THE CONTRIBUTION OF RESETTLEMENT PROGRAM TO SUSTAINABLE FOOD SECURITY: A COMPARATIVE STUDY OF INTER-ZONAL AND INTRA-ZONAL RESETTLEMENT SCHEMES IN DAWURO ZONE OF SNNPR

A THESIS PRESENTED TO:

THE SCHOOL OF GRADUATE STUDIES
ADDIS ABABA UNIVERSITY

IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE MASTER'S DEGREE OF ART IN REGIONAL AND LOCAL DEVELOPMENT STUDIES

BY

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JUNE, 2010

ADDIS ABABA

APPROVAL SHEET

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ACKNOWLEDGEMENTS

First of all, I wish to praise the almighty God who helped me to overcome all the challenges encountered in my life while exerting effort to become successful under this program.

My heartfelt gratitude is really to my advisor Dr. Ignatius Mebrengwa who advised me and devoted his precious time to make this thesis work successful. I really need to say once again, thank you Dr. Ignatius!

I also wish to express my gratitude to Tadewos Nedi, Dawuro Zone Food Security Coordination Office Head; Ato Tariku Messele, Essera Woreda Food Security Coordination Desk Head and Ato Getachew Doku, Tocha Woreda Agriculture and Rural Development Office Representative for their cooperation during interviews and facilitating household survey and focus group discussions with targeted groups. Furthermore, my appreciation goes to Ato Shimelis Tamirat, Dawuro Zone Trade and Industry Department Head and Ato Tsadiku Chachiro from Dawuro Development Association Office for their support in providing me with materials for the profile of Dawuro Zone.

In addition, I would like also to pass my thanks to the representatives of the study kebeles who participated voluntarily in focus group discussions; the development professionals and teachers who cooperated in filling the questionnaires; the SNNPR Finance and Economic Development Bureau statisticians who gave me the administrative map of the study area; Ato Barena Adare, Ato Ayisa Ariko, Ato Bezula Betela, Ato Jebero Genbero and Ato Taye Kinfe for their social, hospitality and assistance during field work in the study area.

Finally, I am glad to give my heartfelt thanks to my lovely spouse W/ro Birhanesh Batisa, my kids; Tseganesh Terefe, Ebenzer Terefe, Siketu Terefe and my sister Meseret Ayiso for their social, moral and spiritual support in all my strives to successfully complete this study.

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ACRONYMS

CSA : Central Statistical Authority

DZARDD: Dawuro Zone Agriculture and Rural Development Department

DFID : UK Department for International Development

DZFSCO: Dawuro Zone Food Security Coordination Office

DTID : Dawuro Zone Trade and Industry Department

EWARDO: Essera Woreda Agriculture and Rural Development Office

EPA : Environmental Protection Authority

EPRDF: Ethiopian People Revolutionary Democratic Front

FAO : Food and Agricultural Organization

FSCB : Food Security Coordination Bureau

IDRC : Canada's International Development Research Center

MDGs : Millennium Development Goals

MOEDC : Ministry of Economic Development and Coordination

MOFED: Ministry of Finance and Economic Development

MOI : Ministry of Information

NGO : Non Governmental Organization

PASDEP: Plan for Accelerated and Sustained Development to End Poverty

PSNP : Productive Safety Net Program

RRC : Relief and Rehabilitation Commission

SNNPR : Southern Nations, Nationalities and Peoples Region

TLU : Tropical Livestock Unit

TWARDO: Tocha Woreda Agriculture and Rural Development Office

TWFSCD: Tocha Woreda Food Security Coordination Desk

UNHCR : United Nations High Commissioner for Refugees

UN-OCHA: United Nations- Office for coordination of Humanitarian Affairs

WHO : World Health Organization

WFP : World Food Program

ABSTRACT

This study assesses the contribution of current resettlement program to sustainable food security for inter-zonal and intra-zonal resettlement areas in Dawuro Zone of SNNPR. Accordingly, the study employs comparative approach to assess the situation of resettlement program in contributing to food security to the inter-zonal resettlers, intra-zonal resettlers and host communities.

Two hundred fourteen (13%) sample households were selected for survey by using stratified and simple random sampling techniques in two kebeles of each of inter-zonal resettlement and intra-zonal resettlement areas and two host kebeles. In addition, focus group discussion with representatives of resettlers and host communities; key informant interviews and personal observations have been employed to this study.

Study results show that the consultation about the program was made with majority of resettlers and host communities prior to the implementation of the program and their movement to the new area is voluntarily based. The inter-zonal resettlers have been assisted with provision of different benefit packages until their first year harvesting, but intra-zonal ones have not been benefited from any of the government assistance except the provision of farm land. In addition, the minimum standard of basic infrastructure and social service facilities were not established either to inter-zonal or intra-zonal resettlers prior to the execution of a program and have not yet been improved. It was also noticed that households in both resettlement areas are exhaustively depleting forest for different purposes and they have not been advised to plant new trees and to use alternative options to reduce reliance on natural resources like forest.

Food availability and food access to household heads through crop production, livestock raring, bee keeping and their income status have been improved in inter-zonal and intra-zonal resettlement areas as well as to host communities after resettlement program. But agricultural activities and all income sources to household heads are entirely relied on rainfall which is highly vulnerable to shocks. On the other hands, the off-farm activities such as petty trade, handicrafts, agricultural labor work and food-for work programs which can generate additional income to household heads to promote their assets and to cope with adverse circumstances are hardly carried out by resettlers. The intervention of all concerned bodies is indispensable to reverse the problems related with resettlement and to enhance the diversification of income sources to households in the area.

Key words: Food security, resettlement, inter-zonal resettlement, intra-zonal resettlement, host community, off-farm activities, on-farm activities.

Chapter One: Introduction

1.1. Background to the Study

Resettlement program is one of the strategies experienced internationally which involves moving people from their origin in to new areas in principle to maintain food security. It might be in the way of inter-regional or intra-regional; inter-zonal or intra-zonal. In the case of inter-zonal, people can be relocated out of their respective Zones in the same region while intra-zonal resettlement is undertaken within the same Zone.

However, it is not only food insecurity problem against which people influenced to be displaced internationally from their origins, but development projects like dam and road construction, political calamity, industrialization and urbanization in the world in general and in Africa in particular also led people to be moved from their origin and resettled in other areas (Cook and Falloux, 1994; Berhanu, 2007).

For instance, the Volta Dam construction which started in 1962 in Ghana displaced 80,000 people and led some resettlers to be resettled in worse off areas while others were relocated in better off areas (Lawson, 1968; Kalitsi, 2004). In Nigeria, a dam constructed on Niger River and created the Jebba Lake caused a positive move to actively realign rural residents in to enjoying modernization effects by serving as a tool for accelerated rural development and a means for provision of infrastructure facilities that led to livelihood improvement of resettlers (Olawepo, 2008). On the other hand, dam constructions like the Kariba dam on Zambezi River caused forced removal for 57,000 Tonga people of Zambia and Zimbabwe on a massive scale from their homes and fertile lands and continued to reverberate the challenges to new generations who did not involve with it directly (Scudder, 1965).

In Ethiopia, mostly the food insecurity problem initiated the policy of encouraging voluntary resettlement. The first planned resettlement was carried out by the Imperial government in Sidamo during 1958. After the 1974 revolution, it became Derg policy to accelerate resettlement. As a result, during the period 1975/76, there were eighty-eight settlement centers accommodating 38,818 households in south and south west part of the country. The government conducted most of these resettlement programs under the auspices of the Relief and Rehabilitation Commission (RRC) and the Ministry of

Agriculture (Geatchew, 1989).

Subsequently, in 1984, the government announced its intention to resettle 1.5 million people from the drought-affected northern regions to the South and Southwest, where arable land was plentiful and had resettled more than 600,000 people in three resettlement areas like Wolega, Gambella and Pawe by 1986 (Library of Congress Country Studies, 2004). However, the government's ambitious program of combating food crisis through planned resettlement has failed by devastating famine once again to households (Getachew, 1989).

The current government of Ethiopia (EPRDF) launched a large-scale intra-regional resettlement program in 2003 which continued to 2006 with objective to resettle 440 household heads (2.2 million chronically food insure people) in Amhara, Oromia, Tigray and SNNPR from their various respective highland areas which are adversely affected with drought, land degradation, and shortage of lands for agriculture (New Coalition for Food Security in Ethiopia, 2003; PASDEP, 2006).

Within this program, the SNNPR government planned and resettled a total of 100,000 household heads within three years. The resettlers came predominantly from Eastern parts of the regional areas where population pressure is greatest and food insecurity is most chronic to the Western parts of the region, which were considered as possessing ample space with productive land (SNNPR Food Security Coordination Office, 2005).

Dawuro Zone in SNNPR undertook both inter-zonal and intra-zonal resettlement programs. About 3357 inter-zonal resettlers[1] were moved from other zones in the region and relocated at Essera resettlement area and 761 intra -zonal resettlers[2] were resettled at Tocha and Loma resettlement areas without leaving their zone (DZFSCO, 2010). In this regard, this study intends to assess the integration of inter-zonal and intra-zonal resettlement program with other food security strategies to enhance sustainable food security to households in selected resettlement and host community areas.

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[1] *Inter-zonal resettlers include people who have been relocated out of their respective zones.*

[2] *Intra-zonal resettlers include people who have been relocated within their respective zones.*

1.2 Statement of the Problem

Food insecurity in Ethiopia derives mainly from dependence on undiversified livelihoods based on low input and low output rain fed agriculture. As a result, most Ethiopian farmers do not produce enough to meet their consumption requirement (Devereux, 2000). Besides, long term factors such as population growth, environmental degradation, diminished land holdings, lack of on-farm technological innovations, and lack of off-farm income sources have led to a decline in productivity per household in the country (Workneh, 2008).

In order to find long term solutions to chronic food insecurity in four largely populated regions such as Amahara, Tigray, Oromia and SNNPR, the current Federal Democratic Government of Ethiopia launched the voluntary intra-regional resettlement program. The implementation document of the program states that the current resettlement program is based on basic pillars and principles such as purely voluntarism, the availability of underutilized land in receiving areas, establishment of minimum infrastructure facilities, consultation with host communities, proper preparation, etc. among others to ensure its success in enabling resettlers to ensure sustainable food security in new areas where they have been relocated (New Coalition for Food Security in Ethiopia, 2003).

Studies undertaken on the current resettlement experience seem to indicate that the program was hastily implemented without sound feasibility studies and minimal consultation with host communities. They also indicate poor social and physical infrastructure facilities in the resettlement areas, less consideration for environmental management, all of which contribute for the successfulness of the program (Kassahun, 2005; Dessalegn, 2005; Gebre, 2005). Although the purpose of implementing the resettlement program is to ensure food security for food insecure households in the country, they were unable to improve their livelihood through the current one hectare and below land holding which they have been given in new areas (Asfaw, 2005; Driba, 2005). In addition, there were some problems related to education, health, safe potable drinking water, road during implementation of the resettlement program in SNNPR (Wolde Sellasie, 2003; Mellesse, 2005).

The inter-zonal and intra-zonal resettlement programs which are implemented in Dawuro

Zone might encounter some of the problems revealed in all these studies during its implementation in other areas. These problems might be poor situation of infrastructure and social service facilities, the social tension between resettlers and host communities, lack of market links, the depletion of natural resources, etc in the area. In addition, heads of households might suffer from lack of diversified income sources, absence of on-farm technological innovations and rain fed farming system towards sustainable food security. Regardless of these challenges, the resettlement program also might help them to be graduated from their food insecure situations. But none of all these conditions has been assessed by any researcher in the area so far. Thus, this study intended to address the challenges related to the inter-zonal and intra-zonal resettlement program and its contribution to sustainable food security in selected resettlement and host kebeles.

In addition, most of the current studies undertaken on government sponsored resettlement programs focused on views of inter-zonal resettlers who moved from their origin to other receiving areas and host community and assessed only how the resettlement program has helped resettlers to be graduated from food insecurity problems. But it is also important to observe the integration of resettlement program with other food security strategies like productive safety net program and asset building strategies to contribute for sustainable food security to people relocated out of their origin as well as those who have been relocated within their origin (intra-zonal) that might be forced for relocation because of food insecurity as what happened to inter-zonal ones.

In this regard, this thesis examines the integration of inter-zonal and intra-zonal resettlement program with other food security strategies to contribute for sustainable food security from the view points of inter-zonal resettlers, intra-zonal resettlers and host community by employing a comparative research design which has not been considered by another researcher so far. Therefore, Essera inter-zonal and Tocha intra-zonal resettlement schemes with their respective host community kebeles are selected for this study. Some of the rationales for the selection of these study areas are the differences in nature of resettlement programs being implemented in the area; the absence of study that assessed the food security situations of household heads after the implementation of resettlement program and the exposure of the researcher to the area.

1.3 Objectives of the Study

1.3.1 General Objective

The general objective of the study is to investigate the contribution of resettlement program to sustainable food security to inter-zonal and intra- zonal resettlers in the area.

1.3.2 Specific Objectives

The study is intended to meet the following specific objectives:

a. To examine the participation of households in information exchange prior to the implementation of the resettlement program and their socio-economic relationship in the area.

b. To assess the food availability, access and utilization situations of inter-zonal and intra-zonal resettlers after the implementation of resettlement program.

c. To assess the coping strategies being used by household heads to handle the adverse circumstances in the area.

d. To examine the implementation of other food security strategies in inter-zonal and intra-zonal resettlement areas to enhance sustainable food security in the study area.

e. To suggest other necessary strategies to overcome the identified problems so as to improve the food security situation to household heads in the study area.

1.4. Research Questions

This research is intended to answer the following basic research questions towards the contribution of resettlement program to sustain food security in the study area:

a. How do resettlers and host communities perceive the implementation of resettlement program and socio-economic relationship between them?

b. How is the inter-zonal and intra-zonal resettlement program contributing to the productivity of on-farm and off-farm activities of households in the area?

c. What infrastructure and social facilities were undertaken by the government to enhance sustainable food security?

d. How is the environment managed to enhance the productivity of farm land in inter-zonal and intra-zonal resettlement areas?

e. What other food security programs and coping strategies are being used by household heads to sustain food security in the study area?

1.5 Significance of the Study

This study investigates the integration of resettlement program with other food security strategies to enhance sustainable food security. It is hoped that it will serve as a source of information for policy makers and other stake holders to take the appropriate remedies for making the program successful in achieving its intended short-term and long-term objectives. Besides, it will be used as a cornerstone for further research in areas that have not been observed in this study. The findings of this study will also help as a source of knowledge for resettlers and host communities to handle the challenges that they face in their attempt to sustain food security.

1.6. Research Methodology

This study utilizes comparative research approach to assess the achievements of resettlement program from the views of intra-zonal resettlers, inter-zonal resettlers and host community.

1.6.1. Sampling Technique

Stratified and simple random samplings among probability sampling techniques have been employed to this study to select representative household heads to survey. Though the households are homogeneous on the basis of their economic dimensions, this study considered the entire population as heterogeneous on the basis of their relocation. Thus, the stratified sampling technique has been used to stratify the population into three strata such as inter-zonal resettlers, intra-zonal resettlers and host community. Then 13% of the representative sample households from each of three stratum; inter-zonal resettlers, intra-zonal resettlers and host community to household survey have been selected by using simple random sampling technique. Accordingly, the Essera inter-zonal resettlement scheme consists of five resettlement sites (kebeles) such as Boyina, Manera, Yucha, Neda and Modi which are bounded by four kebeles of the host communities. From these resettlement sites, two resettlement kebeles such as Boyina and Manera kebeles and one host kebele known as Hageli 02 with their 13% respective household respondents were selected as a representative sample by using simple random sampling technique.

On the other hand, the Tocha intra-zonal resettlement scheme that consists of two resettlement kebeles such as Muga and Angella are taken entirely for household survey. From the two host kebeles that surrounded the intra-zonal resettlement kebeles, one host kebele known as Oda Gofa has been randomly selected. Then, 13% representative household respondents were selected from two intra-zonal resettlement kebeles and one host kebele by using simple random sampling technique for survey. Table 1.1 illustrates the size of total population of the study areas and the sample size selected from the entire population.

Table 1.1. Sample Frame and Size

Type of population	**Kebele**	**Population size**	**Sample size**
Inter-zonal resettlers	Boyina	203	27
	Manera	313	41
Intra-zonal resettlers	Muga	275	36
	Angella	264	34
Host community	Hageli 02	310	40
	Oda Gofa	277	36
Tota		1642	214

Source: EWFSCD, 2010; TWFSCD, 2010

From non-probability sampling technique, a purposive method was applied to select 8-10 members from each selected resettlement kebele and host community for focus group discussion. For key informants interviews, three food security coordinators; one from Dawuro Zone Agriculture and Rural Development Department, others from Essera and Tocha Woreda Agriculture and Rural Development Offices who are directly involving in the implementation of the program; were purposely selected to get the necessary information that can support the information obtained from household heads survey.

1.6.2. Sources and Types of Data

The data for this study are collected from both primary and secondary sources. Primary data gathered original facts from inter-zonal resettlers, intra-zonal resettlers, host

community and officials. Secondary data about the program are also retrieved from different official documents from DZARDD, EWARDO and TWARDO and published and unpublished references to support the reliability of primary data.

Besides, the data collected for this study included both quantitative and qualitative types. Quantitative data consist of the figurative variables while qualitative data include qualitative facts.

1.6.3. Data Gathering Instruments

The primary data required for this study have been gathered by employing such instruments as survey, key informants interview, focus group discussion and personal observation.

a) Survey

The structured questionnaire which consists of both open-ended and closed questions was prepared for household survey in English and translated into Amharic language to be easily understood by respondents (Annex 1and 2). Since it is time consuming to the researcher to administer data collection by him, six enumerators were recruited to record the responses of respondents for questionnaire; but all the required responses have been answered by respondents themselves. Before starting data collection, the enumerators have been trained on how they are going to approach the respondents and record their responses.

The questionnaires included both quantitative and qualitative information. The quantitative information consists of respondents' family size in respect to age, number of livestock they owned on the basis of TLU standard, farm land size, income, amount of crop production and other numeric variables. The qualitative information consists of perception of resettlers and host communities towards the program, the availability and function of different social and infrastructure facilities, supports provided by the government and other stakeholders, social integration, environment management, the involvement in on-farm and off-farm activities, etc.

b) Focus Group Discussion

Focus group discussion with 8-12 members of representatives from selected resettlers' and host communities' kebeles was also employed. Members of representatives were

selected on the basis of their responsibility in the kebele, sex, age and religion that specifically included the kebele leaders, religious representatives, elder female and male household heads, and representatives of youths. The structured guidelines that consist aspects on the availability and function of infrastructure facilities, the involvement of households on on-farm and off-farm activities, the socio-economic relationship, environmental management, the challenges related to resettlement program and coping strategies to handle adverse circumstances, etc have been designed to participants' discussion. This discussion was held with the aim to triangulate the responses of survey. The information shared during discussion was captured by recording in diary and tape recorder.

c) Key Informants' Interview

Three Food Security Program Coordinators from Dawuro Zone Agriculture and Rural Development Department, Essera and Tocha Woredas Agriculture and Rural Development Offices were selected for key informants' interviews. The interview held on the basis of structured interview guidelines composed of information exchange held with participants; the nature of resettlement program; the on-farm and off-farm activities undertaken by resettlers; assistance provided to resettlers; about the socio-economic relationship between resettlers and host community; the challenges encountered in implementation of the resettlement program, etc. The responses for interview questions have been administered by researcher through recording on diary and using tape recorder on the basis of the willingness of interviewee.

d) Personal Observation

The researcher has undertaken field observation of all kebeles selected for the study to examine the actual situation. The observed situations that exhibit what happened to areas as the result of resettlement program were recorded and photos have been taken to triangulate the necessary facts.

1.6.4. Data Analysis

The relevant data collected from respondents by using different mechanisms were organized and analyzed in two ways.

The quantitative data were analyzed using descriptive statistics by the help of Statistics Package for Social Science (SPSS) and central measurements like mean, range, and mode are generated. In addition, the percentage, frequency table, line and bar graphs were generated to analyze and describe data that facilitate discussions of cases. The qualitative data gathered from focus group discussion, key informants' interviews and household heads' survey through open-ended questions are summarized from tape records and diary are coded by categorical system and analyzed thematically.

1.7 Delimitation of the Study

This study is confined to Essera inter-zonal and Tocha intra-zonal resettlement schemes in Dawuro zone among other schemes in SNNPR. The main emphasis is on resettlers' sustainable food security situation and the social, economical and cultural relationships between resettlers and host kebeles around the resettlement sites after the implementation of the resettlement program. The study also examines the situations of host communities to sustain food security after resettlement program.

1.8. Organization of the Thesis

This study is organized under five chapters. The first chapter consists of the introductory part that includes the background to the study, problem statement, objectives, and research questions, significance of the study, methodology and delimitation of the study. Chapter two focuses on related literature in which basic concepts, conceptual frameworks, and international and national empirical evidences were reviewed and discussed. The third chapter gives the description of the study area while chapter four presents results and discussions. The last chapter consists of summary of findings, conclusion and recommendations.

Chapter Two: Literature Review

2.1 Introduction

This chapter deals with literatures related mainly to resettlement and food security. Therefore, the basic concepts and theories about resettlement and food security as well as the conceptual framework that reveals summarized issues about the study are discussed in detail. In addition, the empirical evidences about international and Ethiopian cases in resettlement and its success and failure to meet the intended objectives are deeply discussed under this chapter.

2.2. Basic Concepts

2.2.1. Concepts on Resettlement

Recently, resettlement has been defined by different scholars in different ways although the basic idea is the same. National Resettlement Conference (1995), defined resettlement as a planned supported process of change in an accommodation context. In addition, resettlement is defined as the process by which people are enabled to live as full life as possible within an appropriate form of housing (Simon Community of Ireland, 1994).

