence, their limited involvement is due to capacity problem; otherwise the possibilities are open for them.

Rural Ethiopian women have little authority in decision-making at family or community levels. Because for instance, women are not granted control over the land in male-headed household or inheritance from a family they are denied the decision-making power needed for the important aspects of their family agricultural production. Furthermore, the “head of the household” ideology in the agricultural extension system in Ethiopia has caused men to be targeted for extension services that usually focus on cash crops; the food crops are left for the women to manage in the traditional agricultural system. In all PAs of the study the women in the male-headed households did not participate in the agricultural extension program. Although some minor activities are designed for women, they are insignificant and rarely mentioned; they participate in some

programs which can be carried out in their vicinity. These often include the production of chickens and horticultural crops. The main purpose of the programs is to serve as income sources. In general, in the study area, the agricultural extension program is “exclusively a male preserve”. Nevertheless, women in female-headed households, and women whose husbands have migrated, can participate in the extension program. Those who participate in the program must rely on their sons, or practice crop sharing as part of the production process. Those women who do not have land for farming, cannot participate in the program, and those who only have a small land would only be able to use it for enset production.

The low involvement of women in decision-making has resulted in their needs and interests being overlooked in the planning and implementation of interventions, as well as their accumulated knowledge and experiences being underutilized. This was reflected in the agricultural extension program practiced in the study areas. Nevertheless, once a certificate of right is provided to the land user, and farmers register their land holdings to protect their user rights, some women take action if they feel the amount of enset seedlings is not sufficient for their family consumption. In the case of grain crop farming, men decide which crop to be planted. In the midland and lowland areas, the major food sources are maize, followed by wheat. *Tef* is a high value crop, which is produced mainly for the market, and which is sold in the market by the men who control the income. For the processed enset grown in the highland, the men do not focus on food crops for income. If extra *kotcho* is available for the market, the women take it to be sold and decide how to spend the proceeds.

Even though women in the male-headed households are not involved in the extension program, they participate in the decision-making process for being involved, or not involved, in the agricultural extension program. If, for example, the man does not involve the woman in the decisions for taking the loan, then she may not cooperate in the repayments. This new trend has developed among women after issuing land user right certificate; when sharing the decision-making power in relation to resources such as land, finance, enset plants, and other domestic resources.

Furthermore, women still experience a lack of land inheritance because of the dominant customs in the area. A woman only has a chance of inheriting land from her parents if the family has no male children. Some rare cases are known; however, where an elder daughter inherits the land because of her seniority and leaves the land for her brothers when she is married and receives compensation. Women who are in such situations, and recognize that legal support is available to them, still tend to avoid making changes because of the overall influence of the customary practice. For example, a female farmer who was interviewed stated:

We have received a certificate for land holding recently. In the book, my husband, my son, and myself have been registered. My daughters are not included. My daughters can get their share wherever they are when they are married. They can not claim to have a share here. We have to be concerned about our son because he has no where to go. I have responsibility for him. He is the one at present working for me and who will be supporting me when I get older. I do not want to go to my daughter's house and see the mercy of my son-in-law. That is not a preference in our culture. It is the son's house – you feel you are part of the family. What is

expected from the daughters is their visits and giving some presents to their parents. A son is respected (and might) live in his father's house even if he is a vagabond after he has left his parents house. However, if the daughter has no place to go and she is helpless, she can live in her parent's house after she has been married.

Furthermore, some men try to retain the patrilineal inheritance they have been entitled by the customary practices. Nevertheless, there are cases where some women try to change the situation though the changes are gradual. A situation was observed in one of the PAs where a woman who had been holding her parents land for a long time was denied by her brother from inheriting the land. Later, she obtained the legal rights by her own efforts and by the supports of some community elders who support the formal legal instruments that are already in place.

In this study, a complementary gender division of labor is seen in enset-based agriculture despite the lack of recognition of women's contribution to production. In the highlands, in male-headed households, the men who are involved with enset production are mainly involved in plowing, cultivation, selection of enset landraces for planting, and propagation of enset seedlings. Manuring is a shared activity, where the women have the major share though it is not recognized. This invisibility of women's contribution in manuring is associated with the communities' perception of women's role solely in the domestic sphere. Women carry the manure to the garden and are sometimes supported by men and children, while the men spread the manure in the garden.

In crop farming, women in the highland generally do not participate except in preparing food for the laborers. The involvement of women in enset production is an extension of their domestic duties and since enset is a home garden, its production can be part of other domestic activities such as housework and child care and hence, their contribution in enset production is invisible.

The tasks involved with harvesting and processing are done by women; there is a clear gender division in enset production practices. Men have a general involvement in enset processing in digging pits for storing processed enset, uprooting enset plants for processing, and carrying plants to the processing ground. In the highland, however, variations are seen where men may be involved in pulverizing parts of the enset flowering part (locally called *zebe*) since the task is difficult for some women to do. As has been indicated in the various activities gender relation in the traditional farming communities such as enset crop-based agricultural communities their gender relations can be explained by patriarch-invisibility framework.

Conflicting Ideas on Male Seasonal Labor Migration

Male seasonal migration on one hand for some is advantageous to women and a positive impact because of inflow of money from the outside. On the other hand, for others male seasonal migration has a general negative impact on the lives of women and on onset-agriculture development and hence to the household food security. According to one of the female respondents in a female-headed household:

When we consider the onset garden in those families where the males have migrated to the city, we can see their onset being relatively in poorer condition than those men residing in the rural areas. There are some men who send money and others who do not send. It is not easy for those women to handle the onset garden even if the money is sent. There is advance payment for the laborers to work in different activities of onset work. Some of the laborers may not show up to work on the planned date for plowing or cultivating after taking the advance money. This also could happen in the men's presence. But they can report this to the concerned bodies and get their money easily. If the woman reports this to the concerned body in the community she may get the money she spent on the preparation of food and the advance payment. But this will create a problem for the future communication she will have with the community. The laborers may even refuse to work for her because of the reputation she has in reporting such cases to the concerned people. They will say she could have ignored it. It matters when it is a woman while when it is done by men it is taken as it is normal

Nevertheless, some interviewees indicated that the women can manage if the men send the money needed for the preparation of food and drinks at the time of plowing,

cultivation, and processing and purchase of livestock and agricultural inputs for some households. Hence, labor migration does not necessarily have a negative impact on the production of enset crop and, in fact, may have a positive impact because of the inflow of money from the outside. Still, some respondents maintain that the men are not earning enough money and are unable to send the money that is needed for managing the enset crop. This creates serious difficulties for the women. The following excerpt from a female research participant in male migrated household illustrates the effects of neo-liberalism and globalization on enset crop production:

My husband used to send me money from Addis Ababa. But now let alone to support me he could not even support himself. He used to be engaged in sewing military clothing. Since at present ready-mades are coming from outside, he has lost his job and is sewing small things that is only helping him to survive

The main concern about the male migration is that the women are not in a position to keep their enset crop gardens in good condition because of their workload and family duties. They are expected to do the same work as was done by the men, in addition to their household tasks. In addition, the following interview excerpt from male agricultural extension worker confirms the trend of feminization of agriculture in the era of neo-liberalization and globalization:

Our garden is affected because of my husband migration to the city. The garden cannot be in good condition as it could have been when the man is around the house because those gardens where the man is around could be followed daily. In addition my husband's migration has also added workload on me. I do weeding in the enset crop garden. Those women where the man is around do not weed in the enset crop garden. I do the manuring myself... Sometimes he may not be able to send money so that I have to look for other sources for the preparation of food required and labor payment. Some migrated men may not have work that could enable them to acquire money for their own living in the city and send money to their families in the rural areas.

Discussion

When discussing gender role and neo-liberal globalization of agriculture, the main focus needs to be on the prevailing changes on gender role, the influence of male migration that is associated with the current feminization of agriculture, and whether social changes are occurring or not through policy changes that are influenced by neo-liberal globalization of agriculture. Gender roles defined by IDRC (1998, p. 5) as indicated before state that:

Gender roles are due to social factors that influence or allocate activities, responsibilities, and decision-making authority to groups of people. Gender roles change, often spontaneously and sometimes quickly, as the underlying social, economic and technological conditions change. Social factors which underlie and sometimes reinforce gender differences include religious practices, ethnic or

cultural attitudes, class or caste, the formal legal system, and institutional arrangements (IDRC, 1998, P.5)

The entire core elements included in the definition of gender roles above has been observed in the case of gender shift in the study area. The gender shift observed when women obtained opportunities in development is a good sign of how gender roles change when particularly the prevailing social and technological condition changes. Furthermore, the changes in gender role were enhanced by the change of government policy that created the involvement of non-state actors like the international NGOs in the decision-making process. This is what has been expressed in the emerging agricultural governance in the era of neo-liberal globalization. International NGOs have opportunities of contributing technical as well as financial to a particular development activity.

Seasonal migration of men is an important factor in influencing the division of labor in agriculture within rural communities. A substantial number of people are migrating to the cities, from every corner of the world and for a variety of reasons, though little empirical data is available on the trend. According to a survey conducted in Bolivia, 9.0 percent of the Bolivian population (approximately 722,621 persons) moved within a five-year period, with about 243,301 people being rural-to-urban migrants (Andersen, 2002). Male seasonal migration had a general impact on the lives of women and on enset-agricultural production. As has been observed in the study, there were positive and negative aspects of seasonal migration to women's life and enset production and as a result to food security of enset growing communities.

Another important issue in gender and neo-liberal globalization of agriculture is whether the changes in policies that are influenced by neo-liberal globalization of

agriculture have made social changes in the rural traditional agricultural communities. As indicated earlier, the very many policy and legal instruments available at national, regional and international levels have not made the envisaged positive social changes. It shows some crucial things are missing—partnership among government, development partners/NGOs and farming communities through the process of agricultural governance.

Conclusions

Gender roles in inset crop-based agricultural communities is influenced by both patriarchy and neo-liberal globalization of agriculture. The policies and legal instruments in place at national, regional and international levels have not made the intended social changes in respect to gender roles in traditional farming communities. Nevertheless, there are many opportunities to change the existing situations. One of these opportunities is to scale-up the initiated mechanism for development through partnership among government, development partners/NGOs and farming communities.

Recommendations

The primary measure to be taken in the area of gender equality in general and in empowering women in particular is to change society's attitudes towards the stereotyping of women's and men's agricultural activities. Some of the interventions for attitude change involve creating awareness through the media, religious places (in religious holidays and other appropriate occasions as it is being done on HIV-AIDS), etc. As indicated by Ruxton (2004:4) "unless men's practices, attitudes, and relations change,

efforts to promote equality will face an uphill struggle". Furthermore, significant number of women have to be involved in policy formulating positions in order to be able attain decision-making power that affect women's lives. The involvement of women in such position as the government cabinet at federal, regional, zonal, woreda (district), and farmers' association levels helps to support women in realizing their land use and land inheritance rights, by gaining decision-making power at the policy level. The involvement of women in activities that were not traditionally ascribed as women's role might increase the work burden of women by giving them additional roles. Other family members must therefore be sensitized to sharing the domestic activities that are usually done by women. One of the facilitating mechanisms in the implementations of the above suggested measures is women's professional organizations. Therefore, more promoting and supporting such as the Ethiopian Association of Women Leaders in Agriculture and Environment (EAWLEA), Chapters of the Sister Association of African Women Leaders in Agriculture and Environment (AWLAE) is very useful. The EAWLEA was established with its objectives "to become advocates for female farmers with the view to contribute to and influence policies and practices to bring about equitable, environmental-friendly and sustainable agricultural development in Ethiopia." Overall, strengthening the initiated partnership arrangement facilitated by the influence of neo-liberal globalization of agriculture to a larger scale and to use the existing provisions as Millennium Development Goals can help improve the implementation of the policies in place on gender equality in Ethiopia.

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Chapter 4: Linkages between Traditional Ecological Knowledge, Culture and Agricultural Globalization and their Influence on Enset Crop-based Agricultural Communities in Ethiopia

Introduction

Neo-liberal globalization manifests itself in unintended ways, affecting important aspects of social structure, including knowledge systems. The three grand social phenomena: traditional ecological knowledge (TEK), culture, and globalization, in terms of their linkages and the threat of globalization to TEK and culture are areas of concern for social and environmental changes in rural communities, especially in matters of food security and biodiversity. Globalization has been contextualized by various scholars along different angles, which makes it difficult to attain a unified definition. The political economy of globalization is used as analytical tool for this study that comprises the expansion of markets; the emergence of ‘global politics’ that challenges the role of states; and the influence of the process in affecting people’s culture and values producing a ‘global culture’ but simultaneously the existence of counter reactions to retain the local culture and values (Woods, 2000).

Globalization, as a multifaceted process, has created a ‘knowledge society’ that is based on information and the ‘expert system’ (Jary & Jary, 2000). In contrast, a rich and time-tested knowledge, based on rural communities, is referred to as TEK. Authors, such as Finger (2004, quoted in Goldin & Reinert, 2007, p.209) call this “poor people’s knowledge” and suggest that it is often undocumented and not a part of the ‘knowledge

society' achieved through the process of globalization. Instead, TEK is passed within the rural communities from generation to generation through practice and observation. The processes of transmission as well as the social uses of TEK vary from society to society (Ruddle, 1993). The major contributions of this knowledge-base is often mentioned in the literature (e.g., Turner et al., 2000; Worede, 2001) in such areas as local resources and biodiversity management, or in association with sustainable living and food security. Other terms that are in common use include indigenous knowledge and local knowledge, which are used interchangeably.

Ethiopian subsistence farmers heavily rely on TEK and practices for their food production system. They have developed diverse landraces and cropping practices adapted to the local climate, and soil, social, and cultural situations. Landraces are crop cultivars developed by farmers over many generations of plant selection without applying formal plant breeding inputs, thus making them products of on-farm conservation. These farmers often grow a wide range of crops and varieties to adjust to new and changing conditions including market demands and cultural practices (Kebebew, 1997; Worede, 2001). They also use a mixture of different crops as a buffer against environmental stresses, particularly in marginal areas, by selecting for modified genetic characteristics of crops that will lead to community genetic diversity and conservation (Kebebew, 1997). Understanding and making use of traditional farmers' knowledge, along with the genetic diversity conservation, is crucial for developing sustainable agricultural production systems (Ketema, 1997). Nevertheless, exotic technology adoption is a major strategy for agricultural development in Ethiopia, over the short- and medium-term, because of the country's limited research capacity (Federal Democratic Republic of Ethiopia, 2001).

Such approaches have been adopted for many years in Ethiopia, especially in the agricultural extension programs. Technology transfer from the outside has been also used to assist the traditional agricultural systems which are believed to be incapable of boosting agricultural productivity to feed the growing population (Worede, 2001). The government development policies, particularly the agricultural policy focus on traditional agricultural system, have been negligible. The existing level of plant diversity is being subjected to serious genetic erosion and the indigenous knowledge about domesticated/cultivated and wild species is being lost rapidly. Most researchers recognize the many gaps in knowledge for genetic and social dynamics in the traditional agro-ecosystems, and therefore, call for extensive research and the gathering of first-hand community experience from across the country (Kebebew, 1997; Worede, 2001).

This paper highlights the linkages between the three social phenomena: globalization, culture, and TEK, along with the threats of globalization to TEK and traditional culture. The paper draws on a case study of the Gurage enset crop-based agricultural communities. In the following section, I outline the research method followed. In the second section I present a literature review on traditional ecological knowledge, culture, and globalization. In the subsequent section, a general background is given and an analysis of the key findings in relation to TEK, culture, and globalization for the enset crop-based agricultural communities is presented. In the final section, the discussion, conclusions, and recommendations are presented.

Research Methods

This study includes observation and semi-structured interviews, document analysis, and general field work. A reconnaissance visit was made to the study area to inform the people of the proposed study and also to acquaint the researcher with the village and the communities.

A total of 65 people were interviewed. The interviewees including men and women were selected based on their reputation for being knowledgeable in the socio-economy of the communities. Interview guide were used to avoid losing focus and to ensure that all relevant questions were asked. Questions were both closed and open-ended. All of the collected data was transcribed and entered into qualitative analysis using the NVivo software program for thematic coding and analysis.

Traditional Ecological Knowledge (TEK), Culture, and Globalization

Traditional ecological knowledge (TEK), as a concept and its linkages with culture has been well documented (e.g., Berkes, 1993; 1999). As indicated by Armstrong et al. (2007) “TEK is an ancient source of knowledge that has stood the test of time. Indigenous knowledge is acquired through observation and practical experiences of indigenous people.” As Warren et al. (1995, quoted in Abbute, 2005, p.73) point out, “It is a local knowledge unique to a given culture or society” and “a user-derived information base of a society that provides a foundation for indigenous innovation.” (Abbute, 2005, p.73) As has been point out by Briggs (2005, p.99), “For some post-development writers, indigenous knowledge represents a possible alternative for progress

among the world's rural poor." However, while recognizing the use of indigenous knowledge particularly for food security, as stated by Jewitt (2002 quoted in Briggs, 2005, p.108), "there need to be considerable caution in exercising calls for a return to traditional agricultural practices based on indigenous knowledge". Nevertheless, whether indigenous knowledge contributes to development is highly contested. Some writers (e.g. Briggs, 2005) argue that since this knowledge is developed within the place/space, it is too place-specific to have development value beyond these particular locations. Furthermore, Agrawal (1995) stresses that indigenous knowledge must be tested and pass a scientific criteria before being recognized as usable knowledge. The above arguments further raise the need for relevant policies that can facilitate the integration of the two knowledge systems particularly in current era of neo-liberal globalization. A case is presented below (Box 1) that indicates the strategy for science and technology policy relevant to agricultural knowledge and innovation processes adapted from Asenso-Okyere et al., (2008, p.19).

Box 4-1. IAASTD Science and Technology Policy

The IAASTD initiative has a number of strategies for S&T policy relevant to agricultural knowledge and innovation processes:

- Policies to support more and better investments in developing-country agriculture are indispensable.
- S&T must play a key role for productivity growth, competitiveness, and sustainable livelihoods, which require innovative approaches involving diverse actors; this can be achieved through an appropriate R&D investment policy.
- Linking formal and informal knowledge is an important factor in agricultural development.
- Technology development needs to be embedded in a broader development and innovation systems context through the right policies.

Contrasting views have been given in regards to the relation between TEK and globalization. On one hand, TEK is considered as a foundation for additional information that enhances scientific ecological knowledge (SEK) – a knowledge base that has developed in the process of globalization or as has been stated by Brodt (2001, p.101),

Global knowledge', 'international science', and 'industrial science' ...refer to knowledge produced by professional scientists usually at universities, research labs, and so on, whose sole occupation is the production and dissemination of knowledge and who, in connection with this endeavor, participate in a global culture of scientific communication.

On the other hand, globalization in terms of its influence in altering the lives of people is taken as a threat to TEK and to the cultures of indigenous communities.

The integration of the two knowledge systems, SEK and TEK, is difficult because of their epistemological foundation (Armstrong et al., 2007). Nevertheless, Armstrong et al. (2007) also point to the experiences of the task force created in 2005 by the International Union of Forest Research Organizations (IUFRO), for the purpose of studying the interrelationships of TEK and SEK in sustainable forest management. The recognition of TEK in its contributions to the conservation of biodiversity and ecological processes has greatly enhanced the recent growing interest in the use of TEK (Berkes, et al., 2000, quoted in Watson, et al., 2003), particularly by scientists and environmentalists (Michie, 1999). The integration of TEK with SEK is a way to preserve the knowledge of communities by using and valuing the knowledge for intellectual purposes (Armstrong et al., 2007). According to Watson et al., (2003) TEK is “protecting traditional lifestyles in a global world.” In any case, issues of ownership and control over the use of TEK are areas of concern. The topics are hotly debated among social scientists (e.g. Harry, 2001) and other concerned bodies, with regards to the effects of biotechnology on the exploitation of indigenous people. Many are concerned about bio-piracy through monopolistic control of genetic resources through patents, and about gaining ownership over resources that have nurtured the lives of indigenous people for centuries. According to IFG (2007), global rules have facilitated the privatization and commercialization of these resources. The integration of SEK with TEK is supposed to require the formation of equitable partnerships with indigenous communities (Armstrong et al., 2007); though the reality is that indigenous people are not involved as equal participants or partners in research (Harry, 2001).