UNCHR (2006) has also defined resettlement as the process which commences with the selection and transportation of people and continues through to their reception and integration in the host community due to various factors. Besides, resettlement has been defined as the phenomenon of population redistribution either in planned or spontaneous manner; relocating people in areas other than their own for the purpose of converting transient populations, nomadic pastoralists, transhumant or shifting cultivators to a new way of life based on sedentary forms of agricultural production (Dessalegn, 2003). These two definitions are adopted in this study in which the current government sponsored resettlement program that designed to relocate chronically food in secured people is discussed in detail.

In relation to different definitions given to the resettlement, Gebre (2004) identified four major types of relocation /resettlement.

Voluntary resettlement: Occurs when the migrants have the power to make informed and free relocation decisions and the willingness to leave their original place.

Induced-voluntary resettlement: Is movement of people that takes place when people leave their home place to resettle elsewhere due to deliberate acts of inducements coming from outside agencies. Although the migrants may maintain decision-making power, the facts on the basis of which their decisions are made are provided and analyzed by other agencies.

Involuntary resettlement: Refers to the forcible uprooting of people from their original place of residence. The agents of force could be natural disasters and/or humans.

Compulsory-voluntary resettlement: Is the resettlement that occurs when people embrace forced removal out of desperation, and when voluntarily resettled people are denied the right to leave the resettlement area.

2.2.2. Concepts on Food security

Food security exists when all people, at all times have physical and economic access to enough safe and nutritious food to meet their dietary needs and food preferences for an active and healthy lifestyle (World Food Summit, 1996).

Accordingly, for the households to be food secure the following conditions to be fulfilled (FSCB, 2004; FAO, 2008).

Food availability/supply - Addresses the "supply side" of food security and is determined by the level of food production, stock levels and net trade.

Food access/ affordability – Refers to the ability for all members of society to obtain sufficient food for healthy living. When there is a food prices increase and while richer people will likely still be able to feed them, poorer people may have difficulty obtaining sufficient safe and nutritious food without assistance.

Food utilization – Refers to the preparation of sufficient and varied food needed at the household level safely so that they can grow and develop normally, meet their energy needs and avoid diseases.

Declining vulnerability to shocks- refers to asset protection through different off-farm

activities such as petty trade, handicrafts, timely safety net program, agricultural labor employment, etc.

2.2.3. Sustainable Food Security

As sustainable development, there is no precise, universally accepted definition of sustainable food security. According to FAO/WHO (1992), sustainable food security can be defined as the food security situation that requires secure ownership or access to food resources and income earning activities, including reserves and assets to offset risks, to ease shocks and meet all contingencies in consistent manner or an access by all people at all times to the food needed for a healthy life.

Harmon and Gerald (2007) define sustainable food security as one that provides healthy food to meet current food needs while maintaining healthy ecosystems that can also provide food for generations to come with minimal negative impact to the environment. A sustainable food security also encourages local production and distribution infrastructures and makes nutritious food available, accessible, and affordable to all.

Sustainable food security is broader than sustainable agriculture that fuses both households' food security and sustainable agriculture. It requires not only the aggregate supply of food but also income and land distribution, households' livelihoods and dietary needs, women's status and their opportunities, fertility and population issues and the protection and regeneration of the resource base for food production (Speth, 1994).

From all the above definitions, this study summarizes the operational definition of sustainable food security as the consistent availability, access, affordability and utilization of the food need to all current people at any time while maintaining the ecosystem that can also provide the consistent food for the new coming generations. In this regard, this study argues that the resettlement program that entirely focuses on agriculture alone may not ensure sustainable food security unless it is integrated with other strategies such as productive safety net program and asset building/protection strategies which will help people to cope with adverse circumstances that interrupt their attempt to sustain food security.

2.2.4. Food insecurity

According to Devereux (2000), food insecurity incorporates low food intake, variable access to food, and vulnerability in which a livelihood strategy that generates adequate food in good times but is not resilient against shocks. The same source also indicated that there are three forms of food insecurity which are endemic in Ethiopia such as chronic, cyclical and transitory food insecurity. The main triggers of transitory food insecurity in Ethiopia are drought and war. Seasonality in crop production is a major cause of cyclical food insecurity. In addition, factors that contribute for chronic food insecurity include poverty (as both cause and consequence), the fragile natural resource base, weak institutions (notably markets and land tenure) and unhelpful or inconsistent government policies.

2.3. Theoretical Perspective and Conceptual Framework

2.3.1. Theoretical perspective and Conceptual Framework on Resettlement

Theories which are capable to explain how displacement may lead to social and economic impoverishment are very essential to minimize the risks associated with the displacement of people from their origin to new area. In this regard, different scholars conceptualized the displacement of people by using different approaches.

Some of these are:

i) Scudder's (1985) dynamic model of resettlement;

Ii) Impoverishment Risks and Reconstruction (IRR) model of Cernea (1999) and

iii) Inadequate Input and Inherently Complex Approaches proposed by Dewet (2004)

i. Scudder's Dynamic Model of Resettlement

Scudder's Dynamic Model of Resettlement states that displacement has to be conceptualized in terms of phases or stages such as planning and settlement recruitment, transition, potential economic and social development, and handing over and incorporation (Scudder, 1985). However, all displacement projects are not required to pass through all four stages. Thus, the Scudder's model cannot consistently conceptualize different resettlement projects in different schemes because of their difference in nature.

Scudder's model was initially developed to the voluntary resettlement schemes and latter extended to involuntary resettlement because of structural, cultural, and political differences between these two types of resettlement schemes to which the model can never be applied consistently. In general, the model of Scudder has been criticized to be of limited value to be employed in different context of displacement in different countries (Mahapatra, 1999).

ii) Impoverishment Rrisks and Reconstruction Model

According to Cernea (1999), the impoverishment risks and reconstruction model states that the displacement of people linked with potential impoverishment risks which require defining the key determinants of income reconstruction to encounter them.

Subsequently, there are eight potential impoverishment risks associated with displacement such as landlessness, joblessness, homelessness, marginalization, food insecurity, increased morbidity and mortality, loss of access to common property, and social disarticulation (Ibid) and loss of education added by Mahapatra (1999). To encounter the economic, social and cultural convergence of these risks, Cernea's model (1999) has also designed a risk management strategy known as "positively re-establish" those displaced. Shortly, to restore and improve the livelihood of displaced people, the matrix of risks has to be reversed. For instance, landlessness risks should be eliminated through land reestablishment; homelessness through sound shelter program; joblessness through employment creation; social disarticulation through community reconstruction and host community inclusionary strategies; etc.

In general, the model of Cernea (1999) assumes that the movement of people to new areas will be successful in the presence of adequate planning and implementation, monitoring and the availability of sufficient fund to reverse the impoverishments. However, the fulfillment of all these economical and technical conditions might not ensure the success because people may face socio-economic changes that may be entirely beyond their capability to cope in the new areas (Dewet, 2004). As a result, they may fail to adapt the new environment. Therefore, considering only the viability of economic, social and cultural dimensions might not be sufficient to determine the success of displacement of people to new areas.

iii) Inadequate Inputs and Inherently Complex Approaches

According to DeWet (2004), the success of resettlement program depends on due consideration of both Inadequate Input and Inherently Complex approaches inclusively. The Inadequate Input approach assumes that resettlement program can go wrong in absence of proper inputs like national frameworks and policies, political will, funding, pre-resettlement surveys, proper planning, consultation, careful implementation and monitoring. According to DeWet (2004), lack of these inputs lead to eight impoverishment risks determined by Cernea(1999) and loss in education which is added as another impoverishment risk by MahaPatra (1999).

Thus, the Inadequate Input approach suggests that the viably conceived, planned and implemented displacement will not have adverse effects on the people concerned. On the other hand, if the plan and implementation for the program designed poorly, the resettlement program may exacerbate the harm on participants.

However, some people criticized that it exclusively focuses on economic and technical factors to the success of resettlement program (Koening, 2001, cited in DeWet, 2004) because of its due attentions on presence of proper policy, political will and appropriate funding to overcome the problems in inadequacy of inputs and to reverse the impoverishment risks in to opportunities that can make resettled people better-off than before.

In contrast to Inadequate Input Approach, the Inherently Complex Approach views resettlement as a complex and problematic undertaking by its very nature (DeWet, 2004). According to Inherently Complex approach, the frequent failure of planned resettlement is essentially related to its unique characteristics of involuntary that can impose changes in socio-economic and political, access for resources, and accelerated socio-economic changes that may be beyond the capacity of people to cope with it. Thus, DeWet (2004) argues that the combination of all these factors tends to lessen people's material well being, increase the level of social tension and conflict and reduce their control over the changed circumstances.

In addition, according to Smith (1996), cited in Asrat (2006), resettlement often imposes forces and conditions on people that may completely transform their lives, evoking profound changes in environment, productive activities, social organization and interaction, leadership and political structure, and ideology. Moreover, the various actors involved in the schemes with their different interests and motives, the varied circumstances under which resettlement takes place, the relation between various stakeholders and other factors contribute to the complex nature of resettlement. Therefore, DeWet (2004) argues that in addition to the technical and economical factors, it is apparent to consider about open-endedness and flexibility to manage the complexity of resettlement program in nature.

This particular study employs both "Inadequate Input" that related to Cernea's Impoverishment Risks and Reconstruction model and "Inherently Complex Approaches" to assess the adequacy of inputs deployed during the implementation of resettlement program and strategies used to improve the wellbeing of resettlers and reduction of social tension and conflict in the study area. In this regard, these two approaches are considered in assessing the successfulness of resettlement program in its integration with other food security strategies to enhance the pillars of sustainable food security in the study area. The conceptual framework that exhibits the integration of the three food security program strategies and the pillars is stated and discussed in the following section.

2.3.2. Theoretical Perspective and Conceptual Framework on Food Security

Ethiopia is the world's most food aid dependent country. Although food aid is a standard response to transitory food insecurity like for drought and emergencies, in Ethiopia it has become an institutionalized response to chronic food insecurity. During the past decade, more than five million people on average have required food aid each year even during years of seemingly normal weather and market conditions. For instance, over the past fifteen years, an average of 700,000 metric tons of food aid per annum have been imported to meet food needs in Ethiopia (FSCB, 2004). Moreover, a weak belg[1] harvest in Ethiopia caused a significant increase in the number of individuals that are in need of emergency

[3]*Belg is a rainy season when agricultural crops are harvested.*

food assistance from 4.9 million individuals at the beginning of 2009 to 6.2 million individuals at the end of the year. As the result, the Ethiopian government has procured 66,060 million tons of maize, pulses and vegetable oil directly and through World Food Program (WFP) existing in Ethiopia and distributed to 1,000,000 people in the country over a six month period to reverse the problem (International Federation of Red Cross and Red Crescent Societies, 2009).

This is because of the lowest agricultural productivity in Ethiopia among others in the world i.e, around 1.2 tons per hectare because of the dependence on unreliable and low-productivity rain fed agriculture (World Bank, 1999). In this regard, the primary determinant of household food insecurity in Ethiopia were intended to be managed by enhancing access to agricultural inputs such as fertilizers, draught oxen with implicit assumption that household food security can be achieved by increasing food production on individual farms (MOFED, 2002). However, increase in food production highly related with farm land size and family members. Because it might be possible to make yields higher through agricultural intensification but the "average land holdings" would be insufficient to feed a family of 5 members even if production could be successfully increased three times with the use of improved technology (Masefield, 2001). Accordingly, in the same report it was proposed that the estimation for minimum land size required by a family of five in relatively low potential area must be at least greater than two and a half hectares.

The current government of Ethiopia has given due attention to tackle the problem of food insecurity in the country through various development strategies. Accordingly, the government has designed food security program with main objectives stated in its development document (PASDEP), issued by (MOFED, 2006: 93-94) as follows:

> *The Food security program is designed to address problems of shortfalls in food production, vulnerability to falls in consumption and incomes and consequent hunger that the country has faced repeatedly, through adaptation of development alternatives to bring about lasting solution. The effort to reduce vulnerability is*

central to the five years plan strategy (2005/06- 2009/10): including measures to reduce the variability in crop production and overall food availability – through more irrigation and water control, diversification of crops, and better integration of markets, transport, and information links; maintenance of macroeconomic stability; expansion of off-farm employment and income-earning opportunities, and better functioning credit markets; provision of improved health services and nutrition; introduction of innovative measures, such as experiments with crop and weather-based insurance mechanisms.

2.3.2.1. Livelihood Strategies and Food Insecurity

Livelihood is defined as adequate stocks and flows of food and cash to meet basic needs (Elliott, 1994). According to Masefield (2001), livelihood is defined as the capabilities, assets (including both material and social resources), and activities required for a means of living. According to him, livelihood assets include human capital (education, knowledge, skills and health of house hold members), physical capital (farm implements roads, markets, schools, clinics, etc.), social capital (social networks, associations such as family and community), and financial capital (savings, credit, cattle, etc.) and natural capital like natural resource base such as land.

According to Scoones (1998), rural livelihood strategies include agricultural extensification (increasing farm size) and intensification (raising farm yields), income diversification (off-farm economic activities such as daily labor, petty trade, food for work program, handicrafts, etc). These off- farm activities can help rural households to diversify their income to cope with shortfalls of agricultural production and adverse circumstances (Yared, 2001).

2.3.2.2. Conceptual Framework toward Sustainable Food Security

The food security program (FSP) that devotes sufficient attention and funds for strengthening asset accumulation, preservation, alternative sources of income, and access to market at the household level can appropriately address the critical facets of household livelihood security in low resource areas (Yared,2001). Appropriately designed and implemented livelihood strategies and intervention can build four pillars of sustainable

food security such as food availability, food access, food use and decline in vulnerability to shocks for helping the household heads toward sustainable food security.

Sustainable food security is based on the following four pillars which can be achieved through three interdependent strategies/interventions (FSCB, 2004):

Food availability: This can be attained by improving the rural food production especially by small scale farmers through increased on-farm, cash crops, livestock production and productivity, investing in rural markets, enhancing income and other entitlements to food, investing in rural infrastructure, resource habilitation and conservation. According to Sadoulet and Janvry (2005), cited in Nichola (2006), food availability is estimated as a given percentage of production.

Food access: This can be improved through increased income from cash crops, strengthening labor markets, ensuring access to land, enhancing access to assets, re-establishing rural institutions, reviving rural financial systems, social rehabilitation programs, livestock sales and off-farm income generating activities.

Food utilization: This is a way the body makes the most of various in nutrients in the food. It also refers to sufficient energy and nutrient intake by individuals through good care and feeding practices, food preparation, and diversity of the diet and intra-household distribution of food. It can also be improved through health and nutrition intervention.

Decline in vulnerability to shocks/ stability: through asset protection/promotion through help of off-farm activities, timely safety net intervention, reviving access to credit system and saving mechanisms, monitoring food security and vulnerability and diversifying agricultural activities and employment.

According to FSCB (2004), the above four sustainable food security pillars that promote sustainable food security might exist with the integration of the following three interdependent food security strategies/interventions:

a) Resettlement program: The resettlement program which is based on sound planning and implementation (Inadequate Input Approach) and minimizing its very complex and problematic nature (inherently complexity approach) is one of the food security strategies that can support the pillars with the selected outputs. Some of the outputs related with

resettlement program are information shared with resettlers and host communities, sites selected appropriately, household heads identified and resettled, land provided and support given for cropping and gardening, livestock production supported and oxen provided for ploughing, social services established and made functional, environmental protection assured and monitored, etc (Ibid).

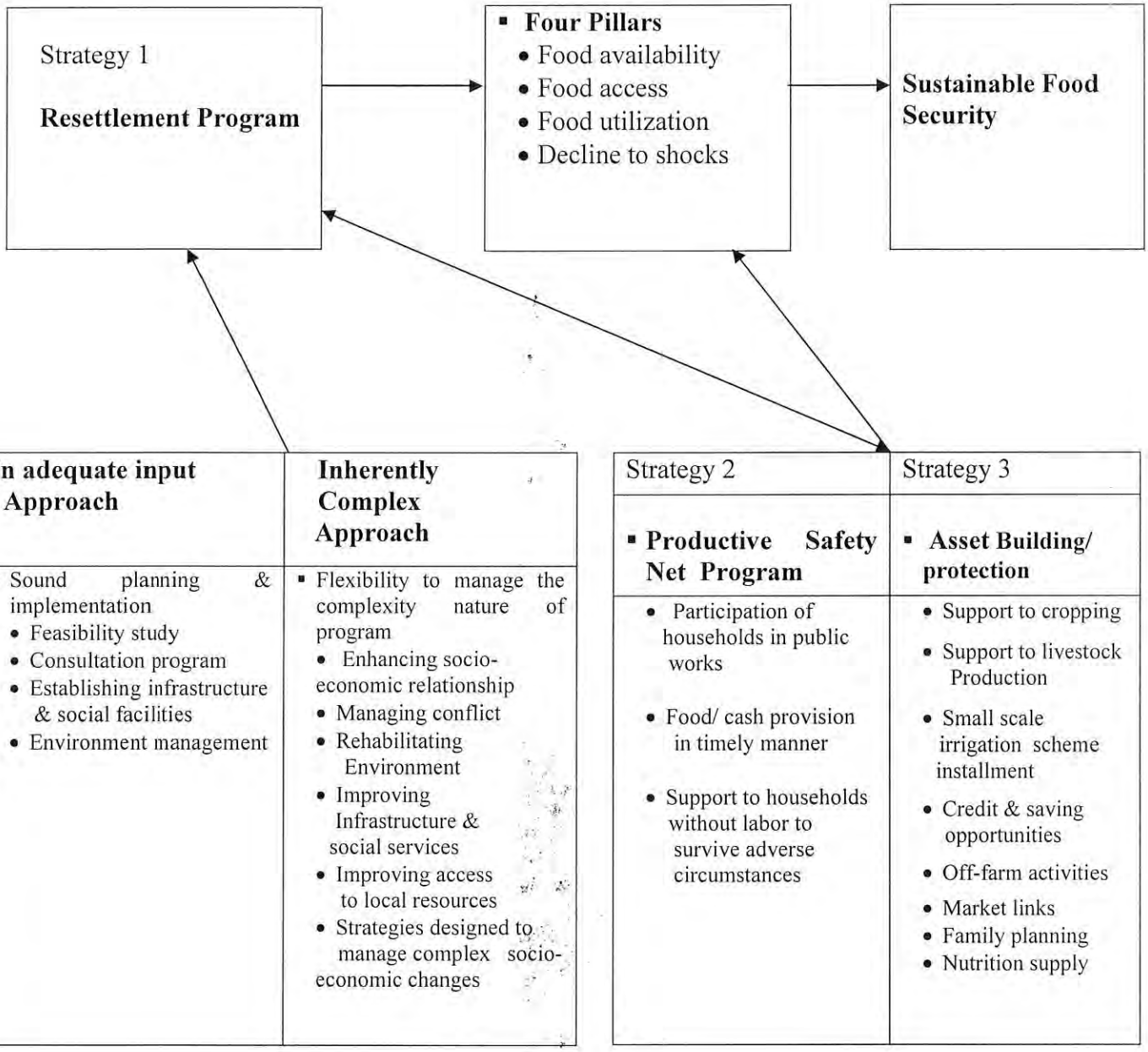
b) Productive Safety Net Program (PSNP): The PSNP as a component of the food security strategy is designed to integrate with other food security programs and broad development interventions to create a conducive environment to lay the ground for future productivity improvement in rural communities (Workneh, 2008). The objective of PSNP is providing cash and/or food transfers to chronically food insecure households in ways designed to prevent asset depletion at the household level while creating assets at the community level. In addition, the program will address chronic food insecurity while simultaneously requiring households to engage in sustainable productive activities and promoting market development by increasing household purchasing power (ibid).

The PSNP consists of two components: (i) Labor-intensive public works for those households who can contribute labor for selected and designed activities on the basis of local priorities and opportunities. (ii) Direct support for labor-poor households. The public works element is basically meant for community asset building including the rehabilitation of natural resources e.g. land, water and vegetation. The direct support component will help those who cannot participate in public works (i.e. elderly, chronically ill, etc.). The program is designed to serve as leverage for chronically food insecure households to graduate to food secure status and to be able to participate in development activities designed to boost food availability and access (Ibid).

c) Asset building/ protection: This intervention is based on giving support for cropping through distribution of fertilizers, varieties of better seeds and supporting livestock production improvement. In addition, developing water resource and installing irrigation system, introducing opportunities for credit and savings, promoting off-farm income generation through handicrafts, petty trade by creating market links, enhancing family planning service to manage population growth and supplying maternal and children

nutrition and training households on diet intake practices, etc.(ibid).

Thus, the following diagram clearly shows the integration among the components of food security program for enhancing the four pillars that sustain food security.



Adapted from FSCB, 2004.

Fig. 2.1. The Conceptual Framework for Sustainable Food Security

2.4. Empirical Studies on Resettlement Program

2.4.1. International Experiences in Resettlement

Resettlement or displacement of people from their origins to new areas due to various reasons has international experiences. According to Cook and Falloux (1994), the causes of involuntary displacement for a large number of people are due to war or prolonged hostilities between countries or groups within the country; irreversible environmental degradation and development projects which displace people to take a place. However, development projects like construction of large dams for farming and provision of hydro-electricity, road and rehabilitation programs have a lion share in aggravating the displacement or resettlement of many millions of people across the world. According to Berhanu (2007), the development projects that displace people from their origin to new areas in the world are initiated by economic mobility, industrialization and urbanization, war, ethnic strife and natural calamities such as drought.

For instance, the resettlement program initiated by the dam construction in China and assisted by the World Bank involuntarily displaced 180,000 people and attempted to protect their livelihood by restoring and improving their income with new lands development; construction of housing and provision of other basic facilities (Jing, undated) . In addition, the Keban dam construction in Turkey caused involuntary displacement of 30,000 people; Ubolratana dam in Thailand has also displaced 30,000 people from their origin to new area, and the Pamong project in Vietnam uprooted 450,000 people (Goldsmith and Hildyard, 1984).

Furthermore, the Indonesian government has developed the resettlement program to ease the overcrowded conditions by shifting the landless farmers to less densely populated islands. The Kedung Ombo dam construction in Indonesia also displaced 5200 households (23,000 people) from their origin. However, the resettlement practice adopted in the country has produced poor results because of: i) lack of adequate baseline information; ii) inadequate resettlement planning; iii) lack of consultation and participation of affected people; iv) budgetary shortfalls; v) inadequate institutional capacity; and vi) weak monitoring programs(Zaman,2002).