Some concern has also been expressed that TEK is being threatened by the globalization of culture. The loss of identity and culture (Michie, 1999) and traditional values (Watson et al., 2003) in the modern world has been a concern for indigenous people, where economic values are associated with Western values and where local access is in relation to the Western lifestyle (Robards & Alessa, 2004). Technology development has played a great role in creating a global culture, especially with the Internet, fax machines, and satellite and cable TV that break cultural boundaries (Global Policy Forum, 2007). As Rothkop (1997) notes, “We must understand the profound importance and nature of the emerging infosphere – and its potential as a giant organic culture processor, democratic empowerer, universal connector, and ultimate communicator,” and the knowledge acquired from these technologies. Frechette (2000, p.4) points to the technologies as “the new global asset, the very premise of progress.”

The abundance of global brands like McDonalds and Coke undermines local culture and the consumption of traditional or local products (Goldin & Reinert, 2007). Goldin and Reinert (2007, p.209) emphasize that these are “seen as a symbol of US or ‘Western’ economic and cultural domination, (and) they have become rallying points for antiglobalization protests.” The culture of modern societies is a consumer culture that is oriented towards marketing and consumption of goods and services (Jary & Jary, 2000). Anderson (2000, p.13, quoted in (Robards & Alessa, 2004, p.421) indicated that “full acceptance of market-based economies and access to technology... is a “tempting forbidden fruit” that can insidiously reconstitute the conditions of human existence”. As pointed out by McBeath (2001, quoted in Robards & Alessa, p.2004, p.421) “Continuing to incorporate global cultural values comes at the potential cost of progressive

assimilation and dependence on the dominant society's institutional values.”

Nevertheless, opposing views question the beneficial societal effects of globalization on homogenizing culture. Some claim that the process of globalization will lead to a stripping away of identity and create a uniform world, while others argue that the decline in cultural distinctions is probably a measure of the progress of civilization. In particular, this may be facilitated through communication systems and by the removal of cultural barriers and negative dimensions of culture, and with the integration, creating a stable and better world for the society (Rothkop, 1997).

Critics of globalization, for example, Groenfeldt (2003), take globalization as a threat to indigenous values. Groenfeldt (2003) supports his argument with three points:

First, the human rights argument that people have the right to hold onto their values and we should respect that; second, the cultural diversity argument that diversity values are enriching to the overall human experience; and third, indigenous values contain truths that have been forgotten or overlooked in our own culture.

According to Sen. (1999, cited in Goldin & Reinert, 2007, p.209), “Equity in cultural as well as economic opportunities can be proudly important in a globalizing world.”

In contrast, several anti-globalization movements have sought an alternative to globalization. The main concerns have been for the growing gap between the poor and the rich, as well as the rejection of mainstream culture of consumption and the overall physical (i.e., land being occupied by mechanized agriculture) and cultural destruction. Thus, the traditional cultures appear to be dying with the elders, and the youth are being

influenced by the globalization of culture (Shahyd, 2003) where traditional culture is being replaced by consumer culture (Jary & Jary, 2000). This puts stress on the environment (with over consumption and pollution) to satisfy the 'market-created lifestyles' (Shahyd, 2003). Traditional cultures are those which are associated with traditional societies (non-industrial society), and which are based on the traditional values of the society. These cultural values, as noted by Groenfeldt (2003), are inherently spiritual and rooted in beliefs, which are the tools used for thinking and shaping the substance of thoughts and feelings of the participants. Traditional culture is being influenced by the globalization of culture just as the traditional cultural values are being influenced by global cultural values.

Public demonstrations, like the one in Seattle in 1999, have been against the WTO, the IMF, the World Bank, and other instruments of globalization, and in some cases, have directly confronted corporations like Monsanto to restrict the genetic modification of organisms (Brecher et al., 2000). In addition, rural community movements for alternatives to globalization, like those in Mexico and southern Brazil, envisage rural development occurring without following the tradition of 'left-wing dogma' that believes change must come through leadership of the industrialized working class. This challenges the "development theories of modernization both capitalist and Marxist, which privilege the centralization of political authority and control of resources towards an industrialized economy void of ecological consideration."(Shahyd, 2003)

Available literature on globalization and TEK, and associated cultures, as indicated above, has mainly evolved around relationships between the recognition of TEK in contributing to conservation of biodiversity and ecological processes, and the

threats of globalization to TEK and culture, with respect to food security and biodiversity management. The literature also focuses on problems arising from the use of TEK in relation to exploitation of indigenous peoples, that are associated with bio-piracy through monopoly, the control of genetic resources by patents and gaining ownership over the resources (that have nurtured the lives of indigenous people for centuries), and associated anti-globalization movements that seek an alternative approach. Furthermore, many are concerned about the growing gap between the poor and the rich, the consumer culture that is replacing the traditional culture (that is based on traditional values of society, and is mainly associated with society's connection to nature). Scant literature is concerned with the available potential in rural farming communities TEK and culture and the influence of global agricultural economy to TEK of the rural traditional communities. Also little research has explored possible cases that show the inevitable influence of globalization despite the level of development, pace, level of influence and the types of response to it. Hence, the primary focus of this study is to answer the following basic questions: 1) What role does enset crop play in the maintenance of local social, cultural and economic vitality in communities traditionally dependent on enset crop? 2) How have enset crop TEK systems been influenced by the inclusion of the global agricultural economy?

Ethiopia has a well developed traditional culture and traditional knowledge system. As Aredo (2005, p.1) emphasizes:

Ethiopia has unique, ...sophisticated and time-tested knowledge systems of its own in all areas including agriculture, handicraft, architecture, diplomacy, military science, social networks, medicine, philosophy, etc. The foundation of

such well-enriched and useful knowledge systems can be traced to the high-level agricultural intensification, vast biodiversity of the country, and the assiduous and hard working peasantry.

Enset crop-based farming is one of the few sustainable indigenous farming systems that can support the densely populated highlands of South and South-Western Ethiopia (Bezuneh, 1996; Tsegaye, 2002; Woldetensaye, 1997; Rahmato, 1996; Brandt et al., 1997; Shack, 1963, 1966). Enset crop-based agricultural production plays a crucial role in the food security currently estimated for more than 15 million in the farming communities that depend on enset crop-based agriculture for their livelihoods. Recently, however, the sustainability has been lost mainly because of the government's direction of policy for research and development, and the overall growth in population in the enset-producing regions. Despite significant contributions for food security and environmental sustainability, the enset crop-based agricultural system is overlooked by public policy-makers and programs and has only relatively recently been recognized as a national crop. As a consequence, the enset crop system has become an endangered agricultural system and the traditional ecological knowledge of the communities, involving knowledge of enset crop-based agriculture, enset crop landraces, and food security, has become threatened.

Ethiopia has ratified almost every environmental treaty including conventions for biodiversity, desertification, and climate change, which are relevant to traditional culture and traditional knowledge systems. Nevertheless, the efforts being made in Ethiopia in these matters have been limited, and these issues are not included in the country's current macro policies, in particular, the National Biodiversity Strategy and Action Plan,

formulated in 2005 (Federal Democratic Republic of Ethiopia, 2005). In general, the communities are greatly concerned about their knowledge about enset crop being lost. Ethiopia currently follows a free market economy as one of its development goals, a national development strategy known as Agricultural Development-Led Industrialization (ADLI), which has been a major policy framework for development since 1991 (Federal Democratic Republic of Ethiopia, 2001; 2002a; 2002b; 2006), as well as policies for poverty reduction, based on macro and sectoral development (Federal Democratic Republic of Ethiopia, 2006). Since Ethiopia is a predominantly agrarian society, the strategies are focused on the development of the rural sector and on agriculture as leading the economic growth (Federal Democratic Republic of Ethiopia, 2002a). Market-led agricultural development, particularly in the international market, is envisaged to continuously improve the country's role and position in international economic integration (Federal Democratic Republic of Ethiopia, 2001). Ethiopia, with its enset-based farming system and farming communities, can be a useful lens to evaluate the general potential in rural farming communities, TEK and culture, and the effects that a lack of TEK on policy formulation and development interventions, especially for food security and biodiversity management, can also be evaluated with regards to the inevitable influence of globalization.

General Background

Ethiopia has an agrarian society and agriculture is the major component of the country's economy, accounting for more than 50 percent of the GDP, 85 percent of the labor force, and 90 percent of the foreign exchange earnings. It also comprises the bulk of

the labor force for raw material inputs to the industry sector. In Ethiopia, Sasakawa Global 2000 (SG 2000) was initiated in response to the widening gap between food supply and food demand, especially because of the devastating famine in Ethiopia in 1984/1985 (Gebre, 2001). The strategy of the extension program was for technology-based, supply-driven intensification to occur through supply and promotion of improved seeds, fertilizers, pesticides, and farm practices, with provision for credit for input purchases. The approach for implementing the program was to use model farmers who have proven to be active and willing to participate in demonstration plots, with the hope that others will follow, after seeing what the model farmers have achieved.

The Southern Nations, Nationalities and Peoples' Regional State (SNNPRS) is a federal state of Ethiopia located in the South and South-Western parts of the country. According to SNNPRS Investment Agency (2006), the population of the region is 14.98 or 21 percent of the total population of the country. Out of the total population of the region 7.2 percent of the people inhabited in urban settings while 92.8 percent of them resided in urban areas. The region comprised of more than 56 indigenous ethnic groups with their distinct languages and cultures. More than 10 related ethnic groups inhabit the main enset-growing regions, with diverse cultures, traditions, and agricultural systems (Tsegaye, 2002), and the Gurage-Ethio-Semitic-speaking people are one of the major ethnic groups who depend on enset as a staple food. They inhabit an area called Gurageland, which is the semi-mountainous region between Lake Zeway, and the Omo and Awash Rivers (McCabe, 1996; Shack, 1963). The Gurage identify themselves as "people of enset" (Shack, 1966). The other major ethnic groups that depend on enset as staple food include Sidama, Hadiya and Wolaita.

The Gurage zone is within the SNNPRS, and comprised of 12 woredas. Sodo woreda is within the Gurage zone and constitutes 47 Kebele PAs, of which 8 PAs were covered in this study including highland, midland, and lowland areas. Maize, sorghum wheat, and *tef* are the major annual crops in the SNNPRS while enset and coffee are the major perennial crops. Furthermore, horticultural crops and other economically valued crops, including oil and spice crops, are also common in the region. Enset is grown in all parts of the region except in the lowlands, and enset is used as the symbol for the region. In the Gurage zone, maize is the major annual crop followed by wheat and *tef*. Other crops include pulses, horticultural crops, and oil and spice crops. Enset is produced in all 11 woredas in the Gurage zone except in one woreda (the lowland). Coffee is another important perennial crop in the Gurage zone.