In Africa the most important displacements are not only caused by development projects but also social and political cases such as civil wars, ethnic, racial and religious persecutions and natural calamities such as droughts and famines play a great role. These factors have displaced millions of people to cross international borders as "international refugees" to get protection, shelter and food in other country or "internal refugees" that remain within boarder of their countries but have abandoned their houses and lands. The displacement would not only expose the displaced people to poverty and starvation but also the host communities might be exposed to enormous burdens such as lower standards of living and rapid depletion of natural resources (Cernea, 1997,cited in Berhanu, 2007).

In Africa continent, some low cost and smallholder settlement schemes undertaken because of the Mwea irrigation project in Kenya and the Gezira scheme in the Sudan are successful program among others in Africa (Chambers and Moris, 1973, Cited in Dessalegn, 2003). However, out of the hundreds of settlement programs undertaken in Africa, Asia and Latin America in the decades since the 1960s, only a handful have been judged to be successful due to poor planning and implementation (Dessalegn, 2003).

In general, the international experiences show that different development projects, political cases and natural calamities influenced people to be displaced from their origin to either successful or unsuccessful new resettlement areas.

2.4.2. Ethiopian Experience in Planned Resettlement Program

2.4.2.1 Resettlement during Imperial Regime

The planned resettlement was started in Ethiopia for the first time during imperial regime in the 1958. During this period, the project involved a combination of spontaneous and planned settlement programs which accommodated 700 farmers from the populated upland areas of the country and were settled in western Ethiopia and the Rift valley areas (Dessalegn, 2003). At that time state-sponsored-resettlement was largely undertaken to promote two objectives. The first of these was to rationalize land use on government "owned" land and thus raise state revenue. The second was to provide additional resources for the hard pressed northern peasantry by relocating them to the southern regions (where most government land was located) and which was mainly inhabited by "subordinate

populations''. According to Pankhurst (1992), cited in Asrat (2006), the program was seen as viable because it was believed that it would expand the farmed area of the country and thereby increases gross agricultural production. The imperial also recommended a program as a means of creating employment and solving the problem of the growing excess labor force because it comprised landless peasants, evicted tenants, pastoralists and shifting cultivators, urban unemployed and ex-servicemen for whom the program has given opportunities of farming.

However, the resettlement program of the imperial regime failed to meet its intended objectives because of the high costs of the program, low rate of success, and the less viability of a number of schemes in the Rift valley, Kaffa and Gamo Goffa (Dessalegn, 2003). In addition, Dessalegn argues that the difficulties in resettlement during that time stemmed from inadequate planning of programs, inappropriate settler selection, inadequate budgetary support, and inexperienced staff who engaged in implementation of the program.

2.4.2.2. Resettlement Program during Derg Regime

After the 1974 revolution, the military government of Ethiopia started to use policy for accelerating resettlement under the auspices of the Relief and Rehabilitation Commission (RRC) and the Ministry of Agriculture. Subsequently, the government announced its intention and resettled people from the drought-affected northern regions to the south and southwest of the country where arable land was plentiful (Library of Congress Country Studies, 2004).

In 1985 the Derg government also initiated a new relocation program known as villagization to replace the resettlement program because of its failure to meet the intended objectives. The objectives of villagization program was to group scattered farming communities throughout the country into small village clusters to promote rational land use; conserve resources; provide access to clean water and to health and education services; and strengthen security. Government guidelines stipulated that villages were to house 200 to 300 households, with 100-square-meter compounds for each family (Ibid). However, the scheme was disruptive to agricultural production because the government moved many farmers during the planting and harvesting seasons. It also had a negative impact on fragile

local resources, particularly on water and grazing land; accelerated the spread of communicable diseases; and increased problems with plant pests and diseases. As a result, in early 1990, the government essentially abandoned villagization when it announced new economic policies that called for mixed- economy reforms and a relaxation of centralized planning (Ibid).

However, according to Dessalegn (2003), at the end of the period of Derg regime, the cost in human lives and resources was immense as reported as follows:

> *Some 33,000 settlers lost their lives due to disease, hunger, and exhaustion. In addition, untold number of families was destroyed and for many years after, a number of NGOs were still engaged in attempting to reunite thousands of children who had been separated from their parents at the time of resettlers relocation.*

In addition, the resettlement program during Derg regime encountered some limitations (MOI, 2001). These limitations include lack of the consent and willingness of the settlers; additional objectives of assuming the security of the distant peripheries by relocating people from other regions which created unnecessary suspicion and conflict between people and its state of urgency implementation without integrating with other overall development activities of the resettlement areas. As a result, the program failed to meet its intended objective of food security to households.

2.4.2.3. Empirical Studies on Post 1991 Resettlement Program

The EPRDF government of Ethiopia also launched the resettlement program for the third time in 2003 to mitigate chronic food insecurity problem in the country. Accordingly, the government prepared the implementation manual to safeguard failure in program. This official resettlement program document stated that the program is based on basic pillars and principles such as voluntarism, consultation with host communities, establishment of minimum infrastructure facilities and others to guide the implementation of a program that makes it unique when compared with resettlement program undertaken during Imperial and Derg regimes (The New Coalition for Food Security in Ethiopia, 2003).

However, various researchers who conducted their study on various situations of current resettlement program argue that some of the pillars lack clarity and the implementation of a program was highly spontaneous when compared to the experience of other countries which are successful in implementing the resettlement programs. For instance, some argue that the pure voluntary option principle of resettlement would be linked to involuntary resettlement because if some forces like poverty and absence of any choice in their life were not imposed on the people, they would not want to leave their place of birth and separate from kin groups and relatives (Mellese, 2005; Gebre,2005).

In addition, Misganaw (2005) suggested in his report as it was preferable to prioritize the areas of people's origin for rehabilitation to ensure food security and rural development in Ethiopia in general and in drought prone areas in particular rather than displacing them from their area of origin because of weak capacities of institutions at regional and woreda levels to appropriately implement the program might repeat the same problems of other areas of overcrowded population and environmental degradation to the new ones.

Gebre (2005) and Masresha (2008) reveal that the participation of host community in current government sponsored resettlement program is limited. In their study, they report that the resettlement sites were selected by higher officials without the consent of the host community and the kebele administrators in the area and most people in the sending areas were not given complete and genuine information about the resettlement.

Feleke (2003) observed that duration for the implementation of a program was shorter and spontaneous when compared to the experience of other countries which were successful in implementing the resettlement program. According to Angeli (1992), cited in Feleke (2003), Indonesia which was arguably labeled as successful was able to resettle 771,000 people on annual basis from 1905-1977; India is reported to have resettled 31,000 and Brazil resettled 7,000 families on an annual basis. When these countries are compared to Ethiopia, all of them have got better infrastructure facilities and the number of people that they resettled is extremely lower than that proposed and resettled by Ethiopia during three year period. Besides, Dessalegn (2003) stated that the government's estimation for "self reliance" of people through resettlement was highly unrealistic and he proposed 8 to 10 years for the implementation of the project. In the same report, he divided the duration as

first phase (2 to 3 years) in which some adjustments would be undertaken, second phase (3 to 5 years) a period for consolidation, and third phase(5 to 8 years) for sustainable progress.

According to Assefa (2005), on the basis of the study undertaken in different resettlement sites in Ethiopia, forest and wild life resources were not protected and also the resettlers have not been provided with education and advice contrary to what has been set out in the resettlement program implementation manual. As the result, different cultural practices of resettlers in dealing with land and forest resources and the fragility of ecosystem of the resettlement areas will cause eminent future threat.

Furthermore, other studies conducted by Asfaw (2005) and Masresha (2008) reported that the current program was implemented hastily and without appropriate feasibility study and poor establishment of minimum infrastructure facilities. Diriba (2005) and Solomon (2005) indicate that resettlers have been provided with 0.3068 hectare to 1 hectare per household which was quite less than what was stated in the program implementation manual.

According to Pankhurst (2005), on the basis of his study from the experiences of 11 different resettlement sites in four regions and others, resettlers especially hard workers and youths exhibited success by engaging in various on-farm and off-farm activities.

In relation to the resettlement program designed by the Federal Government of Ethiopia, the SNNPR government planned and undertook both inter-zonal and intra-zonal resettlement programs within the region. Accordingly, some studies have been carried out by some researchers to assess the situations of resettlement program in the region. Wolde Sellasie (2003) observed different resettlement sites in the region during implementation period and reported that people who resettled in different sites were complaining of delays in provision of oxen, agricultural hand tools, utensils, absence of health services, inadequacy of shelter, etc. The same study also reported that some of the local authorities at the zonal and special Woreda levels were in a dilemma whether to implement the program without or to cautiously refrain from taking hasty actions because of the absence of resources and lack of capacity. In addition, Mellese (2005) has conducted study in

Wolayita intra-zonal resettlement area in the region and concluded that the program preparation was inappropriate and implemented hastily with constraints of financial, material and skilled human resources. So these are some of the evidences to say that the implementation of the program in the region was spontaneous.

Ayke (2005) has conducted study at the Salamago resettlement scheme in South-Omo Zone. He reported that the suitability of new area for human habitation where self-initiated resettlers have been relocated is a prospect to ensure food security to households in the area though they encountered challenges in infrastructure and social service facilities. But the suitability of the area by itself will not contribute for food security unless infrastructure and social facilities, diversity of on-farm and off-farm activities have been introduced to household heads.

Although there is no comprehensive study that reveals the conditions of inter-zonal resettlement undertaken in Essera woreda by the government of SNNPR, the study by Eshetu (2009) has reported the land use conflict among resettlers and host communities. He assessed the condition of land use conflict among the host communities and resettlers by taking one resettlement site among five sites in the woreda. The study also indicates that the inappropriate plan for land use and its inadequate handling caused conflicts and created a hostile relationship among the host communities, resettlers and the woreda administrators.

To sum up, this and other studies have not addressed whether the inter-zonal and intra-zonal resettlers in Dawuro Zone are in better condition towards sustainable food security or in question after the implementation of resettlement program. In addition, all the studies under taken in area of resettlement program were focused only on the effect of resettlement program, but its integration with other food security strategies to sustain food security has not been addressed by employing the comparative research approach in the country in general and in my study area in particular. Thus, this study was designed and conducted to fill the gap.

Chapter Three: Description of the Study Area

3.1. Introduction

This chapter deals with background of the Dawuro Zone in which the study was carried out. Special emphasis was given to the administrative history of the area at different regimes, its geographical location and agro-climatic conditions, population of the area and its cultural heritage, agricultural activities, the natural endowments and the investment potentials of the area, the current resettlement programs of the country and the profile of specific areas hosted both inter-zonal and intra-zonal resttlers.

3.2. Geographical Location and Demographic Profile of Dawuro Zone

Dawuro is one of the 13 zones in SNNPR after the restructure of zonal administration was made in 2000. The capital of Dawro zone is Tarcha and is located about 438 kilo meters via Hossana to South West of Addis Ababa, 280 kms to the West of Hawassa, the regional state's capital, and 140km to south east of Jimma city. It is situated 7° 14' North latitude and 37° 5' East longitude. River Gojeb delimits the area from Jimma Zone of Oromiya region in the north; Omo River demarcates Dawuro from Kembata Tembaro Zone in the north east, Wolayita Zone in the east, and Gamo Gofa Zone in the south. In the west, Konta Special Wereda is adjacent to Dawro sharing Chabara -Churchura National Park which consists varieties of wild life in common (Dawuro Zone Trade and Industry Department, 2010).

The total population in the Zone is 492,742 of which 250,742 are male and 242,000 are female (CSA, 2007). People from different parts of the country, for instance, Amhara, Gurage, Oromo, Wolayita, Hadiya and Kambata were assimilated with local people through marriage, religion, etc. The local people speak dominantly "Dawuregna" language, the vernacular of Dawuro people which is currently used as medium of instruction at 1st cycle primary school throughout Zone. In addition, Dawuro people have their own marriage, funeral ceremony, clothing and feeding culture quite distinct them from other ethnicities in the region. The crude density of population is calculated to be found 119 persons per km^2. Agro- ecologically, about 54.04 % of Dawuro is Kola (500-1500m),

45.28% is Woyina Dega (1500-2500m) and the rest 0.69% is Dega (>2500m). Its altitude ranges from 550m at the South Western corner where the rivers Omo and Zigna converge to 2820m above the sea level at Tuta, Tocha (Dawuro zone Trade & Industry Department, 2010).

It has 5 Woredas (namely Loma, Mareka, Essera, Gena Bosa and Tocha), one town administration (Tarcha), 5 Municipalities and 171 Peasant Association /Kebele administrations after it has been restructured as a zone in SNNPR (Ibid). Essera and Tocha woredas among others have been relocated with inter-zonal resettlers and intra-zonal resettlers respectively.

3.2.1. Essera Inter-Zonal Resettlement Area

Essera is one of the five woredas in Dawuro Zone which received and hosted 3357 households from other three zones in the SNNPR such as Wolayita, Kambata and Hadiya during 2003-2008 (EWFSCD, 2010). It is bounded in West by Konta special Woreda, in South by Gamu Gofa Zone, in the East by Loma Woreda and in the North and North East by Tocha and Mareka Woredas respectively (Map 3.1).

The total population of Essera Woreda is 65,751 out of which 33,221 are male and 32,530 are female (CSA, 2007). The areas of Woreda consist of mainly three agro-ecological climatic conditions such as "Kola" (500-1500m), "Woyina Dega" (1500-2500m) and "Dega" (>2500m). The resettlers were relocated in five low land kebeles in the woreda ("Kola" agro-climatic conditions) namely Manera, Boyina, Neda, Modi and Yucha which have not been occupied by host communities so far. These resettlement kebeles are surrounded by four host kebeles such as Hageli 01, Hageli 02, Ofa and Sengeti (Essera Woreda Agricultural & Rural Development Office, 2010).

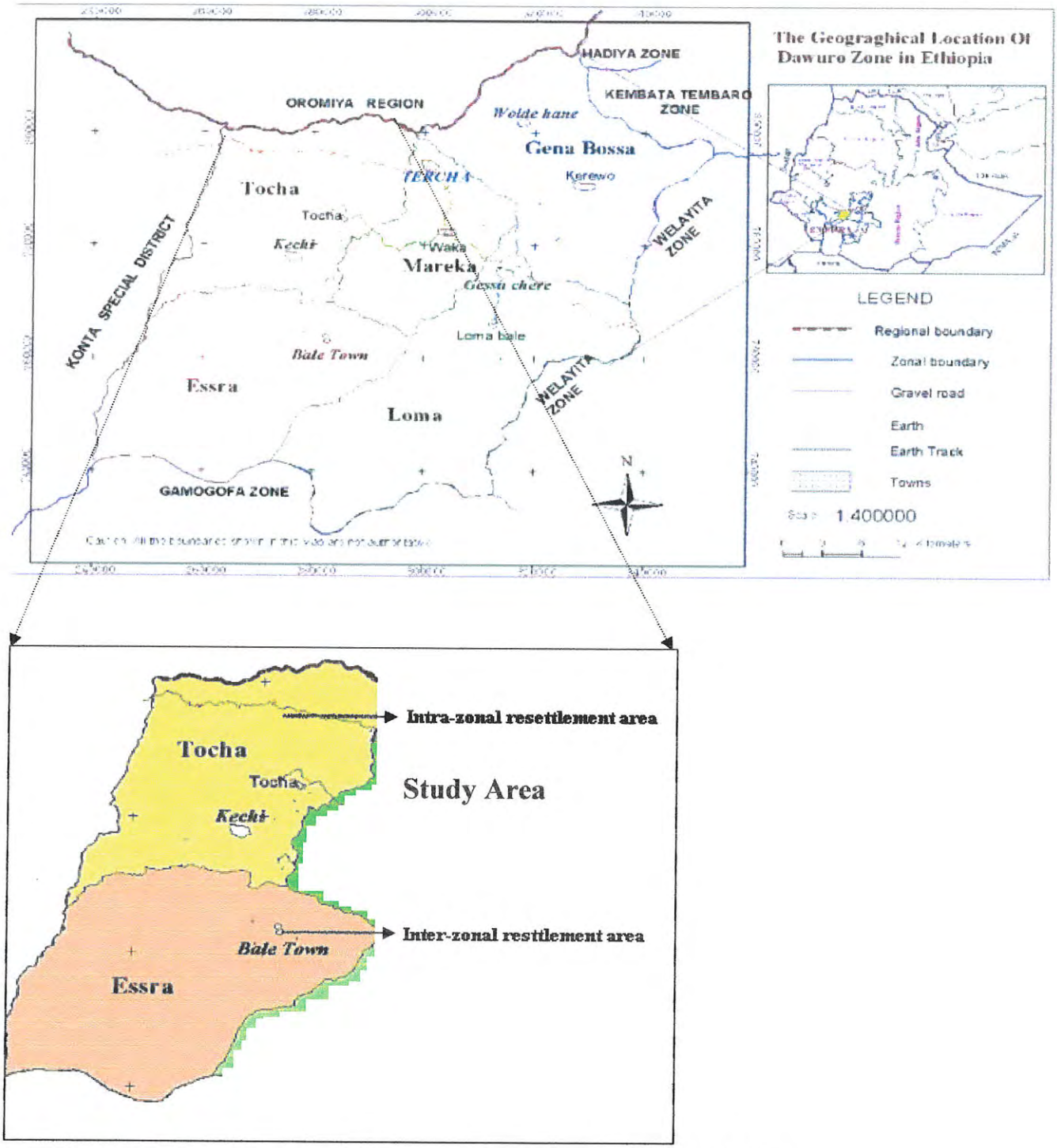
All the areas selected for resettlement were savanna grassland and forest areas which have not been cultivated by local people prior to the relocation of resettlers (Ibid). This might be good opportunity to resettlers to increase their agricultural productivity in the area because of the fertility of land that has been kept by savanna grasses and forest.

3.2.2. Tocha Intra-Zonal Resettlement Area

Tocha Woreda is also one of the other Woredas in Dawuro Zone to which people who exposed to chronic food insecurity were displaced from the highlands of different densely populated areas in the Zone and relocated in lowland areas in this Woreda. Concerning the boundary of Woreda, it is bounded in West by Konta special Woreda, in South by Essera Woreda, in East by Mareka Woreda and in North by Oromia region (Map 3.1).

Total population of the Woreda is 103,419 of which 52,755 are male and 50,644 are female (CSA, 2007). The Woreda has mainly three agro- ecological climatic conditions such as Kola (500-1500m), Woyina Dega (1500-2500m) and Dega (>2500m) (Tocha Woreda Agricultural & Rural Development Office, 20010). The resettlers were relocated in two kebeles in the Woreda which were identified by government officials as open and fertile enough for agricultural productivity. Accordingly, 539 household heads of which 275 and 264 household heads have been relocated in "Muga" and "Angella" kebeles respectively from year 2003-2009 (Tocha Woreda Food Security Coordination Desk, 2010). As it was ensured from field observation, Muga resettlement kebele was entirely the dense forest area where people have been relocated by clearing it while Angella kebele was the savanna grass land.

The two resettlement kebeles are bounded by two host kebeles namely Oda Gofa and kechi. The former has "Kola" agro-climatic condition while the later is characterized by "Woyina Dega" agro-climatic condition.



Source: SNNPR Finance & Economic Development Bureau, 2010

Fig 3.1 Administrative Map of Dawuro Zone

3.3. Administrative History of Dawuro Zone

The Dawro Zone was previously known as Kullo Konta Awuraja under Keffa Province (Kifle Hagger) during Derg regime until 1988. At the end of 1988, the Derg government revised its administrative location on the basis of geographic neighborhood and culture. As a result, Dawuro was included under Semen Omo Adinistration with Wolayita and Gamo Gofa. After the downfall of Derg, EPRDF came to power and changed the administrative status of Semen Omo from administration to Semen (North) Omo Zone in which Dawuro with its three woredas (districts) has been included from 1991 to 1999. Dawuro was also restructured as a Zone in 2000 and now it is one of the 13 Zones of SNNPR (Dawuro Zone Trade & Industry Department, 2010).

3.4. Infrastructure Facilities

Dawuro had commonly been regarded as a backward area because of the lack of different social and physical infrastructure facilities until few years ago. Since 2000 when it was restructured as an independent Zone in SNNPR and the construction of Jimma- Tarcha-Soddo highway completed, the establishment of some infrastructure facilities has been started and the area is on the way of attaining remarkable improvements especially in education, health facilities and safe drinking water (Dawuro Zone Agriculture and Rural Development Department, 2010). But the gap in the area still requires strong commitment from all stakeholders to attain the MDGs. Today, the towns of five Woreda administrations including some small villages have got access to electricity which was non-exist some two years ago. But still, there is no telephone service in different Woreda administrations except the V-sat and few wireless telephones in few kebeles and the capital of Dawuro; Tarcha-which has access to both line and cellular telephone services. Moreover, the lack of standardized road that meets Woredas with the Zone capital, poor access to safe drinking water to rural community, ill-equipped health institutions and educational institutions are some of the problems which constitute large share in the area (Ibid).

3.5. Agricultural Activities and Livestock Production

Above 85% of the total population is living in rural area and engaged in varieties of agricultural activities such as crop production, livestock production, fruit and vegetables cultivation and bee keeping to some extent. However, crop production and livestock production have a lion share to the life of rural people.

Land of Dawuro is among the suitable areas for agriculture. It's warm temperature, moderate and low variability of rainfall, availability of enormous perennial rivers for irrigation, possibility to grow crops both in dry and rainy seasons, better status of soil regarding fertility, depth and texture are among the indicators of suitability for agricultural activities in the area. However, the productivity is very less because of traditional means of production, dependence on natural rain fall and poor market access to encourage farmers, etc (Ibid).

The result of data collected by the Trade and Industry Department of Dawuro Zone shows almost all of the areas in Dawuro are suitable for different agricultural production. The area is famous in production of cereals (maize, teff, beans, peas, barely, wheat, sorghum, etc); oil crops (sesame, niger, flux, sun flower, ground nut); stimulant crops (coffee and chat); Vegetables (cabbage, tomato, green paper, red onion and garlic); fruits (sugarcane, mango, avocado, pine appeal, papaya, banana, orange and lemon); root crops (sweet potato, potato, taro, yam, and enest[4]); fiber plants (cotton) and variety of forage development to feed cattle.

Concerning the livestock production, there are more than a million cattle, 93,000 sheep, and 125,000 goats, 13,000 horses, 12,000 mules and 13,000 donkeys in the Zone (Dawuro Zone Trade & Industry Department, 2010). Besides, the presence of abundant domestic animals, plentiful grazing land particularly in lowlands and the best quality of butter of Dawuro are among main indicators of potential for ranching, fattening and processing, and dairy farming.

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[4] *Enset is false banana that is dominantly used for consumption by people in high land areas of south and south western parts of the country.*

3.6. Natural Endowments and Cultural Heritages

Dawuro has immense natural resources that can attract potential investors and tourists to the area but have not yet been harnessed. For instance, from the total area of the Zone, about 13.2% (58,992 ha) covered by forest out of which about 18,000 ha is taken up by bamboo tree (Dawuro Zone Trade & Industry Department, 2010) which can be used for house construction, fences and different forms of furniture. Weira, Kerero, Zigba, Bisana, Tikur Inchet, Tid, Eucalyptus and Acacia are some of the prevailing trees in the Zone. There are different types of abundant minerals such as gold, iron, calcium carbonate, coal, marble quartz which need immediate reconnaissance in the area. In addition, Dawro is endowed with different natural beauties such as hot springs around the Gojeb and Omo rivers, Chebera Churchura national park (with total area of 1200km^2) with its variety of wild fauna and flora, interesting topography, waterfalls and water resources (Ibid).

Moreover, the historical antiquities like "Kati Halala kela" (the great Wall of King Halala) which was built around the Zone in northern, eastern and southern directions along the Gojeb and Omo rivers with a total length of 1000 kilo meters is a proud to the area. It surrounded the area of the Zone except western boarder of Konta special Woreda where there is scarcity of stone for wall construction. The wall was built by deep hole dug by labor force. This great wall of Dawro or king Halala is the only one in Ethiopia and argued as among the known antiquities in the world which is being highly publicized and recognized as the great antiquity and proud of Ethiopia in general and the Dawuro people in particular. The construction of Gibe III hydro electric power project which is planned to be accomplished by 2012 is another proud to the area which is expected to create three artificial lakes that will encircle the great wall and make navigation by bouts (touring) easier (Ibid). Therefore, all these endowments and cultural heritages might be anticipated to be the most important tourist attractive centre in Dawuro Zone for future.

3.7. The Current Planned Resettlement Program of Ethiopia

The chronic food insecurity over the past many years has driven the Ethiopian government to think of more durable solutions than food aid to household heads. Accordingly, the government has designed the following key interventions to attain household food security since 2003 (PASDEP, 2006):

a) Building household assets through on-farm activities;

b) Supporting voluntary resettlement to more productive areas;

c) A Safety Net Program, which helps to bridge food gaps while building community assets and;

d) Introducing non-farm activities.

In this regard, the Ethiopian government launched in principle voluntary, intra-regional and government sponsored resettlement program in 2003 with objective to enable up to 440,000 household heads (2.2 million people) chronically food insecure to attain food security within three years, through improved access to productive land. The initiation of the resettlement program rests on four major pillars such as: i) voluntary options of the potential settlers which states that resettlers can return to their origin if unhappy about the new area and they have right to use their original homeland for three years; ii) the availability of underutilized land in receiving areas; iii) consultation with the host communities and iv) proper preparation. In addition, the program was planned to be guided with thirteen key principles and approaches like voluntarism, partnership, intra-regional, community management, capacity building, and environmental concern among others (New Coalition for Food Security, 2003).

The resettlement program was planned to four regions: Tigray, Oromia, Amhara, and Southern Nations, Nationalities, and Peoples Region (SNNPR) to be implemented in three phases of approximately 100,000, 150,000 and 190,000 household heads each, although these figures are dependent on the voluntary choices of household heads in "sending" Woredas. Potential resettlers are identified during awareness creation campaigns at both the Woreda and kebele levels by the respective resettlement task force (composed of relevant bureaus and administration representatives). Host Woredas are identified based on an availability of arable land by considering steps to be taken to mitigate negative social and environmental impacts that could result around resettlement sites. Besides, the plan document indicates that 2 hectares of land provision for resettlers, the establishment of basic infrastructure (health services, water supply, primary schools, roads, etc.) in and around the resettlement sites to assure provision of services which can meet at least minimum standards. In addition, seed, oxen, hand tools, utensils and food ration were

planned to be delivered to resettled people for an eight-month period (or until the first successful crop harvest) with the distribution of other necessary inputs (FSCB,2004 and PASDEP, 2006).

The total financial resource needed to undertake the program was estimated 1,867.529br (in million) which intended to cover cost packages such as food ration, farm implements and hand tools, utensils and seeds; community packages that covers the cost of infrastructure development; transportation cost; oxen purchase; capacity and drugs cost; administrative costs and contingency (New Coalition for food security, 2003). Table 3.1 clearly indicates the regional resettlement program and its total cost estimated at the beginning of the program.

Table 3.1. Resettlement and Its Cost in Ethiopia (2003-2006)

Region	Resettlers			Total cost (in Br)
	Household heads	Family	Total	
Tigray	40,000	160,000	200,000	192,389,000
Amhara	200,000	800,000	1,000,000	800,625,000
Oromiya	100,000	400,000	500,000	417,397,500
SNNPR	100,000	400,000	500,000	422,397,500
Contingency				34,720,000
Total	440,000	1,760,000	2,200,000	1,867,529,000

Source: The New Coalition for Food Security, 2003

3.7.1. Resettlement Program in SNNPR

The SNNPR is one of the four regions which were selected for undertaking the intra-regional resettlement program. The region was planned to resettle 100,000 household heads (500,000 people) within three years (2003- 2006). Resellers were moved predominantly from eastern zones and special woredas of the region where population pressure is greatest and food insecurity is most chronic, e.g. Wolayita, Kambata, Tambaro, and Hadiyya Zones as well as Konso and Derashe Special Woredas. These selected resettlers were mainly hosted in the Zones and special Woredas in the Western parts of the region, considered as possessing ample space with productive land such as Sheka, Kefa,

Bench-Maji, and Dawuro Zones as well as Basketo and Konta Special Woredas (SNNPR Food Security Coordination Office, 2005; DPPC, 2002-2003, cited in New Coalition for Food Security, 2003). In addition, the region has undertaken intra- zonal resetlement programs in Woliyta and Dawuro Zones in the region.

3.7.2. Resettlement Program in Dawuro Zone

The resettlement program was undertaken in three woredas (districts) in the zone from which one woreda; Essera hosted inter- zonal resettlers and Loma and Tocha woredas hosted intra-zonal resettlers. Loma intra-zonal resettlement area specifically Moggiti-Qoyisa kebele hosted people from the Omo gorge within the zone who faced food insecurity problem due to shortage of rain fall frequently. As a result, the Zonal administration in collaboration with the regional government has supported resettlers during their movement from their former village to the new site by providing hand tools and constructing 38 km dry weather road from the main high way to the new site (DZFSCO,2010).

Wolde Sellassie (2003) has conducted study one year after the implementation of intra-zonal resettlement program in this specific area and reported that the resettlers were provided with one hectare plot of farm land and no adequate infrastructure facilities like health institution, potable water, school and grain mail etc. were established at that time. The same study also indicates that the existence of similar socio-cultural and smooth relationship between the host communities and resettlers were the best opportunities for the success of the program in the area.

In addition, the intra-zonal (people from the same zone) and inter-zonal (people from other zones of the region) resettlement programs have been carried out in Tocha and Essera Woredas in Dawuro Zone respectively. In this regard, the table 3.2 indicates the number of people relocated at beginning, abandoned and existing now in the area.

Table 3.2. The Number of People Relocated, Abandoned and Existing

Type 0f resettlement	Kebele	No. of people relocated initially		No. of people returned to origin		No. of people currently existing in new area	
		Fr	%	Fr	%	Fr	%
Inter zonal	Boyina	584	100	381	65.2	203	34.8
	Manera	981	100	668	68.1	313	31.9
	Neda	941	100	262	27.8	679	72.2
	Modi	500	100	222	44.4	278	55.6
	Yucha	351	100	69	18.4	282	80.3
	Total	3357	100	1602	47.7	1755	52.3
Intra zonal	Loma	222	100	-	-	222	100
	Muga	275	100	-	-	275	100
	Angella	264	100	-	-	264	100
	Total	761	100	-	-	761	100
Grand total		4118	100	1602	37.5	2516	62.5

Source: DZFSCO, 2010

The above table shows that most of resettlers were left from inter-zonal resettlement area compared with intra-zonal ones from which no returnee has registered. For instance, 381 (65.2%) and 668 (68.1%) resettlers were returned from Boyina and Manera inter-zonal resettlement kebeles of the study area respectively. But none of the resettlers was left his new area from Muga and Angella intra-zonal resettlement kebeles of the study area. More resettlers were left the Manera kebele compared with others because of the lack of tolerance and related problems of resettlers to adapt new area. In general, half of inter-zonal resettlers were returned to the origin immediately after their arrival to the new area. The officials and members of the existing resettlers during interview and focus group discussion reasoned out the selection problems at the sending Woredas in identifying right persons who faced the problem of food insecurity and interested to move. However, the reason why people abandoned could be their separation from their birth place, relatives and kin groups as researchers noticed from other study areas (Mellese, 2005; Gebre, 2005)

because those who relocated within their origin did not share this problem in study area. None of the intra-zonal resettlers were returned to their origin compared with inter-zonal ones though they have not been assisted by the government as what was done to inter-zonal resettlers. This indicates that people who relocated within their origin are more stable in new areas than people displaced from their origin.

The voluntary resettlement program document states that resettlers shall receive some benefit packages that will help them to start living in new areas. Accordingly, the inter-zonal resettlers have received these packages but the intra-zonal resettlers did not. The following table shows the category of respondents who have received the stated packages and those who did not.

Table 3.3. Benefit Packages given to Resettlers from Government

Assistance provided	Inter-zonal resettlement area	Intra-zonal resettlement area
One ox	✓	-
Two oxen	-	-
Agricultural hand tools	✓	-
Utensils	✓	-
Cloth	✓	-
Food ration	✓	-
Agricultural land	✓	✓
Others	✓	✓

Source: DZFSCO, 2010

Table 3.3 indicates that the benefit packages were given to inter-zonal resettlers excluding the intra-zonal ones in study area. Although the intra-zonal resettlers were moved from short distance compared to their counterparts, the reason for their displacement was the same as those of the inter-zonal ones. But they have not been provided with any benefit packages except a plot of fertile agricultural land that can encourage them to start new life hopefully in new area. The program document also stated the importance of relocating people within the same area with kin relations in the same locality. Accordingly, some

intra-zonal resettlers in some areas such as wolayita Zone and Loma in Dawuro Zone in the same region have been provided assistance from zonal and regional governments during their move to new areas (Wolde Sellassie, 2003; Mellese, 2005). But those in Tocha Woreda intra-zonal resettlement areas have not received any of the benefit packages highlighted in program manual either from zonal or the regional government except agricultural farm lands.

To sum up, people from different food in secured areas in SNNPR have been relocated at Essera and Tocha woreds of Dawuro zone. The former hosted inter-zonal resettlers from other zones in the region while later occupied with intra-zonal resettlers from densely populated highlands within the Zone from year 2003-2008. In this regard, inter-zonal resettlers were relocated in five different kebeles in Essera while intra-zonal resettlers relocated at two different kebeles in Tocha woreda. The inter-zonal resettlement program was carried out through the collaboration of federal, regional and local government levels and resettlers were assisted by the government for one full year and they have been provided with food ration, one ox, blanket, utensils and agricultural hand tools. But the intra-zonal resettlement program was left to Zonal government and resettlers were provided with only a plot of agricultural land without any other form of assistance except few household heads who received sickle and axe with assumption that they moved short distance and can use their properties at nearer origin until first harvesting year.

Chapter Four: Results and Discussions

4.1. Introduction

This chapter deals with the results and discussions of the study. The background characteristics of respondents; perception of household heads towards resettlement; the nature of resettlement program; the socio-economic relationship between resettlers and host community; on-farm and off-farm activities being carried out by household heads. In addition, food availability, access and utilization by household heads and the coping strategies being used to mitigate the adverse conditions are discussed. Other interventions to enhance sustainable food security such as infrastructure facilities established and functioning in the area; the environmental management and rehabilitation strategies to keep the sustainable fertility of areas; asset building/ protection strategies are also briefly discussed.

4.2. Background Characteristics of the Respondents

A total of 214 respondents are selected randomly from inter-zonal resettlement, intra-zonal resettlement and host community areas for this study. The summary of the respondents' background information is shown in table 4.1.

4.1. The General Background Characteristics of Respondents

Attributes	Category	Inter-zonal resettlers		Intra-zonal resettlers		Host community		Total	
		Fr	%	Fr	%	Fr	%	Fr	%
Sex	Male	68	100	67	95.7	64	84.2	199	93.0
	Female	0	0	3	4.3	12	15.8	15	7.0
	Total	**68**	**100**	**70**	**100**	**76**	**100**	**214**	**100.0**
Age	15-20	0	0	0	0	2	2.6	2	0.9
	21-25	5	7.4	4	5.7	2	2.6	11	5.1
	26-30	19	27.9	8	11.5	9	11.9	36	16.8
	31-35	12	17.6	22	31.4	9	11.9	43	20.1
	36-40	25	36.8	15	21.4	38	50	78	36.5
	Above 40	7	10.3	21	30	16	21	44	20.6
	Total	**68**	**100**	**70**	**100**	**76**	**100**	**214**	**100**
Ethnicity	Kambata	18	26.5	0	0	0	0	18	8.4
	Hadiya	50	73.5	0	0	0	0	50	23.4
	Dawuro	0	0	70	100	76	100	146	68.2
	Total	**68**	**100**	**70**	**100**	**76**	**100**	**214**	**100**
Religion	Orthodox	7	10.3	35	50	25	32.9	67	31.3
	Protestant	61	89.7	35	50	48	63.2	144	67.3
	Catholic	0	0	0	0	2	2.6	2	0.9
	Others	0	0	0	0	1	1.3	1	0.5
	Total	**68**	**100**	**70**	**100**	**76**	**100**	**214**	**100**
Family size	1-4	10	14.7	11	15.7	35	46.1	56	26.2
	5-8	42	61.8	42	60	34	44.7	118	55.1
	9-12	15	22	17	24.3	6	7.9	38	17.7
	13-16	1	1.5	0	0	1	1.3	2	1.0
	Above 16	0	0	0	0	0	0	0	0
	Total	**68**	**100**	**70**	**100**	**76**	**100**	**214**	**100**
Educational status	Illiterate	23	33.8	35	50	44	57.9	102	47.7
	1-4	9	13.2	17	24.3	16	21.1	42	19.6
	5-8	28	41.2	16	22.8	14	18.4	58	27.1
	9-10	8	11.8	2	2.9	1	1.3	11	5.1
	11-12	0	0	0	0	1	1.3	1	0.5
	Above 12	0	0	0	0	0	0	0	0
	Total	**68**	**100**	**70**	**100**	**76**	**100**	**214**	**100**

Source: Household survey, 2010

As it can be seen from table 4.1, the majority of respondents (93%) are male while 7% are female. Inter- zonal resettlement area has women respondents but the intra-zonal resettlement and host community areas slightly consist of women respondents. This may indicate that indeed female headed households are few in the study area. Concerning the age composition of respondents, the study shows that 63 (82.9%), 58(82.8) and 44 (64.3%) of the total respondents in host community, intra-zonal resettlement and inter-zonal resettlement areas are above 30 years old respectively. This implies that majority of the respondents are above half of the ceiling of productive age group of people in Ethiopia (14-60 years) which is indicated by (Ministry of Economic Development and Cooperation, 2001). However, the belongingness of respondents to early productive age group is better in inter-zonal resettlement area compared with that of intra-zonal and host community areas. This may indicate that the heads of households in inter-zonal area have better opportunity toward sustainable food security compared with those in other areas because of more labor availability to undertake diverse activities.

The study shows a significant ethnic difference among respondents in inter-zonal resettlement area compared with those in intra-zonal resettlement and host community areas. 50 (73.5%) and 18 (26.5%) of total respondents in inter-zonal resettlement area belong to Hadiya and Kambata ethnicity while the entire respondents in both intra-zonal resettlement and host community areas are ethnically Dawuro. Ehetu (2009) argues that ethnic and cultural differences are among the factors to increase the incidence of conflict among resettlers themselves and with host communities in Neda resettlement site of the study area. However, during the focus group discussion that was held with the representatives of resettlers and host community in selected kebeles of this study, they expressed that their ethnical difference has not resulted any conflict between them in study areas. This may indicate that the contribution of ethnic and cultural differences to occurrence of conflict among people is very minimal and might not disturb their stability in attempting to ensure sustainable food security in the area.

Majority of the respondents or 144 (67.3%) are protestant religious followed by 67 (31.3%) of Orthodox religious. The catholic religious constitute only 2 (0.9%) and 1 (0.5%) for others (traditional religion followers in the local area). This study shows that the Protestant

and Orthodox religions have been commonly shared among respondents in inter-zonal resettlement, intra-zonal resettlement and host community areas and the protestant religious constitute a lion share in the area.

Regarding the educational status of respondents, the majority of them or 102 (47.6%) are illiterate that constitute the lion share of respondents. However, 36 (56%) of the total respondents in inter-zonal resettlement area have been educated at primary second cycle (5-8) and the secondary school (9-10) while only 18 (25.7%) and 15 (19.7%) in intra-zonal resettlement and host community areas have attended these educational levels respectively. None of the respondents in all categories have exceeded grade 12 in their educational status. This may indicate the absence of more qualified households' involvement in agricultural activities to easily adopt new systems of farming in order to increase productivity. As a result, the attempt of household heads might be limited toward sustainable food security in the study area.

The family sizes of respondents are generally large in study area. Among respondents, 158 (73.8%) have above five members to which respondents in inter-zonal and intra-zonal resettlement areas contribute relatively more than those in host community (Table 4.1). In addition, as the age of household heads go up, the family size gets more in the study area. This may show that elder household heads have more family members compared with those of youths (Table 4.2). Only 56 (26.2%) sample household heads have less than five members (Table 4.1). This may reveal that most of the respondents in inter-zonal and intra-zonal resettlement areas have large family size compared with the host community ones. According to Masefield (2001), it might be difficult for household heads with five and above family members to cover their family consumption with current two hectare land holdings in study area though it is possible to make yields of agriculture higher through agricultural intensification and use of improved technology. This may reveal that with current farm land and family size, it is challenging to the household heads to sustain food security because of the absence of other off-farm activities from which they can generate additional income to fill the gaps.

Table 4.2. The Interrelationship b/n Family Size and Age of Respondents

Family Size	Age Category (in year)						
	15-20	21-25	26-30	31-35	36-40	Above 40	Total
1-4	1	9	10	12	15	9	56
5-8	1	2	22	26	54	13	118
9-12	0	0	4	5	9	20	38
Above 12	0	0	0	0	0	2	2
Total	2	11	36	43	78	44	214

Source: Household survey, 2010

4.3. The Perception of Respondents towards Resettlement Program

This section focuses on the involvement of resettlers and host communities in information exchange on the program, the willingness of resettlers to move, the criteria employed for selection of resettlers and their feelings towards the new area.

4.3.1. Information Exchange and Participation of Respondents

Information exchange is an important tool in creating awareness of a particular issue to participants. The current voluntary government sponsored intra-regional resettlement program document highlights the importance of information exchange with people in sending woreda and consultation with host community to enable participants to make their own choices regarding the program. Table 4.2 shows the extent to which information was shared with participants in the resettlement program in the study area.

Table 4.3. Respondents' Perception on Information Exchange

The information exchange about the resettlement program prior to its implementation.		Types of Households							
		Inter-zonal Resettlers		Intra-zonal Resettlers		Host Community		Total	
		Fr.	%	Fr.	%	Fr.	%	Fr	%
Response	Yes	67	98.5	69	98.6	69	90.8	205	95.8
	No	1	1.5	1	1.4	7	9.2	9	4.2
	Total	**68**	**100**	**70**	**100**	**76**	**100**	**214**	**100**

Source: Household survey, 2010

Table 4.3 reveals that almost all respondents from inter-zonal and intra-zonal resettlement areas have been involved in information sharing about the program. But 7(9.2%) of the total respondents in host community responded that they have not been informed about the program being carried out in the area. This may indicate that information sharing on resettlement program with participants is significant though some respondents have missed it. This opposes the study undertaken by Gebre (2005) which reported as the information provision to resettlers and host community on resettlement program is not complete, nominal and minimal in some other areas.

The representatives of inter-zonal and intra-zonal resettlers reported in focus group discussion that the current resettlement program is generally based on consensus of resettlers. On whether they moved to the new area voluntarily, 67 (98.5%) and 69 (98.6%) of respondents in inter-zonal and intra-zonal resettlement areas respectively said that they moved to new area voluntarily while 2 (1.4%) of total respondents reported that they have moved involuntarily (Table 4.3). This shows that the movement of most inter-zonal and intra-zonal resettlers to the new area is mainly voluntarily based.