TEK of rural farming communities of Ethiopia has made longstanding contributions to conserving the agricultural biodiversity as well as species diversities. This is the aspect of knowledge, with prevailing edaphic, climatic, and topographic factors, that developed the existing biodiversity, especially crop biodiversity, in Ethiopia (Demissie et al., 1997). Ethiopia is recognized as being a major center of diversity and a primary center of domestication and diversification for many crops (Thrupp et al., 1998, quoted in Worede, 2001) including a rich diversity of enset (Worede, 2001). Because of these resources, Ethiopia was given the highest priority to be included in the network of plant genetic resource centers that was established around the world in the 1970s by the Consultative Group of International Agricultural Research (CGIAR). In 1976, a plant Genetic Resources Center, Ethiopia (PGRC/E) was established, which was replaced by the Institute of Biodiversity Conservation and Research (IBCR) in 1998, to broaden its

mandate and duties. In 2004/2005, the center was changed to the Institute of Biodiversity Conservation (IBC), which removed the research component, except for conservation-based research. The IBC has a mandate of conservation and sustainable utilization of all forms of biological resources including plants, animals, and microbial resources. IBC has been a focal point of the Convention on Biological Diversity (CBD) since 2005. The Environmental Protection Authority has also been a focal point, since Ethiopia endorsed and signed the CBD in 1992 at the UN Conference on Environment and Development (UNCED) in Rio de Janeiro, until 2005 (Institute of Biodiversity Conservation, Ethiopia, 2008).

Enset is a large, tree-like plant that closely resembles the banana plant, sometimes called the “false banana” (Westphal, 1975). Unlike the banana; however, the seedy leathery fruit of enset is inedible, and hence, the corms, pseudostems, and leaf stems are mainly used as the food sources (Brandt, 1996). Enset-based farming as indicated above is one of the few sustainable indigenous farming systems that can support the densely populated highlands of South and South-Western Ethiopia. This is partly due to the fact that enset can be harvested and consumed before it is fully mature, which enables the cultivators to adjust to environmental hazards and food shortages (Rahmato, 1996). Because of this characteristic, the enset regions have not experienced crises of food shortages and associated famines as seen in other regions of the country (Pankhurst, 1968; Smeds, 1955; Rahmato, 1996). According to the farmers, “enset is the enemy of hunger, and human and livestock life is impossible without it.” (Tsegaye, 2002). It also acts as a cultural symbol for the people of enset regions as it is a unifying crop for the region. Livestock play an important role in the enset-based farming system. Livestock are

not only used as traction power, and sources of food and cash, but they play a critical role in maintaining soil fertility. The enset system, which requires considerable manure, can only operate by incorporating livestock in the system at each stage of the growing cycle (Lange, 1982, cited in Pankhurst, 1996). Because of this practice, Smeds (1955) classified these soils as man-made soils. Enset rapidly exhausts the soil unless it is periodically fertilized with animal dung (Kasfir, 1974; Samoff, 1980, cited in Hamer, 1987). Hence, enset has ecologically important functions in producing organic matter, creating a nutrient reservoir in the soil, controlling erosion, and contributing to the stability and continuation of the farming system (Tesfaye, 1996, cited in Tsegaye, 2002; Woldetensaye, 1997).

The environmental benefits of enset production include: its water-holding capacity that creates a favorable micro-climate after manure application; its deep and leafy canopies that have a long duration, and which improve the water infiltration and decrease the surface runoff, to decrease soil and water erosion. Enset has higher yields in small land areas, compared to other crops, and is a dependable crop for the highlands that are highly populated and have degraded land. The seasonal labor migration is common in the enset growing areas, particularly in the highlands. Men usually migrate to the cities because of the shortage of land, with the agreement of the women. In the highlands, the scarcity of farmland is due to overpopulation. Also, an increasing level of soil fertility degradation is caused by overuse and exposure of the land to soil erosion because of the rolling hills and deep gorges. Enset's economic and environmental values, in addition to the socio-cultural factors, make it important to the communities and to the sustainability of enset-based agriculture. This has been reflected in numerous socio-cultural activities

such as the proverbs, songs, and folktales (stories), and cultural practices of the local farming communities. Enset landraces are also believed to belong to the generations and are inherited so that production will continue. Enset is used for different purposes, though its most significant value is in its food security. The major food products of enset are *kotcho*, *bulla*, and *amicho*. *Kotcho* is a bulk form of the fermented starch derived from a mixture of scraped leaf sheaths and pulverized enset corm. *Bulla* is the food product obtained after squeezing the pulp, and a white powder is obtained after the pulp settles and the liquid is decanted. *Amicho* is the fleshy inner portion of the enset corm which may be boiled and eaten like potatoes. The by-products of enset processing include the fiber that remains after the leaf sheaths are scraped. Enset fiber has an attractive quality and some authors claim that it has an excellent structure and a strength that is comparable to that of abaca, a world-class fiber crop. The rural communities use the fiber for making sacks, bags, ropes, cordage, mats, and construction materials (Brandt et al., 1997). These materials have been observed in this study. Fresh enset plant leaves are used for wrapping food, serving plates, or as pit-liners for fermenting *kotcho* and cattle feed. The livestock in the highland cannot live without enset crop since, during the dry season, when no rain or grasses are present, the leaves of enset crop are used to feed the livestock. Generally in the highland, enset crop and livestock production goes hand in hand, and the enset crop is vital for both feed security for the animals and food security for the community. In addition, some enset crop landraces are used as sources of medicine for both humans and animals, to treat various ailments such as bone fractures. Enset crop-based medicines may also be used to assist in discharging animal placenta. When a cow gives birth, and the

placenta is not discharged afterwards, enset plant leaves (derived from certain landraces) are boiled with salt and given to the animal.

Briefly, enset crop propagation and processing is as follows: Enset is vegetatively propagated from the corm of an immature plant. In October, the central part of the corm is scraped and the growing bud is removed to encourage growth of multiple shoots. The hollow planting material is filled with sand or soil and left to dry under the sun. This is planted in a well-prepared hole and covered with soil. After about one month, 50 to 60 shoots will appear, and these seedlings will be planted. Growing plants are transplanted several times and the enset plant is given a new name each year during its development from sucker to mature plant.

In enset crop processing, a pit is dug by the men before the date for enset crop processing, of a size that depends on the amount of enset plants to be processed and fermented. The women cover the pit with broad fresh enset plant leaves and dried stem parts to protect the product from soil. The men cut the top leaves of the enset plants selected to be processed and peel down the lower part of the pseudostem above the corm, locally called the 'nichie'. The men dig up the surrounding area and separate the pseudostem from the corm; and then clean and transport the plants to the processing ground, carrying them on two wooden sticks (called *yewuta inchet*). A wooden board is placed in an inclined position on one of the enset plants. A woman will cover herself with papers or plastic covering, raise her leg, and press the sheath by her heels on the scrapping board, to secure the sheath from falling, and hold the enset plant part while scrapping it with a wooden tool (called a *sibisa*). The white part is collected and used without entering the fermentation process. This part of the *kotcho* is called *aftentenat*,

which means that it can be ready in a short time. The corm is crushed and pulverized directly in the pit. The rounded part of the corm that is easily identified, is boiled and ready to be eaten (locally, it is called *amicho*). The corms of some of the harvested plants are left *in situ* to be prepared as seasoning for *kotcho* in the fermentation. The pulverized corm and the scrapped product are mixed and kept in the pit for fermentation, being covered by leaves and stones. The enset plant scrapping process separates the fleshy part of the pseudostem from the fiber while allowing the juice to flow down in the small pit lined with enset leaves. After a short period, the juicy sediments (known as *bulla*) are squeezed by a woman using the enset fiber. The product may be used directly as it is free from fiber, or may be kept for years in the main pit. The prepared seasoning is added into the pit after one month and, depending on the need of the family, can be reprocessed within 3-5 months, and kept in the pit until used.

Key Findings

Importance of Enset Crop to Local Culture, Status, and Food Security

The respondents of this study highlighted several factors indicating the importance of enset crop to their livelihoods including the following:

Meskel Festival

Enset crop has a big cultural value related to the Meskel festival. On September 14 (Ethiopian Calendar-Ethiopia has its own calendar. The current year according to the

Ethiopian calendar is 2001. The Year 2001 has started on September 11, 2008 of the Gregorian calendar), “Women’s Meskel” takes place, when women prepare *Ayb* (cheese flavored by butter and chili), *gomen* (cooked cabbage seasoned by butter, chili and onion), and *kotcho* for her family members. The day is called “*Dengessat*”. September 15 is “Men’s Meskel,” where *kotcho* is served with *ketfo*. The men are responsible for providing the meat and the women prepare it. During this festival, the best quality *kotcho* is served. If a woman has no *kotcho* to serve her family members and guests at least *kotcho* mixed with flour to make bread (called *Kimus*) is ashamed. In any case, according to the culture a woman without *kotcho* at the time of Meskel is a rare occurrence. Many Gurages come to the rural areas to celebrate religious ceremonies, and many who are from the cities will invite friends who are Tigre, Amhara, Oromo, or members of other ethnic groups to celebrate Meskel with them. This has contributed to popularizing the traditional culture of the community among other ethnic groups. September 16 and 17 are national Meskel festivals, when celebrations start in the late-afternoon of the 16 called “*Demera*”. Other religious holidays are celebrated, such as Arefa, when enset is very much attached to the culture.

Bride’s Gift

When a father looks for a wife for his son, the father of the prospective wife will ask him how many enset plants he has prepared to give the new bride for a living. He will not be asked how much money he has or how much farming land he has. He may say 500 enset plants or more, even though he may not be serious about giving them. He may also add that he will give the newly married couple two cows, a pair of oxen, and so on, which

will be registered. If a person does not have an enset plant garden he will not be given a wife by her parents. This implies that without an enset crop garden, one will be without food. Thus, the people do not believe that they are food secured if the only food source is from annual crops. Moreover, some people will attempt to find out whether or not the father of a bride has prepared the required enset plants and associated materials for the bride's new life. They may ask if their daughter will have a place to sit and urinate and wash herself. Previously, if no toilet was available, the enset crop garden was used as a place to urinate. Typically, the men would go to the forest to urinate, whereas, the women would urinate in their gardens. Consequently, those without an enset crop garden were refused for marriage. In any case, since toilets are available, this situation is no longer important. Some might say that they will give their daughter a place where "*ebedereye atyzem atfezbo ge*" (in the Gurage language, it means "we will only accept a family where our daughter will not stand and be puzzled with empty mat in the absence of *kotcho* to be cooked"). They want to be sure that "real food" "*Guns-kotcho*" will be in the house before they will accept a man as their daughter's husband. A secondary criterion is for cattle to be present, to ensure that milk will be in the house, and that manure will be available to supply the enset plants.

Yewstede

During a wedding ceremony of an elder sister or a brother, a tradition is followed where enset plants are given to a younger sister as a gift. After the bride and bridegroom leave the house of the bride's father, a group of singing women goes to the mother of the bride and gives her a branch of a juniper tree. The mother then covers their hair with

butter, which is a community tradition to bless someone. The women continue singing and carry the younger sister of the bride and lay her onto a large enset plant, marking it as being different from the other enset plants in the garden. The enset plant that the younger sister received as a gift will be her own to care for, and when it is ready to be harvested, she can sell it and use the money for her own needs. This requirement obligates the man to plant the needed enset plant. The ceremony is called a “*Yewshtede*,” and the song of the women in *guragegna* goes like this:

Segoye Segoye Segoye Segoye

Bekeli medere ekeli tisegere

(This means: in the place of the married one, let the younger one replace.)

Amed Mafesha Ken

When a woman gives birth, a ceremony day is held, called “*Amed mafesha ken*,” which, in the Amharic language, literary means: “Day of collecting ash.” In such ceremonies, food and drinks are served for the invited guests. As part of the ceremony, the invited guests sing a song and between their singing, they say *elelelelelelelelelele* and spread the ash on a big enset plant. They make a mark on it, and the plant is supposed to be given to the woman who gave birth, and no one will ask her about it. When the plant is processed, the woman can sell the product and use the proceeds for her own needs. She is the only one who has the right to use that enset plant. Again, the man thus becomes obliged to have enset plants ready to give his wife as a gift when she gives birth to a child. This is another socio-cultural contribution for the sake of continuity of enset production.

Status Symbol

Enset crop plays a role as a status symbol in the community. The people in the community use several criteria for classifying farmers as being either rich or poor, and a general difference is made on the basis of the number and types of enset that a farmer plants though at present it is not as strong as it used to be. Also, of primary importance is the condition of their enset crop garden. The enset crop garden of a rich farmer is well managed and attractive, even to look at. Rich farmers do not need to use the plants before they mature, for the sake of having food and the plants can spend more time maturing. In contrast, the garden of a poor farmer is less well managed. The labor and the food and drinks that a farmer prepares for the plowing and cultivation are not affordable by many farmers, though some farmers enter into reciprocal labor agreements for the enset crop processing. Additional labor is hired for specific tasks such as scrapping the leaf sheath that requires special expertise. In some families, where family members may be able to plough and cultivate their land, some expenses can be avoided. In the case of poor farmers; however, even if a family member is able to do some of the work, because of the obligation to work elsewhere in other gardens, the enset crop garden is usually in a poor condition. Occasionally, a poor farmer may be able to keep the enset crop garden in a good condition but since they might not have other supports from outside, and may have a number of children, they may be forced to use the enset plants before they are mature. In such cases, they also may have stands that are not uniform, since the enset would be used as food in times of shortage. Hence, the garden would not be tall and attractive, even

when the appropriate landraces are used. The rich farmers, in contrast, have money to spend on producing enset crop. Since they likely have an alternative to enset crop, the enset plants will remain on the ground longer. Also, since they likely have a large number of cattle, more manure will be available for the garden. Consequently, by examining the condition of enset plants, an observer can have a fairly good estimation of the farmer's wealth. If the enset plants are abundant, and appears to be well managed and offers food security, the owner is considered to be a relatively rich person. Still, as some of the respondents indicated, the number of enset plants alone is insufficient to classify the owner as being rich or poor, since some gardens may have a large number of enset plants but they are poorly managed, the end result will be a poor stand. Generally, the number of enset plants in the garden will be determined by how much one can invest in the garden, in terms of labor and money. Farmers are considered to be rich if they have at least 1,000 enset plants. Poor farmers would generally have 200-250 plants, and even if space was available for planting, they will not expand their garden. As one respondent stated, "The land holding could be one or half a hectare. What matters in this area is not the amount of land he has but how he manages his land." The number of livestock also plays a role as a status symbol, since livestock is strongly linked to the conditions for enset crop production. If a farmer has a well managed enset crop garden, the livestock production will also be good, because of the availability of feed.

In some cases, a poor farmer may not have any livestock and only have the enset garden. He may make arrangements with a rich farmer and take a calf and raise it in his house so that he will benefit from its milk and the manure for the enset crop garden. In

addition, the rich farmers can afford to grow the late-maturing enset crop landraces, as pointed out by one of the respondents:

Those rich farmers plant those enset crop varieties like Badedate and Gejut that have resistance to harsh situations and are late maturing. Whereas the poor farmers select those enset crop varieties that are early maturing even though they have lower resistance to harsh conditions. The rich farmers do have other means that could let them wait the late maturing ones to mature. But since the poor farmers do not have other alternatives they select early maturing ones like Eneba and Awogne. This early varieties could mature and develop Shiya (flowering part of enset that emerges at maturity time) in about three years. (Excerpt from male farmer research participant)

Food Security

Enset crop is important for its contribution to food security. The farmers and agricultural development workers generally agree that enset, as a food security crop, could not be replaced by other crops for the highland communities. Other crops are produced in limited amounts, for the purpose of supplementing the food value derived from enset crop, and for income generation. *Kotcho*, is nutritionally poor in protein and the farmers often supplement their diet with other grain crops and horticultural crops, as well as animal products and byproducts. They usually mix grain flour with *kotcho* to prepare bread (called "*Kumus*").

Furthermore, many respondents have noted that only enset crop can survive the harsh climates, like the drought season and the frost that are common. Some respondents suggested that people can avoid hunger, especially during times of drought, if they can process just a single enset plant. Nevertheless, the community cannot have food security by only relying on a single crop. Farmers, who have a shortage of other crops as supplements to their enset crop, will buy from the market. Those people who can afford buying from the market are mainly those people who are supported by relatives from the cities.

Nevertheless, the current focus of the government is on cash crops and even the respective regional states follow the federal trend. The factors contributing to these approaches and why enset crop is not on the political agenda currently require further investigations. As one of the respondent argues:

At the zone the activities are on other crops. Though the region can select the focus area relevant for the region, the region has focus on those crops that has been focus area at the federal level. So though enset is the major crop of the region it is not being given attention to enset. (Excerpt from one the rural development expert)

Furthermore the focus given for enset crop research is limited. Currently two experts are assigned to work on enset crop research at research center at national level for enset crop. One of the respondents put the existing situation as:

Areca research center is under Southern Region Research Institute. The linkage with the National Agricultural Research Organization is in cooperation bases. The national research is conducted at Areca research center. It is under crop science

department as one project. The project coordinator is the only representative of the national research organization. All activities at a federal level are coordinated by this project. Allocation of resources and programs are coordinated by the project. All programs that have got acceptance on enset crop research at federal level where ever they are being implemented are coordinated by this enset crop project coordinator. He follows fund allocation and their financial utilization and activity reports. The project coordinator himself is under the southern region research center his salary is paid from the region. It is the region that assigns the project coordinator to work for the national program. Since the coordination of the national research activities on enset crop has been given to the region, the project coordinator reports to the region. There is no as such any regional enset crop program in Areka. All activities are national programs and the southern region has been given a coordination and evaluation roles. All the funds are flown from the federal research organization and the salary for the project coordinator is paid by the region. Areca when it was established it was for enset crop and root crops. At that time it was sub center under Awassa research center. At that time it was only for enset crop research. Later other root crops were such as sweet potatoes, cassava, and yam are included. At present horticultural crops, animal science, crop science and socio economic studies are included. It is now designed to be a center by itself not a sub center. Two experts are assigned to work on enset crop. Enset crop and root crops agronomist and Enset crop and root crops protection experts are the title at present we have. There is no a clear

memorandum of understanding between the federal research organization and the regional research institute in coordinating enset crop research projects.

Bacteria wilt is a serious problem particularly in Gurage area. At Areka research center screening for disease free enset crop materials is undergoing. Tissue culture laboratory establishment is underway for the said purpose. Furthermore, a number of enset crop landraces have been collected from various enset crop growing areas including, Kefa, ILLibabore, Gurage, Sidam, Gedo, Kembata and planted in the Areka research center. Some of these landraces have been characterized and their yields to some extent have been evaluated and effort is being done to release these landraces as a national varieties. All characterized landraces still maintain their local names. Enset crop breeding and agronomy and to some extent socio-economic enset researches are undergoing at Areka research center while at Awassa research center enset crop protection research is undertaken. Nevertheless, Areka selection as a national center for enset crop research has been criticized by some researchers as they say Areka area is not a representative for enset crop growing region. As one of the respondent argues:

When Areca was selected as enset crop research center, it was only at Areca they got a place for the center. In addition, since in Woliyta people used to take enset as staple food but later on they shifted to other crops production. The intention of establishing the center was to attract the people to enset crop production and bring them back again to take enset crop as their staple food. However, most people believe the selection of Areka as enset crop research center was not based on a proper criteria used to evaluate whether it is a representative or not as a center for enset crop research..

Furthermore, very limited activities have been done in the area of enset crop diversity conservation. There has not been attempt to collect enset crop landraces from all over the country for the purpose of conservation. As one of the respondents indicates:

In the first place the identification of the varieties, taxonomic classification should be done. From the identified varieties we can go to see which of these are drought resistant, disease resistant, and tolerant of alkalinity, acidity and so on. All these should be studied. After we have this information we can study which one are in the trend of being lost? Which ones are preferred by farmers? Which are being abandoned by the farmers and to conserve those which are being pushed out by farmers? Those that are selected by the farmers will continue to be in the farmers' garden?

The bottom line is that as one of the respondents states "If it had been supported by research it could have obtained commercial and industrial value and then as a result probably enset crop will get focus in all direction". If has been stated the envisaged research support is obtained for enset crop development and if the required attention is obtained from different directions, enset crop contribution to food security of the communities may be enormous.