Table 4.4. Respondents' response on Nature of Resettlement Program, their interest to stay and Convenience of New area

Items		Inter-zonal resettlers		Intra-zonal resettlers		Total	
		Fr	%	Fr	%	Fr	%
Voluntarily movement to the new area.	Yes	67	98.5	69	98.6	136	98.6
	No	1	1.5	1	1.4	2	1.4
	Total	**68**	**100**	**70**	**100**	**138**	**100**
Interest of returning back to the origin.	Yes	5	7.4	1	1.4	6	4.3
	No	63	92.6	69	98.6	132	95.7
	Total	**68**	**100**	**70**	**100**	**138**	**100**
Convenience of new area for living compared to origin.	High	64	94.1	51	72.9	115	83.3
	Medium	0	0	1	1.4	1	0.7
	Lower	4	5.9	18	25.7	22	16
	Total	**68**	**100**	**70**	**100**	**138**	**100**

Source: Household survey, 2010

Table 4.4 shows that majority or 132 (95.7%) of the inter-zonal and intra-zonal respondents do not want to return to their origin. Only 6 (4.3%) want to return because of their cattle death by trypanosomiasis[5] and inability to feed their families through crop production in the area. This contradicts a statement by the Dawuro Zone Food Security Coordinator, who expressed that all household heads in resettlement areas are food secure and have started to accumulate wealth in the area because of improvement in their farming productivity.

Concerning the convenience of new area compared to the area of origin, 115(83.3%) of respondents in inter-zonal and intra-zonal resettlement areas reported that new area is convenient for living. Only 4 (5.9%) and 18 (25.7%) in inter-zonal and intra-zonal resettlement areas respectively indicated that the new area where they have been relocated is not convenient to them. The reason for high figure of those not satisfied with the new area is due to the absence of adequate social services like health facilities, safe potable water, market etc. It is clear from the following views of representatives of intra-zonal resettlers with whom the focus group discussion was held.

> *We are not entirely beneficiaries of some social facilities like veterinary services, safe potable water, market, etc. As a result, we have been influenced to walk long distances to get such services from the capital of woreda. Especially, the death of our livestock increases from time to time because of the prevalence of trypanosomiasis in the area. Besides, insects frequently affect our crop production due to inaccessibility to insecticides.*

4.3.2. Socio-Economic Relationship between Resettlers and Host Community

Socio-economic relationships are very important to enhance assimilation between resettlers and host community. They might also help resettlers to adapt the new environment by reducing frustration. Enhancing socio-economic relationship between resettlers and host community might also reverse the social disarticulation associated with displacement of people because this impoverishment risk can be handled through community reconstruction and host community inclusionary strategies (Cernea, 1999).

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[5] *Trypanosomiasis is a livestock disease caused by Tsetse fly in low land areas*

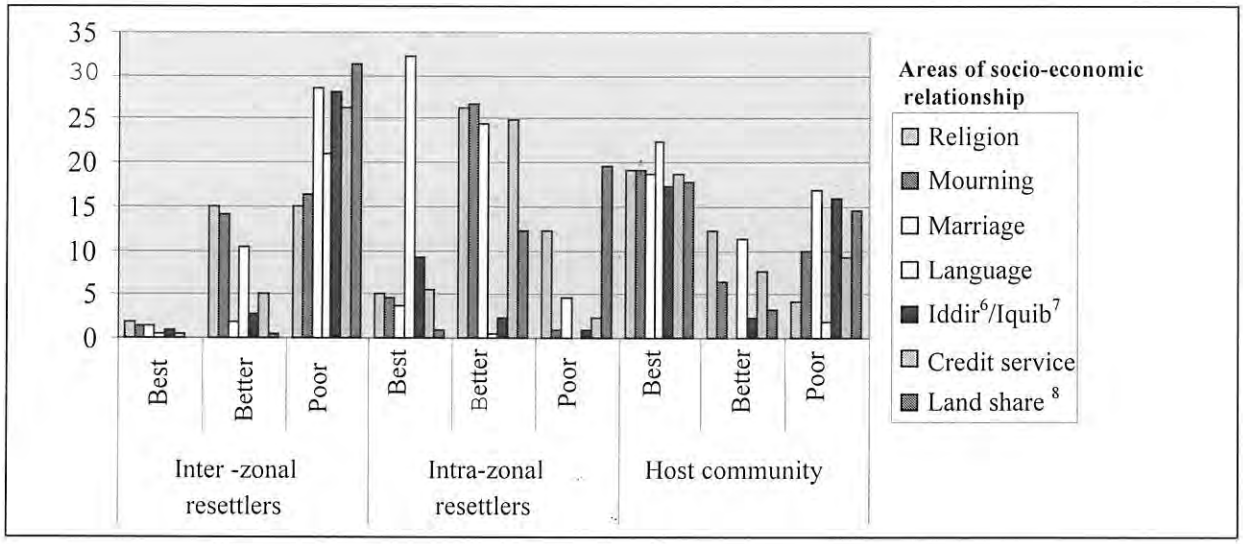


Fig.4.1. Socio-Economic Relationship between Resettlers and Host community

Figure 4.1 shows that majority of respondents in inter-zonal and intra-zonal resettlement areas have good relationships in religion and mourning than other areas of socio economic relationships. 170 (79.5%) of the total respondents indicated that their relationships in religion and mourning are good compared to other socio-economic relationships. However, respondents in intra-zonal resettlement areas reported that they have good relationship with host community in credit services and land sharing compared to those in inter-zonal resettlement areas. The study in general shows that the relationships between intra-zonal resettlers and host community in religion, mourning, marriage, language, credit services and land sharing is good because of their cultural and language homogeneity compared to those in inter-zonal resettlement areas.

[6]*Iddir is informal association in local area through which people coordinate to each other during mourning, burial, shelter construction, etc.*

[7]*Iquib is informal association in which local people contribute money weekly that can be used by all contributors turn by turn.*

[8]*Land share is the relationship between households to commonly harvest on one's farm land.*

Although the relationship in marriage, language and credit service and iquib/ iddir among inter-zonal resettlers and host community is low, the respondents have an expectation to the improvement of socio-economic relationships near in the future. This is clearly shown during focus group discussion that was held with representatives of the inter-zonal resettlers as follows:

> *All of us now able to speak the language of local people and our sons also became fluent in local people's language and highly assimilated with them. In addition, now we started marriage regardless of the ethnic differences and able to be organized in iddir/iquib with them in which we can cooperate during different social affairs and save money locally.*

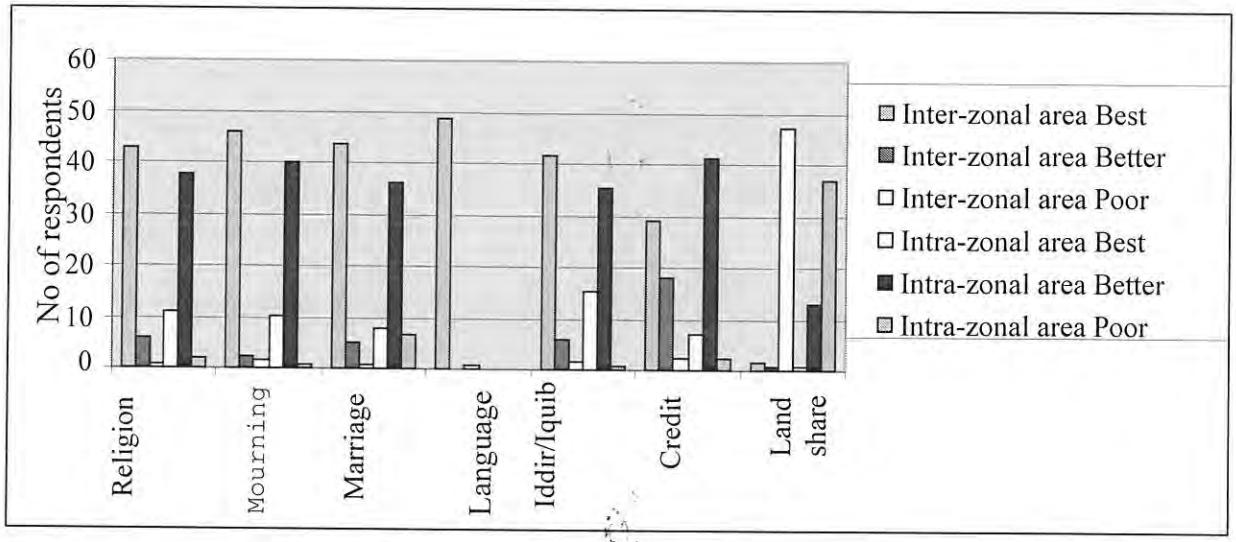


Fig 4.2. Socio-Economic Relationship among Resettlers themselves

Figure 4.2 indicates that majority of the respondents in inter-zonal and intra- zonal resettlement areas have good relationships among themselves in religion, marriage, mourning, language, iddir/iquib and credit services. 3 (4.4%) and 19 (27.1%) of total respondents in inter-zonal resettlement and intra-zonal resettlement areas had land share relationship among themselves respectively. This may indicate that the respondents in intra-zonal resettlement areas have relatively better experience than those in inter-zonal resettlement areas in sharing land to commonly harvest on one's farm land.

In general, the respondents in inter-zonal and intra-zonal resettlement areas have strong cohesiveness among themselves in different socio-economic relationship areas than with host community.

Regarding the conflict occurrence, Table 4.5 indicates that majority or 205 (95.8%) of the total respondents have not faced conflict after the resettlement program has been implemented. Only 9 (4.2%) have faced conflict because of host communities' grazing land use. In general, the study shows that conflict occurrence is very minimal among respondents in the area.

Table 4.5. Response of Sample Household Heads to Conflict Occurrence

Conflict faced by households after resettlement program in the area.	Inter-zonal resettlers		Intra-zonal resettlers		Host community		Total	
	Fr.	%	Fr.	%	Fr.	%	Fr.	%
Yes	1	0.5	3	1.4	5	2.3	9	4.2
No	67	31.3	67	31.3	71	33.2	205	95.8

Source: Household survey, 2010

In addition, members from intra-zonal resettlement areas who participated in focus group discussion revealed that they have not faced any conflict in the area because of resource use. Also participants from inter-zonal resettlement and host community areas expressed about the occurrence of conflict as follows:

> *We have not faced personal conflict one to another except reporting to local government officials to demarcate the boarder of resettlement kebeles from the host ones which led us sometimes to quarrel over using resources in border areas.*

This finding contradicts the study by Misganaw (2005) and Eshetu (2009) in which resettlers and host community were found to face regular social conflict over local resource use and due to ethnic and cultural differences.

4.4. Food Security Situation of Inter-Zonal Resettlers, Intra-zonal Resettlers and Host Community

4.4.1. Household Heads' Farm Land Size, Fertility and Frequency of Production

The output of agriculture that can cover the consumption of family may be determined by farmland size and fertility of soil among others. The size of farm land holding affects the level of output that can sufficiently feed the entire family members of households (Masefield, 2001).

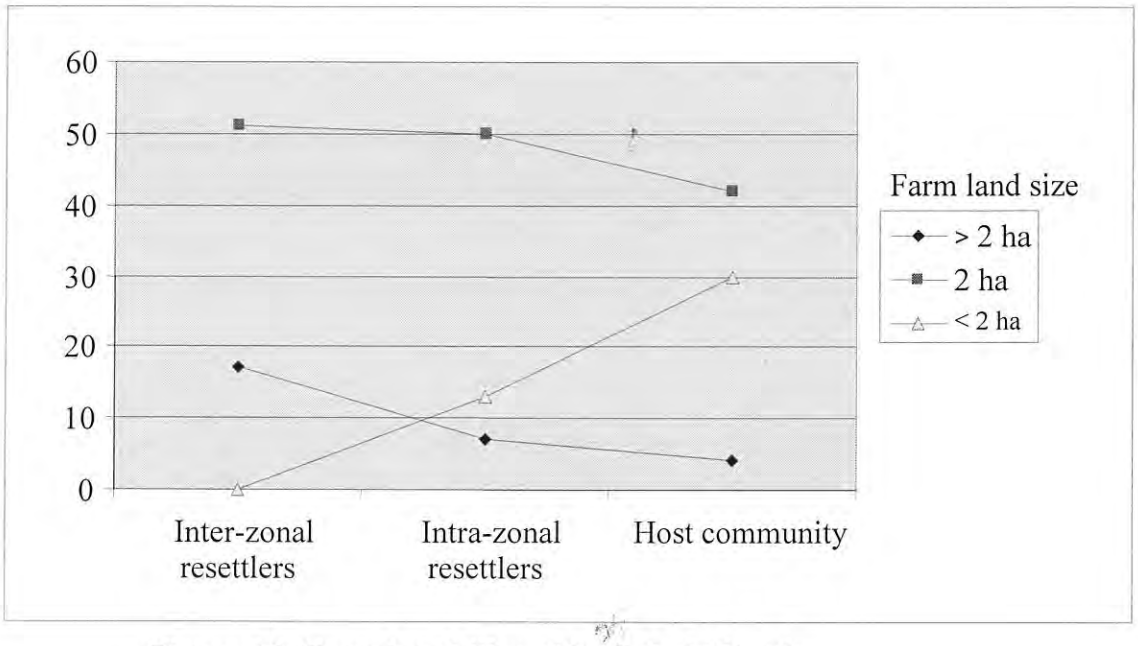


Figure 4.3. Farm Land Size of Household Heads

Figure 4.3 shows that majority of respondents of 51 (75%), 50 (71.4%) and 42 (55.3%) in inter-zonal resettlement, intra-zonal resettlement and host community areas respectively have had 2 hectares[9] of farm land which is stated in program implementation manual. Some of the respondents or 17 (25%) in inter-zonal resettlement area have been given above 2 hectares of farm land while only 7 (10%) in intra-zonal resettlement and 4 (5.3%) in host community areas have had above two hectares. On the other hand, 13 (18.6%) and 30 (39.5%) of the respondents in intra-zonal resettlement and host community areas have had below two hectares of farm land respectively.

[9] *Hectare is a unit of area equals 10,000m²*

This may show that those in intra-zonal resettlement and host community areas could face challenges to sustain their family consumption from own-farm production compared with others. However, the study reveals that the lion share of respondents in study area have had two hectares of farm land. This finding contradicts to the study by Diriba (2005) in which the farm land distribution to resettlers was found below a half hectare in Bale zone of Shanka resettlement scheme.

The current land distribution to household heads has not considered their family size which has direct relation with amount of agricultural output consumption. According to Masefield (2001), household heads with above five family members and that tends to increase from time to time may suffer to sustain food security with two hectares of farm land. This is due to traditional means of production used by household heads; rain fed farming system in the area; absence of other alternative income sources; and absence new farming technologies to household heads in the area.

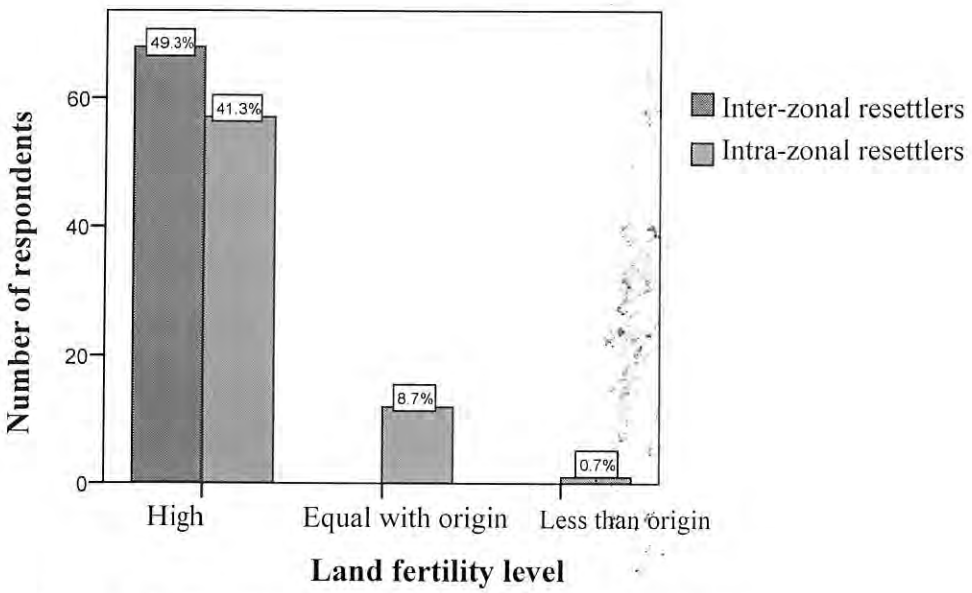


Figure 4.4. Fertility of Household Heads' Farmland

Figure 4.4 indicates that majority of the respondents farm land is fertile as compared to the area of origin. Only 12 (8.7%) and 1 (0.7%) of the total respondents in intra-zonal resettlement area revealed that the fertility of their farm land is as same as area of origin

and below respectively. This may imply that people have been mainly relocated in area where fertile farm land is available to crop production because of underutilization of the land and its coverage with forest and savanna grasses prior to the relocation of people.

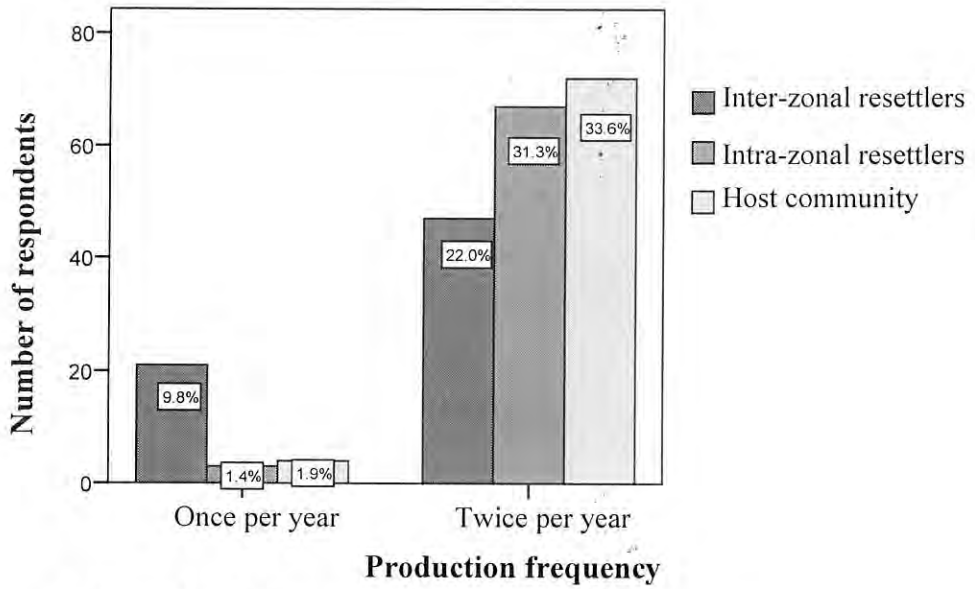


Figure 4.5. Frequency of crop production

Figure 4.5 shows that majority respondents or 186 (86.9%) are able to produce crops twice per year on their farm land in area. However, 28 (13.1%) of the total respondents are producing once per year. Those who produce once per year constitute higher figure in inter-zonal resettlement area compared with intra-zonal resettlement and host community areas. Some of the reasons reported for producing once per year include dependence of their agricultural activities entirely on using "traditional agricultural hand tools" as means of production. This may indicate that there are some household heads that do not have even oxen to plough their farm land. As a result, they may be easily vulnerable to shocks and face food deficit in the absence of other alternative strategies like off-farm activities, modern system of production such as tractor, improved plough, etc.

4.4.2. Food Availability to Household Heads

Food availability addresses the "supply side" of food security and is determined by the level of food production and livestock levels (FAO, 2008). According to FSCB (2004), it

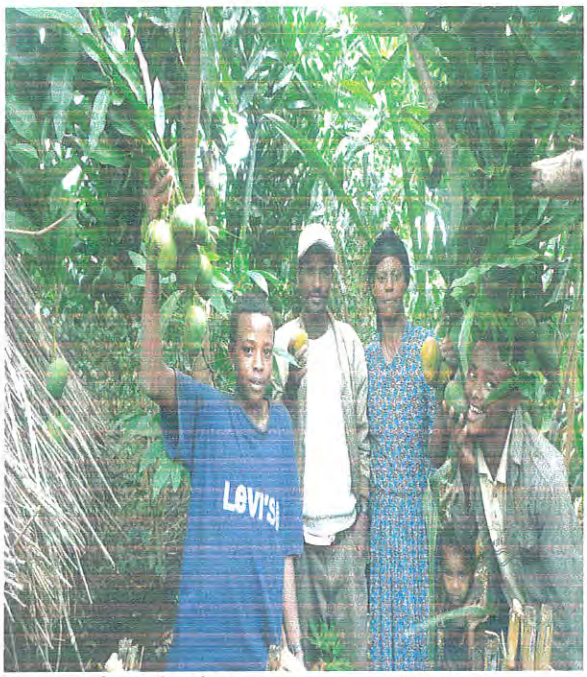
can be improved through increased on-farm production and productivity (food and cash crops and livestock).

4.4.2.1. Food Crops, Cash Crops, Fruits and Vegetables Production

Survey results indicate that all study areas produce relatively similar food crops and plant (maize, teff, sorghum, enset); cash crop (coffee); fruits (banana, mango, papaya) and vegetables (green paper, potato and onion). The average of farm land cultivated for the production of maize, sorghum, coffee and banana by intra-zonal resettlers during last harvesting seasons is higher than that of inter-zonal resettlers. However, the average of farm land cultivated with teff in inter-zonal resettlement area is extremely higher than that of intra-zonal resettlement areas. The maximum farm land cultivated in inter-zonal resettlement area for papaya relatively exceeds that of intra-zonal resettlement area, but maximum area cultivated with mango is higher within it (Annex 6.a). In general, the average size of farm land cultivated with most of crops at intra-zonal resettlement area exceeds that of inter-zonal resettlement area except teff (Annex 6.a). This may indicate that respondents in intra-zonal resettlement area have cultivated more farm land than others during last harvesting season. As a result, they are in position to produce more than others in situation where other things are constant since crop production is related with size of farm land cultivated (Masefield, 2001).

Respondents cultivated the average farm land of 0.11ha, 0.27ha and 0.27 ha with "enset" in inter-zonal resettlement, intra-zonal resettlement and host community areas respectively. In addition, those in inter-zonal resettlement areas cultivated 0.01ha, 0.17ha and 0.04ha farm land with green paper, potato and onion which are very slight to those in intra-zonal and host community (Annex 6.b). In general, enset plantation by respondents in host community is higher than those in intra-zonal and inter-zonal resettlement areas. Respondents in inter-zonal resettlement areas have cultivated more farm land compared with others. This reveals that the focus of inter-zonal resettlers is dominantly relied on production of marketable agricultural items that can generate additional income when compared with intra-zonal resettlers and host community who focused on production of consumption items.

Respondents in inter-zonal resettlement area and host community have got more average product from maize compared to other crop types while those in intra-zonal resettlement area have got more from sorghum than others during last harvesting season. In addition, those in inter-zonal resettlement area have produced the average amount of 1200kg (0.12qu), 6500kg (6.5qu) and 8400 kg (8.4qu) of coffee, banana and papaya in last harvesting season respectively (Annex 7.a). Those in host community have also produced high product of maize, coffee, banana and mongo compared with others. Furthermore, mango and papaya plantation is high by respondents in inter-zonal resettlement areas while those in intra-zonal resettlement areas are more experienced with banana plantation because of the difference in suitability of soil to fruit plantation. In general, the study shows that the availability of food items, cash crops and fruits vary from area to area, but host communities are relatively in better position than others in availability of more diversified food items.



Mango plantation by inter-zonal resettler

Banana plantation by intra-zonal resettlers

Respondents in inter-zonal resettlement, intra-zonal resettlement and host community areas have planted enset in their garden and got the average amount of 0.5 qu (50 Kg), 2.7qu (270Kg) and 6.62qu (662Kg) of its product respectively (See Annex 7.b). This plant

has high potential to resist drought and it has highly contributed to the host community to be food secured. It was also ensured during field observation that enset plantation is very high by those in host community areas compared with others.

Enset plantation by inter-zonal resettlers

Enset plantation by host community

Enset plantation by intra-zonal resettlers

Concerning the production of vegetables, the average amount of potato and onion (red and garlic) is extremely high to respondents in inter-zonal resettlement area compared with those in host community and intra-zonal resettlement areas (Annex 7.b). This may reveal that the availability of potato and onions which are marketable and generate income to households is extremely higher to those in inter-zonal resettlement area.

4.4.2.2. Crop Production before and after Resettlement Program

Figure 4.6 depicts that 69 (98.6%), 64(84.2%) and 42 (61.8%) of the total respondents in host community, intra-zonal and inter-zonal resettlement areas were producing respectively below 10 quintals[10] before resettlement program. Only 1 (1.4%), 12 (15.8%) and 26 (38.2%) of those in host community, intra-zonal and inter-zonal resettlement areas were able to produce above 10 quintals respectively. This may show that only few respondents were able to produce above 10 quintals prior to the implementation of resettlement program in the area. The factors contributed to the low agricultural outputs in origin of resettlers are shortage and degradation of farm land, poor access to improved seeds and fertilizer, drought, etc. The reasons for the low production of host community are lack of fallow farming system, negative attitude to use fertilizer and improved seeds, etc.

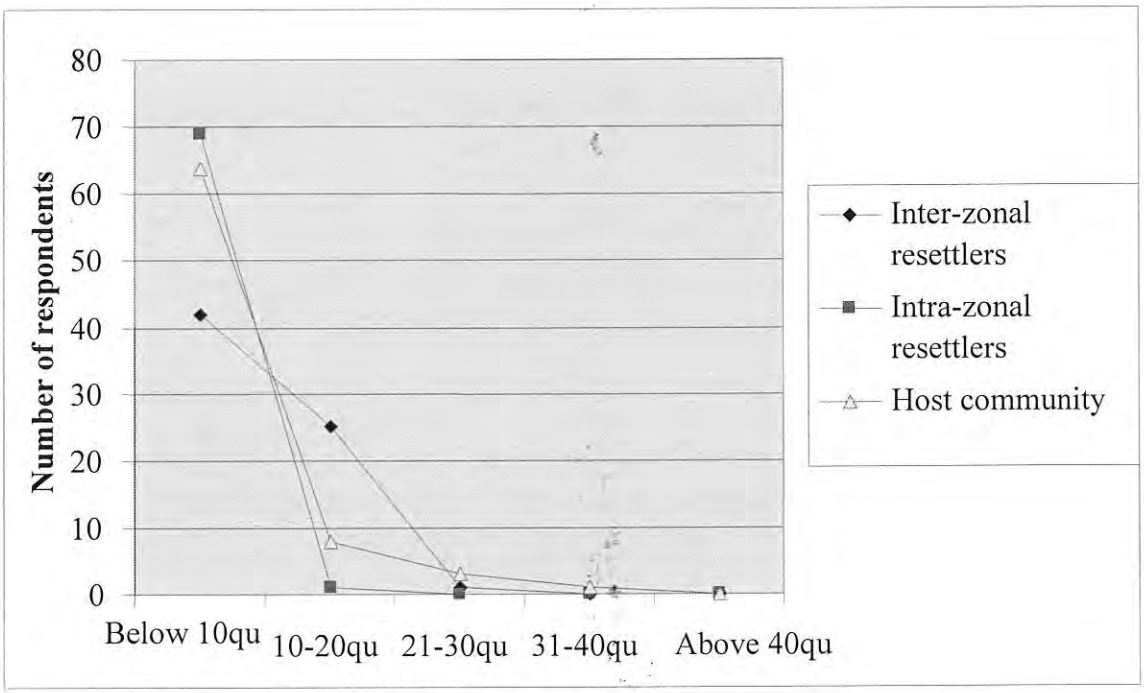


Figure 4.6. The Amount of Annual Crop Production before Resettlement Program

[10] *Quintal is a unit equals to 100Kg*

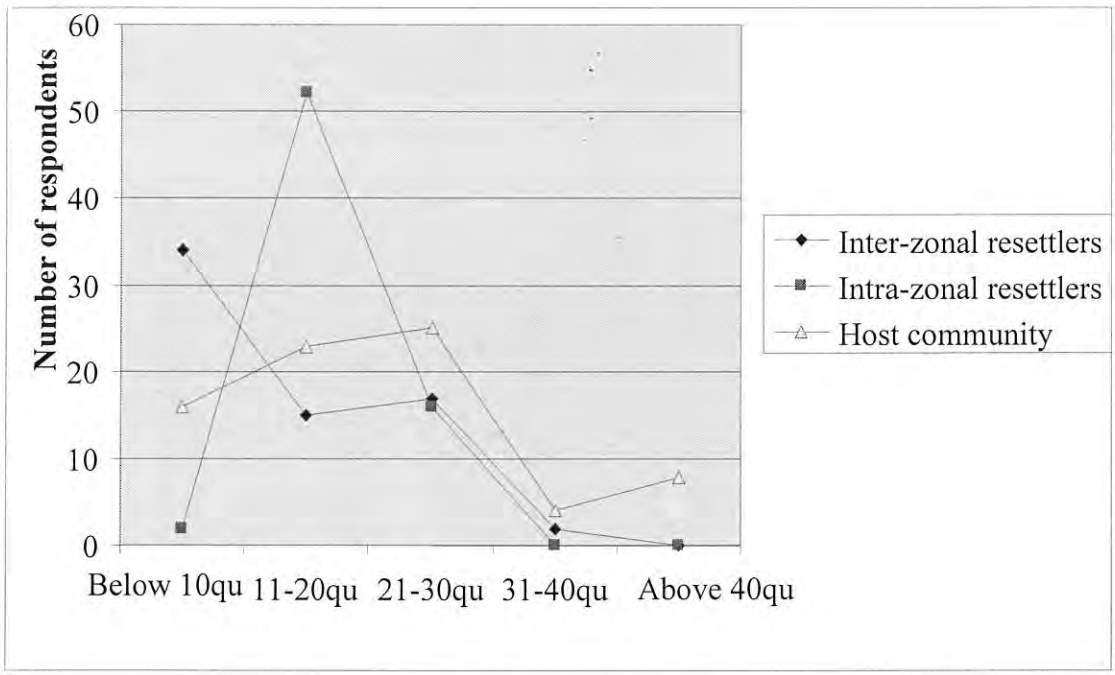


Figure 4.7. The Amount of Crop Production after Resettlement Program

As it is possible to see from Figure 4.7, after the implementation of resettlement program, majority or 68 (97.1%), 60 (78.9%) and 34 (50%) of the respondents in intra-zonal resettlement, host community and inter-zonal resettlement areas were able to produce respectively above 10 quintals annually. Those in intra-zonal resettlement areas have showed higher increment in producing 10-20 quintals after resettlement compared with others in inter zonal resettlement and host community areas. In general, the study shows that the availability of food crops, cash crops, fruits and vegetables relatively improved to households after the resettlement program has been implemented. It was also found that the increment is good to those in host community and intra-zonal resettlement areas compared with others in inter-zonal resettlement area.

The general major factors contributed to the improvement of agricultural production are access to fertile farm land; introduction of improved seeds and fertilizer distribution; and improvement in price to agricultural outputs during last harvesting season in the area.

4.4.2.3. Livestock Production and Bee keeping

Livestock production is another factor that determines the availability of food to household heads. Majority of respondents have below three livestock in "TLU" (cow, ox, sheep, goat and poultry) and beehives before resettlement program in area (Annex 8.a). In other words, only few respondents have had four and above livestock and beehives. This may indicate that the livestock production was very low to majority of the sample household heads before resettlement program to contribute to the availability of food.

After the resettlement program, the "TLU" of livestock and beehives has shown increment to all respondents. The increment is significant to those in host community and intra-zonal resettlement areas compared with others in inter-zonal resettlement area (Annex 8.b). This indicates that the "TLU" of livestock varies from area to area in general and to each respondent in particular.

In general, the study found that crop and livestock production has been improved by household heads in the area after the resettlement program. This finding also concurs with the study by Pankhurst (2005) which indicated that hard worker household heads in resettlement area have improved their livelihood through crop and livestock production in other study areas.

4.4.3. Food Access to Household Heads

According to FAO (2008), ability to access food will help all members of society to obtain sufficient food for healthy living. Food access to household heads can be improved through household head's store of wealth from agricultural output sale, livestock sale, generating income from other off-farm activities and saving which are the important determinants of food access when regular livelihood strategies are obstructed or curtailed by disastrous agro-climatic conditions, loss of employment, prolonged illness, etc.

4.4.3.1. The Involvement of Respondents on Off-farm Activities

The involvement of household heads on off-farm activities such as small scale local trades, handicrafts, food-for works and labor works, etc can enable households to generate additional income that might assist them during adverse circumstances.

All of the respondents are not involving in off-farm activities such as cloth weaving, tannery, construction, food for work, and wood works. Only 1(0.5%), 4 (1.9%), and 17 (7.9%) and 28 (13.1%) of the total respondents involve in blacksmithing, pottery, labor work and petty trade (condiments retailing and bee honey sale) respectively in area (Annex 9). Relatively more respondents from host community involve in some off-farm activities compared with those in inter-zonal and intra-zonal resettlement areas. The involvement of household heads in cloth weaving, tannery, blacksmithing and pottery is highly influenced by the culture of society in the area. This is clear from the following points of focus group participants:

> *Those who involve in cloth weaving, pottery, tannery, blacksmithing and labor work are considered by our community as low class people. Families from those who involve in such activities are also not allowed to integrate in marriage with families of others who did not carry out such activities. In addition, the value given to those people by others is very low which discourage them to involve in these activities in our area.*

This indicates that the awareness among people to consider some off-farm activities as sources of income is very low in the area. In general, the study reveals that the involvement of households in some off-farm activities is very minimal and nonexistent in some others. As a result, the households might be vulnerable to cash and food deficits when agricultural production falls short in area (Fleuret, 1989; Shipton, 1990, cited in Yared, 2001).

4.4.3.2. Annual Income Status of Household Heads before and after Resettlement Program

The diversified source of income for households plays the most important role in improving their livelihood by enhancing their food access. But the source of income to households in study area is very limited to only some on-farm activities (crop and livestock

sale) and off-farm activities (petty trade, blacksmithing and labor work). Though it is difficult to get accurate income status of household heads due to their subsistence farming, the annual amount of their crop production, number of their livestock and different sources from which they generated some additional income were addressed to manage under/ over reporting of their income status. In this regard, figure 4.8 shows the annual income status of households before resettlement program.

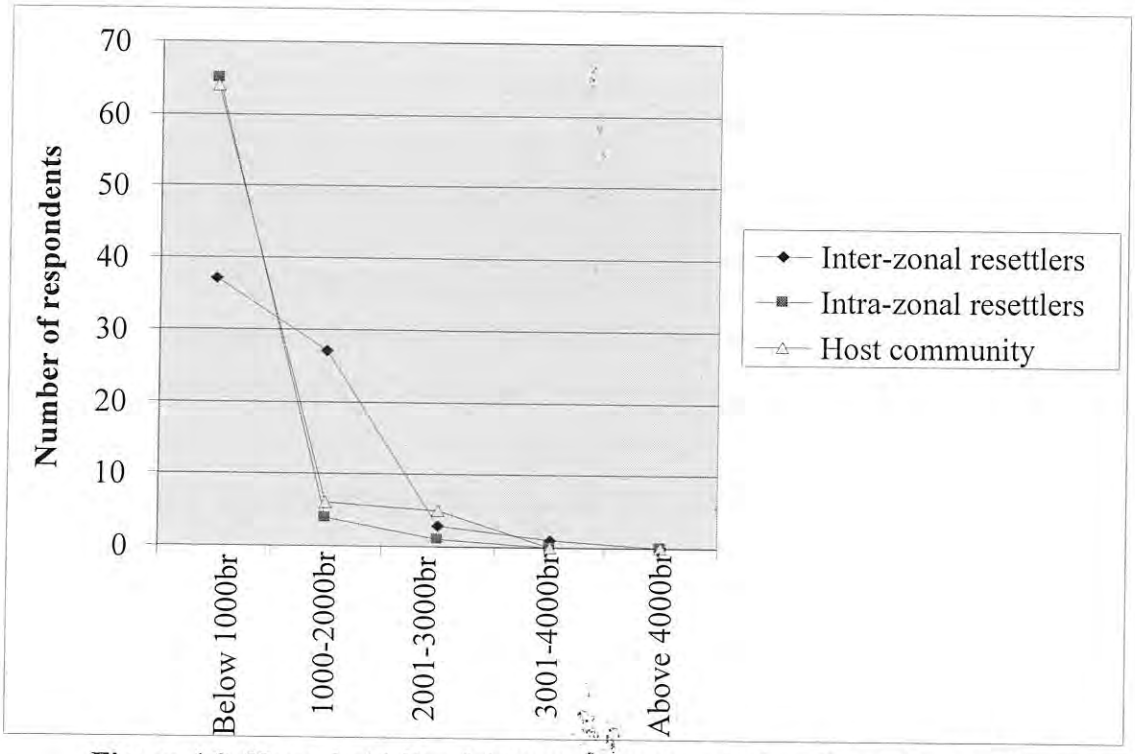


Figure 4.8. Household Heads' Annual Income before Resettlement Program

The annual income level to majority respondents is below 1000br prior to the implementation of resettlement program in the area. In other words, only 47 (22%) of the total respondents are able to generate above 1000br annually before the implementation of resettlement program. This clearly shows that the annual income status of respondents was very low before resettlement program in the area. The main factor that contributed to the low income status of host community before resettlement program is stated as the attitude of households toward crop and livestock productions because of selling their crop and livestock in cheap price due to lack of market access. But after the resettlement program,

they started to sell their crop and livestock at fair price through the market opportunities created by new comers to the area.

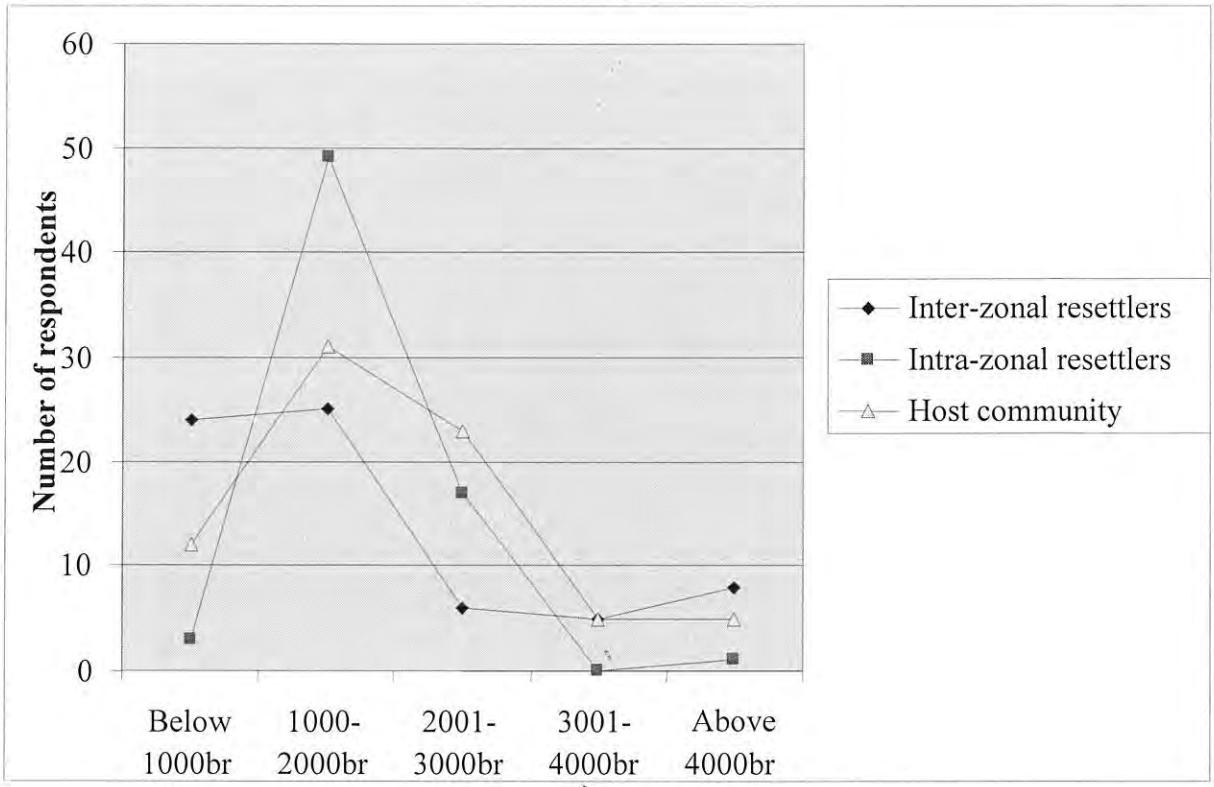


Figure 4.9. Household Heads' Annual Income After Resettlement Program

As it can be seen from figure 4.9, majority of the respondents or 175 (81.8%) were able to ward above 1000br level of annual income after the resettlement program. Those in intra-zonal resettlement and host community areas were dramatically escaped from the annual income level of below 1000br compared with those in inter-zonal resettlement areas after the implementation of resettlement program. Only 39 (18.2%) of the respondents indicated that their annual income is below 1000br. The reasons for the low income status of respondents in inter-zonal and intra-zonal resettlement areas are mainly reported as the lateness in their relocation and the demolition of their crop production by wild animals and insects.

In general, the study reveals that the annual income level to most respondents in inter-zonal resettlement, intra-zonal resettlement and host community areas has raised compared with prior to resettlement program implementation. As a result, they might have better access to

food since the improvement in access to food associated with improvement in income level of households (FAO, 2008). However, the sustainable increment in households' income level is suspicious because of its reliance mainly on farming activities which are highly vulnerable to different forms of shocks.

4.4.4. Food Utilization by Household Heads

Food utilization refers to sufficient energy and nutrient intake by individuals through good care and feeding practices, food preparation, and diversity of the diet and intra-household distribution of food. Thus, it would be improved through intake of diversified diet to body, feeding practices, good care for health and nutrition interventions (FAO, 2008).

Although the food utilization status of people to be evaluated on the basis of an average calorie intake per day, the sample household heads do not have adequate knowledge about their calorie intake per day. Thus, the study attempted to assess their food utilization practices by using the average amount of food items consumed during last harvesting season; the type of meal they are feeding; and the frequency of their diet intake per day.

4.4.4.1. Common Meals to Household Heads in Study Area

Majority of the respondents were able to consume some food crops (maize, teff, and sorghum), fruits (mangoes, banana and papaya), vegetables (green paper, onion, potato) and enset from their own production during last harvesting season. However, the average amount of food items consumed in Kilograms varies from one household head to another in respect to the area during last harvesting season (Annex 11.a & b). This may indicate the variation of food utilization experiences of household heads in the area.

All respondents commonly consume bread (prepared from maize, enset product, and teff), porridge (prepared from maize, sorghum, enset product), injera, milk and milk products, fruits, vegetables and cereals. However, they consume bread, porridge and cereals more frequently than others such as milk and milk products, fruits and vegetables.

Injera, egg and meat are the diets that are being consumed by most household heads rarely. Household heads have access to these food items during the ceremony like Easter, New Year, and Christmas celebrations. Even during ceremony, only 51(75%), 62(88.6%) and

65(85.5%) of the respondents in inter-zonal resettlement, intra-zonal resettlement and host community areas have consumed meat respectively during last season (Annex 12). Only 40 (58.8%), 37 (52.9%) and 30 (39.5%) in inter-zonal resettlement, intra-zonal resettlement and host community areas respectively remarked as they consume egg (Annex 12).

All household heads in all areas have been relatively benefited from the supply of children and maternal nutrition even though the health institutions are ill-equipped. However, all respondents in intra-zonal resettlement areas have been supplied with the children and maternal nutrition compared with those in inter-zonal resettlement in which only half respondents have been supplied with it (Annex 12). This may indicate that the nutrition supply is better to those in intra-zonal resettlement area compared with others. In general, the study argues that the daily diet intake of household heads is limited to few common food stuffs such as bread, porridge and cereals in all study areas.