Moreover, the issue of losing the TEK has been a concern by the communities for its use in the production of enset crop that the communities associate with food security. A concise argument by one of the respondents state that:

It is good farmers are asked what they are doing. There is a lot of knowledge which have not been tapped thinking they are outdated. If such knowledge is grasped and supported I think it will be useful so that we can have a direction in

which every one will be able to support himself. If the elders die all the information they have will be lost for good since it has not been recorded. So if the person dies, loss is not only for his family but it is loss for the community even it could be considered lose for the country at large. This is because experiences are obtained through a long time practices. We can not get them easily. At least now the government should be ready to collect the available information and preserve them for use. Otherwise we will lose all the past information on enset. It will be regrettable thing for the future enset development.

Besides the economic and environmental values, socio-cultural factors also cause enset to be important in the community, leading to the sustainability of enset crop -based agriculture. These aspects are reflected in various socio-cultural values such as in the enset crop farming community's proverbs, songs and folktales (stories), and cultural practices. For example, the song lyrics: "*Yegemogi Tafi Yelet yeletne Yagerigna enset yezelalemne*" (Guragegna) mean that *tef* is used according to the season, but enset can be used year-round. The sustainability of enset crop is suggested by the folktale: "*Ayfekidi*" (Guragigna language) which means to stay long and be patient. The story was told by one of the respondents:

During the occupation of Italy in our country, the people who use to live in Wacho left the area to fight the Italian occupation. The surrounding area was burnt and when they returned after five years after victory, enset had survived and the returnees continued processing and started consuming it after leaving the area for five years. At that time, someone who was known in the area cried, "*Aayfekdi*

ayfekdi tonahem tebekem abo ensetdi.” (Guragigna language), which means:

“Enset, did you wait for me so long?”

With regards to enset being a cooperative crop during difficult times, one of the respondents referred to a story:

When I was a four-year old child, we had a problem in my family. We had to leave the area and live somewhere. When we returned to the area after 15-years, we found that our enset crop garden was untouched and had survived by competing against the big trees growth that almost covered our house. Hence, we can say that enset plant not only resisted the harsh climates, but cooperated at our difficult time. When we arrived, we had no food and my mother, who was good at processing *Kotcho*, prepared food after we cleared the area and went to our house to uproot enset plants for processing. We boiled *Amicho* and processed the enset and had food to eat in the same day. So we ate our food even though we had not worked on it for 15 years. This is the kind of support that we can get from enset.crop

Maintenance of Cultural Practice Through Traditional Social Networks, Sense of Place, Family Respect, and Sustaining Family Name (saving father’s land)

Social Networks

Social networks are believed to give farmers access to the exchanging of plant clones and to knowledge about crops that neighbors, relatives, and kin can provide to increase the diversity of their gardens. The community’s culture has a social support

system for helping individual households with their enset crop production when the need might arise. Some of the social supports are used to support individuals when they start their new lives and to help female-headed households that do not have children or relatives to support them.

When a man is separated from his family, and he begins a new life, he will be given some enset plants by his father and his relatives. Neighbors will also contribute one or two enset plants that are at the *kiyba* stage, and the man will be able to establish the plants. Within two or three years, he will be able to harvest the enset crop. This is an example of the social networking that takes place in communities that helps individuals as they set off in their new lives. Enset crop is not like an annual crop that can be harvested quickly, which makes the community's show of support even more significant.

Female-headed households benefit significantly from social networking. Usually, they hire labor for enset crop production and for crop farming if their own sons or other male relatives are not available. Nevertheless, when necessary, they receive support from the community. One of the respondents stated that, "the community will not leave you if the worst comes." The support often starts at the point of plant propagation and continues to the enset crop processing stage.

Sense of Place, Family Respect, and Sustaining Family Name (Saving Father's Land)

In Gurage culture, every family member is expected to pay a visit to their parents during the holidays and during festivals, especially in the Meskel festival, and is expected to support their parents whether they are in the rural area or have migrated to the city.

This is a serious cultural obligation in the community. If any family member fails to make these visits, they may be forbidden to visit the family later, for instance, to attend a parent's funeral. This kind of family obligation creates a sense of attachment between those who have migrated to other areas and the enset crop farming community, which is the main source of livelihood. As one of female farmer respondent stated:

Even those who have migrated to the city care about enset crop very much. They send money for the enset crop production... They love their locality very much and there is no-one who ignores seeing his/her place... they really care for enset crop and family whether they work in factory, or are traders or do any other business.

Some of those who have migrated still follow and have knowledge about enset farming practices. One of male farmer respondents explained:

My children come to the rural area from the cities to be sure everything is going well in enset crop production. They cannot ignore enset crop because when they get old this is the place to retire. They learn every thing about enset from me though they do not go to school to learn about enset.

The people migrate mainly because of land shortages. Culturally, leaving one's father's land is not encouraged. Members of the community are concerned about keeping the land of their parents and their grandparents. Some of those who have migrated might even return to the rural area for the sake of continuing their family name, which may be culturally attached to the land. One of the female farmer respondents in the female-headed households suggested:

I am struggling to live here to save my father's land so that it will be transmitted to the next generation. If I had not come here it would have been taken by others outside of our family. I used to live in the city and I came here only for this purpose leaving my family behind. Now at this age I do not want to go back to my family... There is no way I will give it up. I have already paid a lot of sacrifice on it to fulfil the intended purpose.

The concerns and support shown by family members who have emigrated, with regards to their parents and the enset farming, is not restricted to just Ethiopia. Even those who have migrated to foreign countries still appreciate being connected, and feel proud about being part of the community. According to one respondent:

Enset is a big thing in our culture. In the highland, their children even from America, Canada, etc. send money for managing enset garden. They send money and keep the enset garden for the sake of keeping their father's name. That is why it is said, "*Suma semn*," (enset is one's name). They build houses and furnish them with modern furniture that can even be compared to houses in the cities. The

Sodo Gurage tradition is very much appreciable. (Excerpt from male farmer research participant)

This excerpt indicates the contribution made by globalization in labor migration and the ongoing support of the enset communities and farming system. One proud mother said, “I am rich below God. All resources have come from our children. It was not from our own.”

Recent Transitions in Enset Crop Production in Response to Globalization

Various transitions have been observed in the farming communities in response to globalization, including changes in cultural tastes (e.g. preference for maize); labor adjustments in response to male migration; resulting pressure on communities to aid families that are lacking in sufficient labor; and loss of youth engagement.

Changes have been observed in food habits that can be attributed to the interconnectedness with the mainstream culture. Enset landraces, such as Astará's *amicho* with coffee, used to be served as a starter for breakfast in the New Year, before any other food was consumed. One of the respondents indicated that this practice is unrelated to any beliefs, but is simply a cultural practice. Nevertheless, a change has occurred in the present practices in the community where the new practice is to eat maize cobs. Some respondents indicated that those in the community also prefer eating roasted or boiled maize cob for breakfast in the New Year. This is a good example of a cultural change that is the result of integration with globalization.

Labor adjustments have also been used to measure trends in the communities in response to male migration. In households with males who migrate seasonally, the

women are responsible for managing crop farming and the enset gardens, in addition to their domestic responsibilities. This phenomenon known as ‘feminization of agriculture’ is clearly observed in the community. In the households where the males migrate and are successful and send money back home for labor and other expenses, the women manage the garden production.

A pressure is exerted on the communities to aid those families that lack sufficient labor resources, when the migrating males are unsuccessful in the cities. The women try to organize their relatives and neighbors to help them in garden production and enset processing. The community generally feels obliged to support such families and cooperate with their requests. Furthermore, the women are no longer able to keep the enset garden in good condition because of the extra workload in their families.

The loss of youth engagement in enset farming is another important change observed in the study, in response to globalization. In the advent of cultural globalization, the youth in the study areas were seen to lose interest in the enset farming system. Education in schools and the exposure of city and town lifestyles seems to have contributed to these changes of attitudes toward enset farming. Until recently, enset was not popular among most Ethiopian people, except for those who depend on it for their food and for other uses. Many students in the enset growing areas do not usually take *kotcho* with them when they go to school in the towns. According to one of the respondents, *kotcho* “is taken as food for rural people and does not show that one is civilized.” To change the attitudes of the younger generation in the enset growing areas, as well as the general population, towards enset, education is suggested to be a way out. As one of the researchers respondents argues:

Enset should be given as part of education program in schools. I remember in the elementary schools curriculum... examples were given such as lettuce and other vegetables that were not familiar to us. We knew at that time in our area potatoes, cabbages, etc. Even at that time it was possible to teach things that were not available. At present, where enset has been recognized as one of the national crops, it is very important and necessary to include in the curriculum of schools in addition to the curriculum of the higher educations. If this is done, the students will give value to enset products. I remember ... students were not taking enset products to schools because other students were taking bread from wheat and they were ashamed to take enset product food. So if such things are not being removed it does not make sense for me that enset is being given focus by concerned body.

The respondents in this study have many diverse views about how knowledge is transmitted to their children, and about the continuity of the farming system being carried on by their children, when they consider the attitudes of the younger generation towards enset. Youngsters in the midlands, who are near a town, tend to distance themselves from enset farming, in comparison to the youngsters who are in the highlands, and are relatively further away from the towns (though they go to towns for schooling). Some respondents expressed their doubts that enset will be continued as a farming system when they consider the attitudes of their children about enset farming.

While some respondent expressed doubts about the continuation of enset production, they also do not expect that their children will follow their traditional knowledge about enset farming. They are concerned that the children who go to school will not want to participate in farming, especially in enset farming. One of the

respondents stated: “I do not think our children will follow what we are doing now on enset production for the future. I used to work with my father after school but the present children are not willing to work. They focus on their school and when they return from school they either study or play football.” Some respondents even linked this trend to the future fate of enset development. Some respondents also associated the limited involvement of youth to the limited time they have, and to the inconvenience in carrying *kotcho* food while they are in town for schooling. Still, some students believe that enset is a “peasant’s food.” They are not comfortable about eating *kotcho* in front of their fellow students.

Revitalization in Response to Globalization Pressures

In the highland enset crop growing areas, most of the respondents have positive feelings that their children will follow their route in enset crop farming, particularly those children who live with them in the rural area. Some even believe that those in the towns and cities have knowledge about enset crop farming and will follow the farming system after their death. As one respondent put it, “They cannot ignore enset crop because when they get old this is the place to retire.” The respondents who believe that their children who have migrated to the cities will still continue with enset crop farming feel that their children will come back to the rural area, be married, and leave their wives to follow-up with the farming. The basis for this belief stems from the social networks, the sense of place, and their ideology of marriage.