Table 4.7. The Frequency of Meal intake by Household Heads

Frequency of meal intake	Inter-zonal resettlers		Intra-zonal resettlers		Host community		Total	
	Fr	%	Fr	%	Fr	%	Fr	%
Only breakfast	0	0	0	0	0	0	o	0
Only lunch	0	0	0	0	0	0	0	0
Only dinner	0	0	0	0	0	0	0	0
Breakfast & dinner	13	19.1	8	11.4	11	14.5	32	15
Lunch & dinner	25	36.8	17	24.3	21	27.6	63	29.4
Breakfast, lunch and dinner	30	44.1	45	64.3	44	57.9	119	55.6
Total	**68**	**100**	**68**	**100**	**76**	**100**	**214**	**100**

Source: Household survey, 2010

Table 4.7 depicts that majority of the respondents or 119 (55.6%) in inter-zonal resettlement, intra-zonal resettlement and host community areas took their diet during breakfast, lunch and dinner while 95 (44.4%) of those have an experience of taking their diet only twice per day (either breakfast and dinner or lunch and dinner). This may indicate that there are some people who do not take their diet appropriately on time though the

appropriate diet intake time is considered traditionally as breakfast, lunch and dinner in the area. The reason to inappropriate intake of diet on time basis might be the lack of knowledge on effect of diet intake and shortage of food stuffs to be consumed by all families. In general, it might be possible to argue that the food utilization to some households in study has not been improved.

4.4.4.2. Food Security Status of Sample Household Heads during Last Harvesting Season

The demolition of farm production of the heads of households by wild animals, insects and excessive rainfall or shortage of rain fall might expose them to food deficit in the area. In this regard, this enquiry was undertaken as to whether farm production was enough or not for family consumption in last harvesting year. Accordingly, the heads of household respondents were asked to evaluate how their families sustain their life from own-farm production. The result of this situation is indicated in figure 4.10.

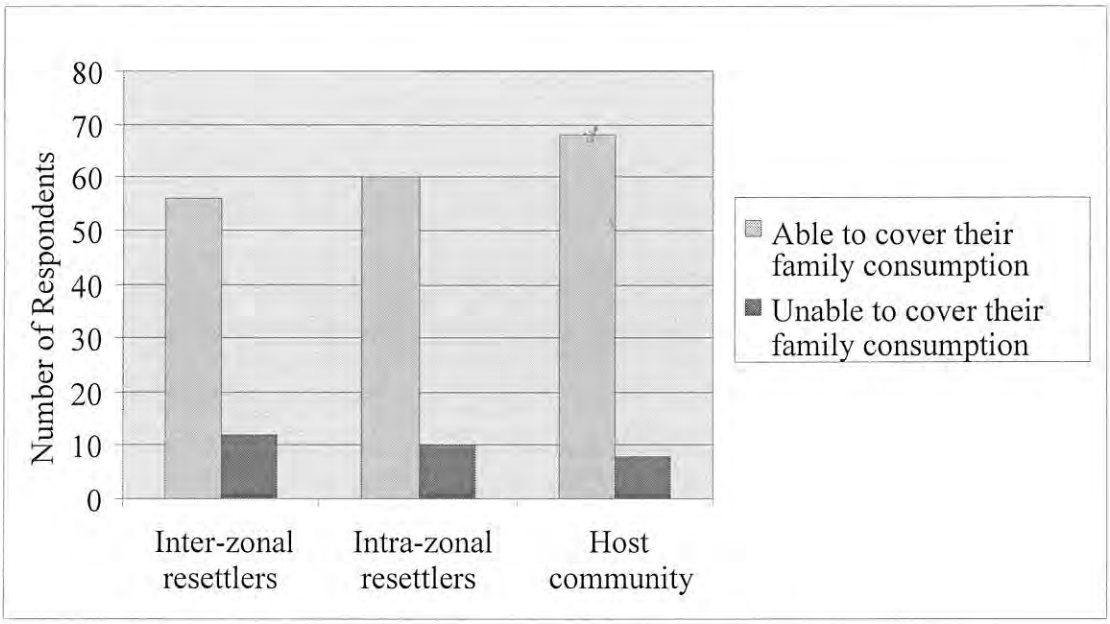


Figure 4.10. The Situation of Household Heads' Family Consumption Through Own- Farm Production

Majority of the respondents or 68 (89.5%), 60 (85.7%) and 56 (82.4%) in host community, intra-zonal resettlement and inter-zonal resettlement areas were able to sufficiently consume their families from their own-farm production respectively in the area. However, 12 (17.6%) sample household heads in inter-zonal resettlement, 10

(14.3%) of those in intra-zonal resettlement areas and 8 (10.5%) in host community areas were sated shortfalls in the satisfaction of their consumption requirements from own-farm production. Those who were not able to consume their families from their crop production are higher in inter-zonal resettlement area compared with others in intra-zonal resettlement and host community areas because of their lateness in relocation. The general reasons for all categories of respondents who are not able to meet the consumption requirement of their families are reported as the demolition of their crop production by wild animals, insects and excessive rain in the area.

Table 4.8. Food Crops Deficit to Household Heads during Last Harvesting Season (Allowing multiple responses)

Types of food crops	Inter-zonal Resettlers		Intra-zonal Resettlers		Host Community		Total	
	Fr	%	Fr	%	Fr	%	Fr	%
Maize	9	75	0	0	7	87.5	16	53.3
Teff	4	33.3	4	40	6	75	14	46.7
Sorghum	12	100	2	20	8	100	22	73.3
Potato	3	25	10	100	8	100	21	70
Onion	0	0	0	0	8	100	8	26.7
Enset product	8	66.7	10	100	8	100	26	86.7
Fruits	1	8.3	3	30	6	75	10	33.3
Total	12	-	10	-	8	-	30	-

Source: Household survey, 2010

Table 4.8 shows that 12, 10 and 8 household heads in inter-zonal intra-zonal and host community areas were faced the food crops deficit during last harvesting season. Al most all food deficient household heads in host community subjected to the shortage of all food crops such as maize, teff, sorghum, potato, onion, enset product and fruits. The reason for the shortage of maize, teff and sorghum is failure to sow these crops on their farm land on time; the prevalence of enset disease to the shortage of enset products and lack of experiences in planting fruits. The reason for the shortage of food crops like maize, sorghum, teff and potato to those in inter-zonal resettlement areas is demolition by wild animals and insects while shortage for enset product is that it has not reached to food

Table 4.9 reveals that all household heads that were unable to meet the consumption need of their families use the strategy of acquiring grains and fruits from market in study area. This may indicate that many households in these areas are using a strategy that is highly depending on their income level. In addition, most of them involve in petty trade to handle the adverse situation. 8 (26.6%) of the food deficient respondents stated that they sell their livestock to fill the gap of food deficit in the area. Some of those in host community area indicated that they involve in daily labor work and handicrafts (blacksmithing and pottery) to survive shortfalls in their crop production.

Those in intra-zonal resettlement and host community areas were exclusively used grain loan from their neighbors when they faced food crop deficit. In general, the study reveals that the coping strategies being used by respondents are not diverse to help them to successfully handle adverse circumstances such as deficit in food crops and income.

4.5. Other Interventions in Enhancing Food Security to Household Heads

4.5.1. Infrastructure Facilities and Social services in Study area

The proper establishment of infrastructure facilities and social services in new resettlement area can make the environment conducive for living and attract the attention of resettlers to be stable in new areas. It will also increase acceptance to the program by the host communities since they can share these facilities with resettlers. The establishment of infrastructure facilities and social services such as health institutions, veterinary, potable drinking water, road, schools, etc will contribute positively in promoting the health of households, improving livestock production, creating market links, etc. As a result, households might attempt to wards food security in sustainable manner.

Among other social service institutions and infrastructure facilities, only health post services, primary schools, burial places and religious institutions commonly exist in all selected kebeles. Other infrastructure and social facilities like safe potable drinking water, veterinary services, road that can serve during all seasons, telephone services, and electricity have not yet been established. However, inter-zonal resettlement kebeles have

access to telephone services, second cycle school (5-8) and well equipped health center from the neighborhood host kebele (Hageli 02). Unlikely, the intra-zonal kebeles do not have proximity to such facilities from their neighborhood host kebele (Oda Gofa) which has not yet been fulfilled with those institutions and services (Annex 13).

In this regard, one of the participants from intra-zonal resettlers in focus group discussions commented:

> *We and our sons have to walk long distances to the town of woreda administration in which telephone, school (1-8) and health center services are available. In addition, due to absence of veterinary services, our cattle are affected by livestock diseases because of the prevalence of tsetse fly and we are exposed also to water born diseases due to absence of safe drinking water.*

This indicates that household heads in intra-zonal resettlement kebeles are suffering more to get health center and telephone services than those in inter-zonal resettlement kebeles.

As it was ensured through personal observation, one of the primary schools which has been constructed by the government in one inter-zonal resettlement kebele (Boyina) is poor equipped with teaching materials and its construction work has not yet been finalized. The director of this primary school who is the participant of focus group discussion had this to say:

> *Due to the absence of other options, the kids of resettlers are learning in this school which has not been finalized in construction and poorly equipped with class room furniture and other teaching materials. But students are learning in this dusty room which generates some insects that can hurt their feet.*

It was observed that 70 quintals of cement purchased for the construction of that school was stored in one class room and had expired. In this regard, the Woreda Food Security Coordination Desk Head noted that the "responsibility of any construction in resettlement areas is that of the Urban and Work Development Bureau at the regional level that

contributed to the occurrence of such problems." This may indicate that how the powers to facilitate the implementation of some infrastructure facilities in areas of resettlement were centralized against the program implementation manual.

The participants of focus group discussion in intra-zonal resettlement areas revealed that primary schools in their kebeles have been constructed by the cooperation of community and the Woreda government four years later their relocation. It was also ensured through personal observation that the furniture in the class rooms are inadequate to children to sit and write appropriately. No any visual teaching aid can be observed outside the class rooms which can easily transmit image building messages about the environment to children. The Chairperson of Muga kebele and school management stated that building has not yet been appropriately painted even with mud and the establishment of windows has not yet been finalized. He also added the shortage of text books to students as another problem that affects the teaching and learning process in the area. The director of that school also said:

> *The offices to director and staff have not yet been constructed and we have no places to put teaching materials at the end of classes. As a result, we influenced to take those things always to our home. In addition, the shelter to staff has not been constructed appropriately and we are suffering during rainy season.*

School (1-4) in intra-zonal Resettlement area

School (1-4) in inter-zonal resettlement area

The health post has not been constructed in inter-zonal resettlement areas appropriately. For instance, the extension workers are providing the service in agricultural development center by sharing the office with development agents in Boyina kebele. This might reduce the belongingness of workers to the institution and can affect the quality of service provision to society. In Muga and Angella kebeles of intra-zonal resettlement areas, there are also health posts constructed by the cooperation of community which serve jointly as health institution and office to kebele administrators. In addition, there is no agricultural development center to these two intra-zonal resettlement kebeles where development agents can live and deliver their extension services to farmers. As a result, the development agents influenced to walk long distances to their relatives' home after their work frequently. This might affect their morale and effectiveness in contributing to the improvement of households' agricultural production in the area.

Health post & Agricultural Development Center jointly (Intra-zonal resettlement area}

Health post (Intra-zonal resettlement area)

In addition, participants of focus group discussions from inter-zonal resettlement kebeles reported the problem related with safe potable drinking water. This is what one of them had to say.

> *Our spouses walk on foot about 4 hours distance of double trip to fetch drinking water from unprotected river because the water pump established at time of our relocation broken down after giving service for some time and no repairs have been undertaken yet.*

Those from intra-zonal focus group discussion reported that they are using river water for drinking because of the absence of safe potable water in the area. This indicates that households from both inter-zonal and intra-zonal resettlement areas are vulnerable to water borne diseases that can affect their health. As a result, their ability to increase productivity will be highly influenced in their attempt to attain food security in the area for future unless these problems are solved by concerning bodies on time.

The current government has considered the importance of prior establishment of infrastructure and social services in resettlement areas and has prepared the implementation manual. This manual in principle states that the minimum social services and infrastructure facilities such as health post, school, safe potable water, road, rural credit services, agricultural extension services, etc. should be established before moving people to new areas (New Coalition for Food Security in Ethiopia, 2003).

The officials in the area also argue that the resettlement program was implemented with proper plan and through attention. This is clear from the following view of a key informant, the Food Security Program Coordinator of Dawuro Zone.

> *In collaboration with regional food security program bureau, we established the basic social service facilities such as safe potable drinking water, grain mills, school, and health institutions to all inter-zonal resettlement areas and they are serving the community appropriately now. In addition, the road that serves during dry season has been constructed but, it now needs maintenance to provide transportation service.*

However, the study indicates that the establishment of infrastructure and social services prior to the implementation of resettlement program is below the minimum standard and the services have not yet been improved in the area. This reveals that the implementation of resettlement program in the area is very spontaneous. The finding of this study concurs to other studies by Asfaw (2005); Mellese (2005); Masresha (2008) in which the establishment of infrastructure and social services are reported below the expectation of resettlers and the program implementation has been argued spontaneous.

4.5.2. Environmental Management and Rehabilitation

According to Workneh (2008), environmental degradation is one of the determinant factors to chronic food insecurity because the fertility and productivity of the land is determined by the environmental conditions. By considering the impact of environmental conditions, the implementation manual of resettlement program of the current government of Ethiopia state that due attention is given to manage it while implementing the resettlement program. Table 4.10 shows how household heads are using and conserving natural resources in the study area.

Table 4.10.Household Heads' Reaction to Their Dependence on Forest

Items	Inter-zonal resettlers		Intra-zonal resettlers		Host community		Total	
	Fr	%	Fr	%	Fr	%	Fr	%
Place of Cattle Keeping by household heads.								
On own land	1	1.5	66	94.3	62	81.6	129	60.3
On Common grazing land	67	98.5	4	5.7	14	18.4	85	39.7
Use forage	0	0	0	0	0	0	0	0
Total	**68**	**100**	**70**	**100**	**76**	**100**	**214**	**100**
Source of fuel to household heads at home.								
Forest wood	68	100	70	100	37	48.7	175	81.8
Animal dung	0	0	0	0	0	0	0	0
Crop residual	0	0	0	0	1	1.3	1	0.5
Forest wood& kerosene	0	0	0	0	38	50	38	17.7
Total	**68**	**100**	**70**	**100**	**76**	**100**	**214**	**100**
Source to get construction materials.								
Forest	68	100	70	100	47	61.8	185	86.5
Trees planted on own land	0	0	0	0	14	18.4	14	6.5
Forest & trees from own land	0	0	0	0	10	13.2	10	4.7
Others [14]	0	0	0	0	5	6.6	5	2.3
Total	**68**	**100**	**70**	**100**	**76**	**100**	**214**	**100**
Distance of household heads' home to forest.								
Near	39	57.4	52	74.3	16	21.1	107	50.0
Very far	12	17.6	16	22.8	60	78.9	88	41.1
It is on cleared forest area	17	25	2	2.9	0	0	19	8.9
Total	**68**	**100**	**70**	**100**	**76**	**100**	**214**	**100**

Source: Household survey, 2010

[14] *Others include buying trees for construction of shelter from other individuals in the area*

Table 4.10 shows that majority of respondents or 66 (94.3%) and 62(81.6%) in intra- zonal resettlement and host community areas respectively keep their cattle on their own land while 67 (98.5%) of those in inter-zonal resettlement areas keep on common grazing lands. None of them from all areas have been experienced to use forage to feed their cattle.

Concerning the sources of fuel, all respondents in all areas are entirely using forest wood as the source of fuel in their home. The study shows that those in inter-zonal and intra-zonal resettlement do not have experience in using other alternatives such as crop residue and animal dung except few household heads in host community areas who use crop residue and kerosene to some extent. In addition, all respondents in inter-zonal resettlement and intra-zonal resettlement areas use forest trees for the construction of their shelter. But 29 (38.2%) of those in host community revealed that they use trees planted by themselves on their land, combination of forest wood and trees planted on their land and others. This indicates that host community is relatively using trees planted by them which will reduce their reliance on forest compared with those in inter-zonal and intra-zonal resettlement areas.

The majority of respondents' residence in inter-zonal and intra-zonal resettlement areas found to be near to the forest area compared with those in host community where the residence of few households is revealed near to forest. The study also shows that most residence of those in intra-zonal resettlement areas is near to forest areas than the host community and inter-zonal resettlers and some of others in inter-zonal resettlement areas have been relocated by clearing forest areas. This may indicate that the attention given to the management of forest depletion is low in the area while implementing the program.

Household heads relocated on cleared forest area (inter-zonal resettlement area)

Household heads relocated inside forest (intra-zonal resettlement area)

In general, the cattle keeping practice of the sample household heads in inter-zonal and inter-zonal resettlement areas is contributing for land degradation, the source of fuel and construction materials highly relied on forest and the residences of more household heads in intra-zonal resettlement areas are nearer to forest which will encourage them to harness forest. In addition, some inter-zonal resettlers have been relocated by clearing forest though the officials in the area stated that thorough attention was given to the management of forest during the implementation of the resettlement program.

One of the officials who are involved in key informants' interviews had this to say:

> *Although the area selected for resettlement program is close to forest, we demarcated the area that is covered with dense forest prior to relocation and new comers have been relocated mostly on areas covered with savanna grasses. In addition, we frequently advise and train them to rehabilitate the environment by planting new trees and not to cut trees from areas demarcated as forest.*

Besides, the resettlement document of current government stated that due attention would be given to the natural resource management during implementation of the resettlement program, but the care given to the management of natural resources in the study area is poor which concurs with the study by Assefa (2005) in different resettlement sites in

Ethiopia, reported as forest and wild life resources were not protected as what has been set out in the resettlement program implementation manual.

In addition, the current practices of sample household heads oppose the Environmental policy designed at national level with the following goals:

> *To improve and enhance the health and quality of life of all Ethiopians and to promote sustainable social and economic development through the sound management and use of natural, human-made and cultural resources and the environment as a whole so as to meet the needs of the present generation without compromising the ability of future generations to meet their own needs. (EPA& MOEDC, 1997).*

Consequently, if the reliance of household heads on forest and management practices continue in this way, it might be possible to argue that the environment gradually led to degradation and affects the fertility of lands and agricultural productivity to household heads which can expose them to chronic food security as what happened in their origin.

Table 4. 11. Household Heads Response on Environmental Rehabilitation

Items	Inter-zonal resettlers		Intra-zonal resettlers		Host community		Total	
	Fr	%	Fr	%	Fr	%	Fr	%
Training provision on environment management.								
Yes	24	35.3	35	50	73	96.1	132	61.7
No	44	64.7	35	50	3	3.9	82	38.3
Total	**68**	**100**	**70**	**100**	**76**	**100**	**214**	**100**
Involvement on environmental rehabilitation.								
Yes	54	79.4	52	74.3	71	93.4	177	82.7
No	14	20.6	18	25.7	5	6.6	37	17.3
Total	**68**	**100**	**70**	**100**	**76**	**100**	**214**	**100**
Experience in new tree plantation in the area.								
Yes	18	26.5	28	40	69	90.8	115	53.7
No	50	73.5	42	60	7	9.2	99	46.3
Total	**68**	**100**	**70**	**100**	**76**	**100**	**214**	**100**

Source: Household survey, 2010

Table 4. 11 depicts that majority of respondents or 35 (50%) and 73 (96.1%) in intra-zonal resettlement and host community areas have been trained in environmental management respectively. Only 24 (35.3%) of those in inter-zonal resettlement areas have been trained. This may indicate that majority of respondents in inter-zonal resettlement area have not been adequately trained on how to manage the environment compared with others.

Concerning the environmental rehabilitation practices of households, In addition, 54 (79.4%), 52(74.3%) and 71 (93.4%) of the respondents in inter-zonal resettlement, intra-zonal resettlement and host community areas reported as they participate in different environmental rehabilitation practices like planting trees on hill areas, seedling, water source development, etc while 14 (20.6%), 18 (25.7%) and 5 (6.6%) are not involving in such programs. This may indicate that there are some people who are not rehabilitating their environment in the area.

Majority of those in host community areas or 69 (90.8%) reported that they have experience in planting new trees in their area of land. Only 28 (40%) and 18 (26.5%) of those in intra-zonal resettlement and inter-zonal resettlement areas involve in new tree plantation. This may imply that majority of the respondents in inter–zonal and intra-zonal resettlement areas have less practice in planting new trees to rehabilitate their environment compared with those in host community areas. This finding contradicts to what was stated in the resettlement program implementation manual (New coalition for food security in Ethiopia, 2003).

4.5.3. Asset Building Strategies and Safety Net Program to Enhance Food Security

The government assists resettlers only until their first year harvesting and withdraws its support on the assumption that they can stand on their own feet and survive after their first year harvest (New Coalition for Food security in Ethiopia, 2003). However, it might be suspicious to assume that household heads can ensure their food security through agricultural activities immediately at the end of first year after their relocation. Shortage of rain in low land areas, insufficient distribution of fertilizers and improved seeds, less adaptation of resettlers to new environment, shortage of income at early time etc. might contribute to the problem.

Thus, the introduction of other food security program strategies that vary from the direct support of the government is inevitable to support the resettlement program to sustain its contribution to food security. These strategies will help household heads to build their asset; undertake their regular agricultural production in sustainable manner without interruption due to drought; enhance diversity of agricultural activities and income sources, ensure sustainability of better health conditions, help to manage family size, etc which are positively related with sustainable food security.

Among the strategies of food security program which enhance asset protection and productivity of households, improved seeds and fertilizer distribution to support cropping, family planning, awareness creation on HIV/AIDS, gender mainstreaming, rural credit services and supporting women households are practiced commonly in inter-zonal resettlement, intra-resettlement and host communities in study area. However, the degree of actual implementation varies from area to area and from person to person as reported by resettlers and host community members during household survey. Consequently, 57 (83.8%), 60 (88.2%) of the respondents in inter-zonal resettlement areas used better seeds and fertilizers compared with 8 (11.4%) and 10 (14.3%) of those in intra-zonal resettlement and 25 (32.9%) and 31 (40.8%) of the host community respectively (Annex 14). This may indicate that majority of those in inter-zonal resettlement area have used improved seeds and fertilizers compared with others in the area.

Majority of the respondents or 185 (86.4%), 202 (94.2%) and 50 (23.4%) indicated that they have received family planning services, aware of HIV/AIDS and received credit services respectively. This may imply that household heads have better access to family planning and awareness creation on HIV/AIDS while credit services have not yet been improved in the area (Annex 14). In addition, it was found that those in intra-zonal resettlement area have been benefited more from credit services compared with others.