Some of the children in the study area were observed to follow their parent's route in enset crop production, after school and in their free time. Their parents have developed confidence that their children are aware of the importance of enset crop, that they have the knowledge for enset crop production, and that they are taking it seriously. With regards to students who consume *kotcho* when they are studying in a nearby town, despite the changing practice and the fact that many students refrain from taking *kotcho* to town, some students still maintain the practice, as noted by a respondent:

Students who study in the nearby town take *kotcho* with them that will be used at least for 15 days. We have *kotcho* prepared by steam called "*Ganchir*" that is durable without being spoiled for a long time. Since the parents cannot afford buying those available in the towns they give them to carry *Ganchir*. *Ganchir* was famous by those merchants who used to trade by going to Addis Ababa. So they used mule and carry their luggage in animal skin sac and since there was no hotel on the way they carry *Ganchir*. *Ganchir* has very hard covering when you touch it but it can be eaten without problem. (Excerpt from one of the Kebele PA leaders research participants)

The above excerpt shows the influence of economic status in changing practices for those who can afford to be flexible, in comparison to those who must continue with the traditional practice. These patterns could be the subject of further research.

A growing trend is seen in the multicultural food habits in Ethiopia, including patterns of *kotcho* consumption. The mainstream culture is generally adopting some of the habits of the minority culture. *Kotcho* has gained in popularity as one of the main categories of Ethiopian cuisine. As a respondent noted, "Enset crop as a food is used

everywhere in the meal, whether at wedding ceremonies, at funerals, or in religious, cultural, or social festivals, you are sure to have *kotcho* there.” Enset crop was once only seen in the South and Southern regions of Ethiopia, in traditional places, but enset products are now becoming more commonplace in famous hotels of Addis Ababa. It is presented with dishes of minced meat, and is butter-flavored with chili (*kitfo*) served raw, and has become its own category of Ethiopian cuisine. Currently, it is common to see it at most wedding parties and at other occasions, where *kotcho* and *kitfo* is served as part of the meal. Those who once refrained from eating *kotcho*, due to its pungent smell, have now adopted the practice of eating *kotcho*. At present, *bulla* is bought in Addis Ababa for women who have given birth. This is not only for Gurage women, but it is a common practice for any woman in the towns and cities in Ethiopia. Previously, *bulla* was only eaten directly from the stored pit and fresh *bulla* was taken to the market as was *kotcho*. Today, in addition to the fresh variety, *bulla* is also prepared as a powdered form and may be spiced and even exported abroad. The smell has been improved and it is now more acceptable to anyone. Some modifications have been made, in terms of adding coloring during the preparation of *kotcho* bread, to create new varieties. Generally, the culture is changing with regards to accepting the enset crop products, which have gained a wider acceptance. A respondent commented about the changes in people’s attitude:

If the food value of enset crop product is increasing, particularly the repelling and irritating smell for those who are not used to it, there will be very promising market for enset crop products. Enset crop product that is prepared as a powdered form eliminates this smell. At least these situations are one step ahead in the progress of enset crop development. Therefore, if works are done to strengthen such efforts and if it is expanded like “*besso*” (roasted and ground barley) packed in powdered form and sold in many places, I think there will not be any problem making enset crop a commercial crop. (Excerpt from one of the researchers research participants)

“Besso” has become popular by most Ethiopian in the rural as well as in the cities. Barley is grown in many parts of Ethiopia. This probably has contributed to popularity of “besso”.

Discussion

Rapid economic, technological, and cultural changes are threatening the enset-based farming system. Nevertheless, since the farmers believe that their food security depends on enset crop and are well aware of the consequences of losing enset crop production, they, especially the farmers in the highland, remain focused on enset production. They do this, even though agricultural extension programs are focused on other crops besides enset crop. Many farmers are reluctant to shift to the annual crops, despite the disincentives for producing enset crop, and in some cases, the extension workers are forcing farmers to shift to other crops, taking away their freedom to choose and having implications for their ability to ensure food security. In addition, some

cultural reaction was seen in response to this process of changes, such as a revitalization of the cultural value of enset crop. Cultural revitalization of a food habit has been observed in cities as a result of cultural integration and accommodation under the influence of globalization. The inevitable influence of globalization, combined with the current trend of integration of a country with the global economy, along with population pressures and environmental degradation is an overpowering force. Thus, cultural revitalization will not be sufficient to counter the strong challenges facing the system of enset crop production, or be able to revitalize the role of enset crop in Ethiopian agriculture, unless major changes occur to the communities and the traditional farming system. Socio-cultural values also tend to undergo waves of change, and the cultural values of the younger community members may no longer resemble those of the older community members. The changing values are largely influenced by the globalization of culture through education, and by the seasonal migration to the towns and cities, especially from the highland of the study area, that facilitates the people's integration to the wider mainstream culture. Furthermore, the adoption of crops for external markets threatens the local knowledge base, which includes the knowledge about local biota. The relationship between biodiversity and local culture suggests that a local staple food, like enset crop, is a central feature of local culture.

Conclusion

Traditional ecological knowledge of enset growing communities have significantly contributed to the survival of enset-based agriculture and hence for food security of the communities as well as to the local environment despite the previous

marginalization of the agricultural system by government policies and development interventions. It is important to note that enset crop-growing communities are the authority and experts with significant traditional ecological knowledge on enset crop-based agriculture and hence, this knowledge is an invaluable resource for the communities particularly for communities, residing in marginal environmental conditions as well as a starting point for any research and development initiatives envisage for the development of enset crop -based agriculture.

Rapid economic, technological and cultural changes are threatening the enset crop-based farming system; but since the farmers strongly believe their food security depends on enset crop and are well aware of the consequences of losing enset crop production, despite the focus of agricultural extension program on other crops and very limited extension services There has been resistance to shift to annual crops despite disincentives to enset production and in some cases the extension workers forcing farmers to shift in which freedom to choose has been taken away from the farmers that had implication for their food security ability as has been observed in chapter 2, the farmers particularly in the highland still focus on enset crop. They do not lose hope on it and shift to other crops leaving out enset crop. Furthermore, there has been cultural reaction to this process of changes, such as the cultural value of enset crop is being revitalized. Cultural revitalization on food habit has been observed particularly in the cities as a result of cultural integration and accommodation influenced by globalization. Nevertheless, with the influence of globalization which is inevitable with the current trend of integration of the country to the global economy as well as with the given population pressure and environmental degradation in the area, such local resistance to

global pressures and the cultural revitalization experience will not be enough to counter the strong structural challenges currently facing enset crop production and revitalize the role of enset crop in Ethiopian agriculture unless major changes are taken in the lives of the communities as well as on the traditional farming system. Hence, the common saying by many researchers and developers that the “farmers will protect enset crop for their own survival and the social value attached to it” may not take us a great length in the current culture of economic values.

As indicated above, two concurrent processes are observed through the linkages between TEK, culture and globalization as well as globalization threats to TEK and culture of the communities. On one hand, rapid economic, technological and cultural changes associated with globalization are threatening the enset crop-based farming system but these threats have not stopped the rural communities from growing enset crops despite the disincentives and the reduction in yield. On the other hand cultural revitalization on food habit has been observed particularly in the cities as a result of cultural integration and accommodation among the different cultural background influenced by globalization. Hence, globalization not only influences cultural diffusion but also cultural diversity; both processes co-exist in the present globalization era.

In the first case, persistence of enset crop farming by rural communities is not only for cultural reasons but probably mainly for economic reasons. Two things can be concluded here: on one hand modernization in terms of agricultural technology has a remarkable contribution in the transfer of scientific & technological innovations to areas where these scientific and technological innovations are not available. However, food security is enhanced when crops like enset crop chosen are ecologically suitable to local

region. Enset crop has shown to be the major food security crop particularly in the highland with relative resistance to harsh climatic conditions like drought and frost that are recurrently occurring in the area. Nevertheless, the TEK of the communities and the traditional agricultural technology that were sufficient for the production of food supplies for the then low population are not capable to sustain the same with the current prevailing population pressure and environmental degradation in the area. Hence, it necessitates the incorporation of scientific and technological innovations to such local crops for the purpose of food security. Policy and development attention is required even if these local crops may not have economic competitiveness; the current development strategy focuses on economically competitive crops. On the other hand, the incentive for maintaining and revitalizing the enset crop farming by rural communities is mainly food security. This has been observed in the case of communities in the midland who use enset crop as complementary to other crops. Despite the interest by elders to eat kotcho, they mainly keep it for the rainy season, the time when there will be shortage of food source from crop production. Hence, supporting TEK as public goods through policy and development is an indispensable measure for safeguarding food security for those farming communities particularly those with limited alternative livelihoods. It is useful and ethical to involve the rural farming communities in the process of development that affects their lives including policy formulation, research and development measures and making use of their time tested TEK in research and development. As indicated above the struggle of enset crop farming communities to maintain TEK and the traditional farming system is not primarily a cultural preference but it is an issue of survival. However, their survival has not been insured with only depending on their TEK in the present prevailing

changes occurring in terms of socio-economic and environmental systems at various levels. The scientific and technological innovations developed without involving the farming communities may probably be unaffordable and ecologically unsuitable and/or are not in conformity with communities' cultural values. Hence, by integrating TEK with scientific technologies that are enhanced and transmitted through the processes of globalization, the diffusion and adoption and growth of modern agricultural technologies such as artificial fertilizers and other inputs can be enhanced. Policy makers, researchers and development workers have overlooked this opportunity and this probably has contributed to masking of the positive contributions of globalization by associated negative aspects that come with it.

Recommendations

Policy needs to be formulated including the needs for integrating TEK and SEK, emphasizing the importance of linking formal and informal knowledge in enset crop agricultural development. Furthermore, the policy needs to capitalize the benefit of enset crop and TEK of the enset crop farming communities particularly emphasizing that more than 15 million people depend on the crop and poverty is increasing. At federal level particularly when the federal system gets strength it should be the regional state administration's responsibility to ensure the different offices focus more on this depending on their given mandates, such as strengthening the manpower and looking for incentives for those who work on enset crop.. Furthermore, the knowledge in enset crop production is traditional knowledge and most of the knowledge on enset crop is on enset

crop growing communities' hands. Hence urgent actions are needed to systematically document the traditional Ecological Knowledge of the community on enset crop-based agriculture including, identification, analysis, understanding and documentation of local practices and landraces. Moreover, since the research done on enset crop to date is limited, focus needs to be given on enset crop research including screening landraces against bacteria wilt, characterization and evaluation of enset landraces for yield and quality and socio-economic investigations.

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Chapter 5: Conclusion

Neo-liberal globalization of agriculture, that is manifested in national agricultural policies influence on traditional agrarian communities can be understood through analyzing the implications of neo-liberal agriculture in the developing countries and the effect of neo-liberal agriculture on gender roles and knowledge system. I assess the above issues through a case study of the Gurage enset crop-based agricultural communities. The selected case is important since it reveals the importance of local staple crops to rural community food security, their ecological appropriateness to their location, the extensive local knowledge, and the cultural role. The Gurage ethnic group is one of the major groups who use enset crop as their staple food.

In this concluding chapter, I briefly summarize the research questions, key findings and implications for their potential relevance for neo-liberal globalization of agriculture literature, policy-makers, development partners/NGOs, researchers, planners, managers and citizens.

Summaries

Neo-liberal globalization of agriculture influence paper (chapter 2) addresses the research question: How has neo-liberal globalization affected traditional enset crop - based farming in Ethiopia? This study reveals that there is no difference among the various stakeholders, including the policy makers, researchers, agricultural office heads and agricultural extension workers on the limited contribution of neo-liberal globalization

of agriculture to enset crop development. In addition to pressures exerted on farmers to adopt cash-based crops, one of the most predominant themes that emerged from this study was the tendency for current agricultural development policies to hinder much-needed research and development on enset, a food staple for many farming communities. Nevertheless, there are differences in perceiving the state of research and development on enset crop in Ethiopia. For some stakeholders research on Enset crop is limited and the main reasons include, the dependence of agricultural research in Ethiopia on the external research organization links that have no research experiences on enset and similar crops to influence the research in agriculture in Ethiopia. For those researchers who have interest to work on enset crop research are not motivated because of lack of incentives. Yet, some researchers believe that the main problem is not lack of research on enset crop rather even the limited researches that have been done on enset are uncoordinated and dispersed manner. Hence, these situations including, the external links that have no experiences on enset crop, lack of incentive for researchers to work on enset crop, and lack of coordination contributed to the limited availability of improved technology for enset crop and as a result the agricultural extension workers do not have the 'research-based knowledge' to offer extension service to farming communities. They focus on other crops that are labels as extension crops. In earlier cases they even force the farming communities to replace enset crop by annual crops. Nevertheless, the study reveals how the farming communities resisted the disincentive in the production of enset crop and persisted in growing enset crop as their food sovereignty right in the presence of strategies influenced by neo-liberal globalization of agriculture. However, despite the previous experiences of disincentive in the production of enset crop, the partnership

arrangement through agricultural governance between government agricultural offices, international NGOs and farming communities, enset crop is being introduced to areas where enset crop was not traditionally grown. Nevertheless, the introduction is not extensive and requires scaling-up. This study also reveals one of the central approaches to benefit enset crop farming communities from neo-liberal globalization of agriculture is to create local-global linkages that recognize the diversity of issues involving agro-ecological, socio-cultural, and economic practices. This necessitates the agricultural extension's approach transformation. As stated by Asenso-Okyere et al., (2008, p.23) "Moving from 'best practice to 'best fit'".

Gender roles paper (chapter 3) addresses the research question: How is this impact manifested specifically in gendered, agricultural labor relations in enset crop-based rural communities? This study provides an approach to be followed when a study is envisaged to understand the relationships between gender role and neo-liberal globalization of agriculture. This approach include (i) analyzing the prevailing changes on gender role, (ii) the influence of male migration that is associated with the current feminization of agriculture, (iii) the effect of technological changes from the modernization of agriculture on gender roles, as well as the overall changes in gender relations in farming communities, and (iv) whether social changes are occurring or not through policy changes that are influenced by neo-liberal globalization of agriculture.

The study reveals that gender roles in enset crop-based agricultural communities is influenced by both patriarchy and neo-liberal globalization of agriculture. Hence, this study has introduced a framework that can be used to analyze gender relations in the present traditional rural farming communities. The public-private dichotomy ((Dedeoglu,

2004; Connell 2000; Widerberg, 2000, Mohanty, 1997; Davidson and Freudenburg; 1996) that has been used by many researchers as a concept to analyze gender inequality in society does not hold true for the present traditional rural farming communities. The 'patriarchy-invisibility system' introduced by this study better explain gender relations in the traditional rural farming communities that are influenced by globalization, such as in the traditional farming system (i.e., enset-based agriculture) carried out by the Gurage ethnic group. Hence, the use of a particular concept individually, or in combination with other concepts, depends largely on the level of development of the society in question.

Moreover, the study reveals gender role shift as a result of agricultural governance that facilitated partnership among government agricultural offices, NGOs and farming communities enabled the involvement of women in development. Hence, "roles should not be assumed: there may be some changes or adaptation at a local level and the assumed role may not necessarily fit." (Flinton & Tedla, 2007, p. 4). Nevertheless, it has been observed that the policies and legal instruments in place have not made extensive social changes in respect to gender roles in traditional farming communities. Customary practices still persist in rural farming communities in the presence of positive policy provision on gender equality in Ethiopia. However, the study also reveals the existence of opportunities to change the existing situations. One of these opportunities is to scale-up the initiated mechanism for development through partnership among the different stakeholders mentioned earlier. In addition, conflicting ideas were reflected in the study on the influence of male seasonal migration on gender roles and on overall socio-economic situation of the rural farming communities. These include, a positive impact

because of the inflow of money from the outside and a negative impact on women's work load and on enset crop-farming and hence to the household food security.

Traditional Ecological Knowledge (TEK) paper (chapter 4) addresses the two research questions: 1) How do local enset crops contribute to the socio-economic and cultural vitality of rural farming communities? and 2) How have traditional farming culture and knowledge systems been affected, and mediated, the impact of neo-liberal globalization on enset-based rural farming communities? This study reveals how enset crop has contributed to the socio-economic and culture of the communities. Enset crop is important for food security, has cultural value as a food for festivals and play as a bride gift, birth gift, and serves as a status symbol. Furthermore, the traditional ecological knowledge of the communities has significant contribution to the survival of enset crop - based agriculture and hence to food security of the communities. Hence, the study reveals TEK as an invaluable resource for the communities particularly for communities, residing in marginal environmental conditions. Moreover, cultural practices have been maintained through traditional social networks, sense of place and sustaining family name (saving father's land). Furthermore, recent transitions have been observed in enset-crop production in response to globalization., including changes in cultural tastes (e.g. preference for maize); labor adjustments in response to male migration; resulting pressure on communities to aid families that are lacking in sufficient labor; and loss of youth engagement. However, the study also reveals cultural revitalization on food habit that has been observed particularly in the cities as a result of cultural integration and accommodation influenced by globalization. Nevertheless, it also reveals that the TEK of the communities and the traditional agricultural technology that were sufficient for the

production of food supplies for the then low population are not capable to sustain the same with the current prevailing population pressure and environmental degradation in the area. The study emphasizes the need for integrating TEK with scientific ecological knowledge.

Policy Implications

Policy support is required to support traditional farming communities in order to support them benefit from neo-liberal globalization of agriculture. The policies required need to be worked out considering the various scenarios existing in Ethiopia including the diversified socio-economic, cultures, and agro-ecological settings in the country. Nevertheless, one of the mechanisms to achieve the envisaged support is through local-global linkages. The details are presented in chapter 2. Policy needs to be formulated including the needs for integrating TEK and Scientific ecological knowledge (SEK), emphasizing the importance of linking formal and informal knowledge in enset crop agricultural development. Furthermore, the policy needs to capitalize the benefit of enset crop and TEK of the enset crop farming communities particularly emphasizing that more than 15 million people depend on the crop and poverty is increasing. The details are presented in chapter 3.

Suggestions for Future Research

Limited information is available on the socio-economic changes in traditional farming communities resulting from neo-liberal globalization of agriculture. The study reveals that with the influence of globalization which is inevitable with the current trend of integration of the country to the global economy as well as with the given population pressure and environmental degradation in the area, the local resistance to the disincentive in the production of enset crop and persistence in growing enset crop and the cultural revitalization experience will not be enough to counter the strong structural challenges currently facing enset crop production and revitalize the role of enset crop as rural farming communities food security. These necessitate the needs for changes to be made in the lives of the communities. Hence, the changes those have to be made need a thorough investigation. Furthermore, the current focus of the federal government is on cash crops and even the respective regional states follow the same trend despite enset crop is the major crop of the SNNPRS. The factors contributing to these approaches and why enset crop is not on the political agenda currently require further investigations.

A growing trend has been seen in *kotcho* consumption by those who, traditionally, were not in favor of eating *kotcho*. The food has gained popularity as one of the main categories of Ethiopian cuisine. Enset was once only seen in the south and southwestern regions of Ethiopia, in traditional places, but enset products are now becoming more commonplace in famous hotels of Addis Ababa. It is presented with dishes of minced meat, and is butter-flavored with chili (*kitfo*), served raw, and has its own category of Ethiopian cuisine. Currently, enset is commonly served at most wedding parties and on

other occasions, with *kotcho* and *kitfo* being served as part of the meal. Those who once refrained from eating *kotcho*, due to its pungent smell, have now adopted the practice of eating *kotcho*. At present, *bulla* is bought in Addis Ababa for women who have given birth. This practice is not only for Gurage women, but for any woman in the towns and cities of Ethiopia. Previously, *bulla* was only eaten directly from the stored pit, and fresh *bulla* was taken to the market as was *kotcho*. Today, in addition to the fresh variety, *bulla* is also prepared as a powdered form and may be spiced and even exported abroad. A detailed study is required to understand the factors behind these changes. Furthermore, in this study, clear variations were observed where women control *kotcho*, the major food source of the highland, and midland women partially control the major food source, maize. Further study is required to understand the basic reasons for the control, and whether or not the control extends to other food crops.

Concluding Remarks

Neo-liberal globalization of agriculture when used as a framework for analyzing socio-economic changes in rural farming communities tend to be taken as external force not related to the national agricultural policies. As stated by Buttel “causal forces such as agricultural policies that affect national agricultural systems as a whole...tend to be given little attention” (2001, p176-177). This case study reveals how agricultural policy influenced by neo-liberal globalization of agriculture intern influences the socio-economic changes in traditional farming communities in Ethiopia. It is my hope, future rural sociology studies particularly in the developing countries will give more attention to

the national agricultural policies when analyzing the current socio-economic changes in traditional rural farming communities.

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