The installment of irrigation system, water harvesting, market access, food for work program that can help households to generate additional income, and local saving institutions are not entirely exist in study area to benefit households. From this finding, it might be possible to argue that the agricultural production of households relies entirely on

rainfall that fluctuates frequently which might influence them to produce crops seasonally during normal condition and lead to food crop deficits during shortage of it. As a result, they may be exposed to transitory food insecurity to which drought contributes (Devruex, 2000).

Furthermore, other interventions like food-for work program and other off-farm activities which play a significant role in generating additional income to build households' assets and helps to cope with adverse conditions do not exist in the study area.

The Productive Safety Net Program (PSNP) is considered as an independent program and benefits to people who are out of the resettlement area. But, it is possible to bring this program to the resettlement area after the government has stopped its direct assistance to resettlers since it is one of the livelihood strategies which can help households to diversify the sources of their income to protect their asset.

In addition, the respondents from both inter-zonal and intra-zonal resettlement areas have reported during household survey that they do not have even small village market in their respective kebeles from which they can purchase some consumption items and sell also small items that might require extra effort if needed to sell to distant markets.

The participants of focus group discussion noticed the problem related with market access and local saving institution as follows:

> *Because of the absence of market access we are forced to sell the crop items produced with cheap price to local retailers and using unnecessarily for consumption which is highly discouraging us to harvest in abundant. In addition, we do not have officially organized saving institutions to develop saving culture rather than local iddir/iquib in which we deposit money to use after some periods of time without any interest.*

This implies that the sample household heads in inter-zonal and intra-zonal resettlement areas are suffering from lack of market and organized saving institutions that encourage the culture of saving which might serve as a coping strategy when they face challenges that require money.

Besides, gender equality is better in inter-zonal resettlement areas than the counterparts. Some of the respondents or 62 (91.2%), 25 (35.7%) and 16 (21.1%) of the total respondents in inter-zonal resettlement, intra-zonal resettlement and host community areas respectively reported that they can share duties of their spouses at home as well as out of home (Annex 14). In addition, it was reported during focus group discussion that the organized women households are eligible to credit services equally with organized male households and there is a practice of affirmative action to females regarding employment opportunities in government organizations.

However, there is still a gap especially in division of duties at home. This is clear from the following view of women households during focus group discussion.

> *The tasks at home such as cooking, child care, water fetching, cleaning home, washing clothes of all families, and purchasing consumption items from market, etc are entirely performed by women and we are not encouraged to involve in field works such as farming with our spouses. In addition, we do not have our own income generating sources.*

This implies that there is a limitation to women households to involve in more economic activities which build their economic status and reduce income dependence on their husbands. In general, the study shows that gender equality has not yet been improved in the study areas.

Chapter Five: Summary of Findings, Conclusion and Recommendation

5.1. Summary of Findings

The international experiences show that the development projects, urbanization and industrialization, political calamity and food insecurity are among other factors that influence different developing countries to launch resettlement program. The current government of Ethiopia has launched the resettlement program in the country for the third time to tackle the problem of households' food insecurity. The program was intended to be based on some principles like consultation with resettlers and host communities; voluntary based; establishment of minimum standard of infrastructure and social facilities and proper planning among others.

This particular study has been conducted to assess the contribution of inter-zonal and intra-zonal resettlement programs with integration of other food security strategies to sustainable food security in Dawuro zone by employing the comparative research approach.

The study reveals that the majority of the participants in inter-zonal resettlement, intra-zonal resettlement and host community areas have been consulted to make their own decisions and the movement of resettlers was found to be voluntary basis though few people reported that they moved without their consent. It was also found that the implementation of resettlement program has preceded the establishment of minimum standard infrastructure facilities and other social services contrary to implementation manual.

In inter-zonal and intra-zonal resettlement areas, the health post service is provided to the community by sharing the building with other sectors and ill-equipped with equipment, material and human resources to provide adequate services. Resettlers have been relocated prior to the construction of schools and students are learning still in the buildings that have not been completed in construction and unfulfilled with furniture, text books, etc. In the absence of safe drinking water to inter-zonal and intra-zonal resettlers, unprotected springs and rivers are being used for drinking. The veterinary service has not yet been established but the resettlers revealed that the death of livestock is increasing from time to time

because of the prevalence of trypanosomiasis in the area. The road that has been constructed latter the program was completely deteriorated and unable to give service. As, the result, household heads are suffering to get transportation services to sell their agricultural outputs and to access health services from other areas.

Although the force imposed pressure over intra-zonal resettlers is as same as that of inter-zonal resettlers, the intra-zonal resettlers have not been provided with any benefit packages which is provided to inter-zonal ones during their relocation. The socio-economic relationship between inter-zonal resettlers and host community is relatively limited to religion and mourning compared with that of intra-zonal resettlers and host community where relation in marriage, language, credit services and land share in addition to mourning and religion is perceived as better. However, no significant personal conflicts have occurred between host community and resettlers because of their ethnic differences rather than the case of border demarcation and few people who reported as they faced conflict because of using common grazing land.

The farm land distribution to those in inter-zonal resettlement area is 2 hectares and above while some of those in host community and intra-zonal resettlement areas have below 2 hectares and its distribution has not taken the households' family size in to consideration. The annual crop and livestock production, and annual income level of household heads have shown improvement after the implementation of resettlement program in the study area. However, the agricultural production and income sources are entirely vulnerable to shocks because of its reliance on rain fed agricultural outputs. The installments of small scale irrigations and water harvesting program that can reduce the reliance of agriculture on rainfall have not yet been come to existence.

It was also found that the food utilization practices of the household heads have not yet been improved in the area because their daily diet intake is extremely limited to few food stuffs and the diet intake is poor on the basis of time to many of them. The study also shows that livestock sale, acquiring grain from market and requesting grain loan from neighbors are the dominant coping strategies that household heads are using during the deficit of their agricultural outputs. Only few people are experienced with petty trade, labor

work and handicraft (blacksmithing and pottery) to cope with adverse circumstances in the area like deficit in their food crops.

The resettlement program was not implemented with consideration of environmental impacts contrary to the environmental policy and resettlement program manual because resettlers have been relocated with in the forest and also clearing the forest areas for crop harvesting. In addition, those in inter-zonal and intra-zonal resettlement areas are harnessing forest for their shelter construction, using as a source of fuel in their home and are not using other alternatives like animal dung, crop residual; not experienced in planting new trees to rehabilitate their area. This will gradually bring the problem of environmental degradation of other areas that leads to chronic food security.

The introduction of off-farm activities like petty trade, handicrafts, productive safety net programs and market links that enable household heads to generate additional income for building/ protecting their asset and helping them to cope with adverse circumstances to sustain food security are minimal and do not exist in study area. Better seeds and fertilizer that can improve agricultural production have been distributed to most of sample household heads in study area. The distribution is satisfactory to inter-zonal resettlement areas compared with intra-zonal resettlement and host community areas because of the better experience of inter-zonal resettlers in using better seeds and fertilizers when they were at their origin. It was also found that the credit services are not adequately accessible to household heads and they do not have local saving institutions that can help them to develop their saving culture. As a result, they may face shortage of money to involve in additional income generating off-farm activities.

The women households have equal access with male households to credit services and there is a practice of affirmative action to enhance the employment of females in government organizations in study area. However, they are not involving in economic activities which enhance their economic status.

- The current resettlement program manual states that the participants to be provided with two hectares of farm land and those in inter-zonal resettlement area have not been provided below the threshold. However, the rationality for this size of farm land is not clearly indicated and it has not taken the households' family size in to consideration. Thus, the distribution of improved seeds and fertilizer should be enhanced to increase the productivity with current land holding even to feed their current families and the family size should be considered while providing farm land to people in new areas for future.

- Both inter-zonal and intra-zonal resettlers are limited to the abundant production of only maize, sorghum and potatoes. Thus, it is very important to encourage resettlers to diversify their crop production, vegetation, and fruit plantation. In addition, the area of all types of resettlers is suitable for enset plantation that has high resistance to drought and can help households to cope the adverse deficit in crop production. Therefore, resettlers should be significantly advised by local government bodies to plant enset intensively in their garden.

- On-farming activities in both inter-zonal and intra-zonal resettlers predominantly rely on rain fall which influences household heads to harvest by waiting the rainy seasons and also entirely vulnerable to shocks when shortage of rain fall happened during its season. Therefore, all stakeholders should attempt to establish small scale irrigation schemes and develop water resources such as water harvesting systems in the area.

- None of household heads in both inter-zonal and intra-zonal resettlement areas have been engaged in off- farm activities like handicrafts, agricultural labor works and only few involve in small scale local trades which will help them to handle the deficit in crop production and promote their assets. Thus, the local government bodies should periodically train and advise male and female households to involve in different off-farm activities that can diversify their income generation sources. In addition, the micro finance institutions should give attention to the resettlement areas and expand the credit and saving services to household heads.

- Food-for work program (Productive Safety Net Program) is among the strategies to protect assets to household heads. However, it is being implemented exclusively in drought prone areas where resettlement program has not been implemented. But it is also very important to introduce this program in resettlement areas after the assistance of government has been stopped to encourage the labor available people to engage in such activities to generate additional income and also to directly help vulnerable segment of household heads on timely manner.

- The supply of children and maternal nutrition has started in resettlement areas, but it is not satisfactory in inter-zonal resettlement areas when compared with intra-zonal ones. Thus, the distribution should be improved to this area. In addition, the feeding practice of most household heads has not yet been improved in the study area. Therefore, periodical training should be given to household heads on diet intake through health institutions.

- The implementation of resettlement program has not considered environmental impacts in both inter-zonal and intra-zonal resettlement areas because households are entirely harnessing the forest for their shelter construction, use as a source of fuel at home for cooking and keeping their cattle on common grazing lands frequently. Therefore, it is very important to train household heads in both resettlement areas to plant new trees around their farm lands that can be used for construction as well as fuel sources and to use crop residues and animal dung to reduce their reliance on forest. In addition, they should be trained by the agricultural professionals to plant trees used for animal forage to reduce the dependence of cattle on land grazing.

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Annexes

Annex 1: Questionnaire for Resettlers

The objective of this questionnaire is to collect information for assessing the contribution of resettlement program to sustainable food security in Dawuro zone resettlement scheme. Accordingly, the emphasis is given to Essera inter-zonal resettlement and Tocha intra-zonal resettlement areas for MA thesis by Terefe Zeleke who is the prospective post-graduate student at Addis Ababa University. So your information will be used only for this purpose and treated confidentially. Thank you for your cooperation in advance.

Note: You are not required to give your name.

Household's code: _____ (Filled by researcher)

Enumerator's name: _____ (Filled by enumerator)

Instruction: ***Encircle your appropriate answer among alternatives.***

Personal background:

1.1. Household's site/kebele: _____

1.2. Sex: 1. Male 2. Female

1.3. Family size: _____

1.4. Age: 1. 15 – 20 2. 20 – 25 3. 25 - 30
4. 30 – 35 5. 35 – 40 6. Above 40

1.5. Education: 1. Illiterate 2. 1 – 8 3. 9 – 12
4. 12 complete 5. Certificate 6. Other: Specify,_____

1.6. Marital status: 1. Married 2. Single
3. Widow 4. Separated 5. Other, Specify,_____

1.7. Ethnical background: 1. Kambata 2. Hadiya 3.Wolayita
4. Sidama 5. Dawuro
6.Other, specify_____

1.8. Religion: - 1. Orthodox 2. Protestant 3. Muslim
4. Other, Specify _____

1.9. Settlement: 1. Inter – zonal 2. Intra – zonal
3. Host community

2. Resettlers participation and consultation about the program

2.1. Have you been well informed about resettlement before moving from your origin? 1. Yes 2. No

2.2. Have you moved to the new settlement voluntarily?

1. Yes 2. No

2.3. What selection criteria were used to select resettlers in the origin?

1. Small farm land size at origin
2. Family size at origin
3. Land degradation and fertility problem at origin
4. Shortage of rain at origin
5. Age and sex
6. Less agricultural production
7. Absence of assistance for farming
8. Other, specific _____

2.4 Do you have any interest to return to your place of origin?

1. Yes 2. No

2.5. How do you rate the convenience of your resettlement area of living compared to origin?

1. Higher 2. Medim 3. Less

3. Food Availability to households through different on- farm activities

3.1. How do you see your farm land fertility in new resettlement area Compared to origins?

1. Higher 2. Medium 3. Less

3.2. What is the size of farm land you have been given in resettlement area?

1. Less than 2 hectare 2. Two hectare 3. Above two hectare

3.3. How do you see the size of your new farm land compared to your origin? 1. Higher 2. Medium 3. Less

3.4. How many times do you harvest in new site per year?

1. Once 2. Twice 3. Three times

3.5. What tools do you use to harvest crops?

1. Oxen 2. Traditional hand tools 3. Others, specify_____

3.6. On what your crop production depends?

1. Rainfall 2. Irrigation 3. Water harvesting

3.7 Crop farming by resettlers during last harvesting seasons:

Types of crops	Area cultivated (ha)	Quantity Produced(qu)	Quantity sold (qu)	Quantity consumed(qu)	Quantity purchased (qu)
Maize					
Teff					
Wheat					
Barely					
Sorghum					
Beans					
Peas					
Coffee					
Others					

If you produce, utilize and acquire other crops, Specify:

_____

_____

3.8. What is the total amount of your annual crop production before and after resettlement (in quintal? (Encircle the right one).

Crop production in origin(in quintal)	Crop production in resettlement area (in quintal)
1. Below 10	1. Below 10
2. 10 – 20	2. 10 – 20
3. 20 – 30	3. 20 – 30
4. 30 – 40	4. 30 – 40
5. Above 40	5. Above 40

3.9. Does your crop production cover your families' annual consumption?

1. Yes 2. No

3.11.1. How do you rate vegetable production in new area with your origin?

1. Best 2. Better 3. Poor

3.12. What is the number of the following livestocks you owned in your origin and resettlement area?

Livestock	Origin	New area
Cow		
Ox		
Sheep		
Goat		
Poultry		
Bee keeping (in hives)		

4. Food Access to households through diversified income source

4.1. What is your annual income before and after resettlement (in Br)? (Encircle the right one).

Annual income in origin (in Br)	Annual income in resettlement area (in Br)
1. Below 1000	1. Below 1000
2. 1000 – 2000	3. 1000 – 2000
3. 2001 – 3000	4. 2001 – 3000
4. 3001 – 4000	5. 3001 – 4000
5. Above 4000	6. Above 4000

4.2 What are the main source of you income in new area?

1. Crop sale 2. Livestock sale 3. Bee keeping

4. Petty trade (condiments retail, charcoal sale, liquor sale, etc)

5. Vegetables and fruits salesale

6. Crop and livestock sale 7. Crop, livestock and bee honey sale

8. Remittances from relatives 9. Handicrafts (write the type,_____)

10. Other if any, _____

4. 3. Off-farm activities undertaken by resettlers

Thick the off – farm activities listed in the following table on which you engaged in both areas. More than one response is possible.

1. Yes 2. No (Thick "X" for your response)

Activities	Area			
	Origin		Resettlement area	
	1	2	1	2
1. Involvement in food for work activities.				
2. Cloth weaving				
3. Black smith				
4. pottery				
5. petty trade				
6. Labor work				
7. Tannery				
8. Others				

4.4. What is the amount of revenue you generate from the following off- farming activities annually?

Types of off-farming activities	Revenue generating (in Br)
1. Involvement in food for work activities.	
2. Cloth weaving	
3. Black smith	
4. pottery	
5. petty trade	
6. Labor work	
7. Tannery	
8. Others	

7. Government assistance to resettlers

7.1. What assistances have you received from the government in new areas up to now?

1. Yes 2. No (Thick ("X" for your appropriate answer).

Assistance	Response	
	1	2
1. One ox		
2. Pair of ox		
3. Hand tools		
4. Utensils		
5. Clothes		
6. Food ration		
7. Shelter		
8. Land		

8. Socio-economic and cultural relationship between resettlers and host communities

8.1. Do you communicate with host communities by using the same language?

1. Yes 2. No

8.2. How do you see your culture with the culture of the host communities?

1. Similar 2. Quite different

8.3. How do you see the cultural relationship among resettlers themselves?

1. Similar 2. Quite different

8.4. Is there any conflict between resettlers and host communities in the area?

1. Yes 2. No

If your answer is yes, why:

8.5. How do you evaluate the frequency of conflict occurrence between resettlers and host communities?

1. Always 2. Some times 3. Never

8.6 How do you see the interaction between resettlers and host communities?

1. Best 2. Better 3. Poor

(Use numbers for your response)

Areas of relation ship	Resettlers with host communities			Resettlers among them selves		
	1.	2.	3	1.	2.	3.
1. Religion						
2. Mourning and funeral ceremony						
3. Marriage						
4. Marketing/ transaction						
5. Development activities						
6. Iddir/ Ikub						
7. Labor share/"Debbo"						
8. Land share						

9. Infrastructure and social service facilities

9.1. How do you see the availability and functions of the following infrastructure and social services? 1. Yes 2. No. (Thick "X" for your response)

Facilities	Response	
	1	2
Health post		
Clinics		
Health center		
School		
Shelter		
Safe drink water		
Veterinary		
Road		

Postal service		
Credit facility		
Market access		
Telephone service		
Electricity		
Grave site		
Religion institutions		
Agricultural development center		
Grain mill established		
Farmers training institution established and functioning		

10. Environmental Management and overall success

10.1. Where do you keep your livestock?

1. On my own land
2. Keeping on common grazing land
3. Using forage crops/plants
4. Other, specify: _____

10.2. Where do you get your house construction materials?

1. Forest 2. Stone
3. Other, specify: _____

10.3. What do you use for fuel?

1. Wood from forest 2. Charcoal 3. Animal dung
4. Electricity 5. Kerosene 6. Crop residual

10.4. Your farm land is:

1. Near to forest 2. Far a way from forest 3. Cleared forest land

10.5. Have you been trained about environmental management prior and after coming to new area?

1. Yes 2. No

10.6. Is there a program in which you involve for rehabilitating the environment?

1. Yes 2. No

10. 7. Have you ever planted indigenous trees around your residence and farm land?

1. Yes 2. No

10.8. Do you know any guideline to conserve your environment?

1. Yes 2. No

11. Asset building and other strategies implemented to enhance food security.

1. Yes 2. No (Thick 'X' for your response).

Programs	Response	
	1	2
1. Irrigation system installed.		
2. Water harvesting program been trained and established.		
3. Better varieties of seeds provided.		
4. Fertilizers regularly supplied.		
5. Credit and saving systems are existing.		
6. Family planning program is existing		
7. Awareness creation on HIV/AIDS is being carried out.		
8. Nutrition supply		
9. Employment opportunity in formal sector is existing.		
10. Employment opportunity is non – formal sector is existing.		
11. Access for market improved.		
12. Food- for work activities are designed and implemented.		
13. Support for women households is existing in the area.		

12. What are the major challenges that you are facing in the new area after the program?

_____

_____

_____

13. What strategies do you suggest to solve the existing challenges?

_____

_____

_____

_____

Annex 2: Questionnaire for Host Communities

The objective of this questionnaire is to collect information for assessing the contribution of resettlement program to sustainable food security in Dawuro zone resettlement scheme. Accordingly, the emphasis is given to Essera inter-zonal resettlement and Tocha intra-zonal resettlement areas for MA thesis by Terefe Zeleke who is the prospective post-graduate student at Addis Ababa University. So your information will be used only for this purpose and treated confidentially. Thank you for your cooperation in advance.

Note: You are not required to give your name.

Household's code: _____ (Filled by researcher)

Enumerator's name: _____ (Filled by enumerator)

Instruction: ***Encircle your appropriate answer among alternatives.***

Personal back ground:

1.1. Kebele: _____

1.2. Sex: 1. Male 2. Female

1.3 Age: 1. 15-20 years 2. 20-25 years 3. 25-30 years
4. 30-35 years 5. 35-40 years 6. Above 40 year

1.4. Family size: _____

1.5. Religion: 1. Orthodox 2. Protestant 3. Muslim
4. Traditional 5. Other (if any)

1.6. Education: 1. Illiterate 2. Adult education 3.1-8 grade
4. 9-12 5. Certificate
6. Other, specify, _____

1.7. Marital status: 1. Married 2. Single 3. Widow

1.8. Relocation : 1. Inter-zonal resettler 2. Intra-zonal resettler
3. Host community

2. Host communities' participation:

2.1. Have you been consulted about resettlement program before its implementation by the government bodies?

1. Yes 2. No

2.2. Have you been informed about facilities to be undertaken because of the resettlement program to the host communities?

1. Yes 2. No

2.3. Did you participate in site identification and other preparations for resettlement program? 1. Yes 2. No

2.4. Have you been informed about the socio-culture of resttlers before they came to the resettlement area? 1. Yes 2. No

3. Food Availability through on- farm activities to households

3.1. How do you see your farm land fertility? 1. Higher 2. Medium 3. Less

3.2. What is the size of your current farm land size?

1. Less than 2 hectare 2. Two hectare 3. Above two hectare

3.3. How many times do you harvest in new site per year

1. Once 2. Twice 3. Three times

3.4. What tools do you use to harvest crops?

1. Oxen 2. Traditional hand tools 3. Others, specify_____

3.5. On what your crop production depends?

1. Rainfall 2. Irrigation 3. Water harvesting

3.6. Crop farming by host community during last harvesting seasons:

Types of crops	Area cultivated (ha)	Quantity Produced(qu)	Quantity sold (qu)	Quantity consumed(qu)	Quantity purchased (qu)
Maize					
Teff					
Wheat					
Barely					
Sorghum					
Beans					
Peas					
Coffee					
Others					

If you produce, utilize and acquire other crops, Specify:

_____

_____

3.7. What is the total amount of your annual crop production before and after resettlement (in quintal? (Encircle the right one).

Crop production in origin(in quintal)	Crop production in resettlement area (in quintal)
1. Below 10	1. Below 10
2. 10 – 20	2. 10 – 20
3. 20 – 30	3. 20 – 30
4. 30 – 40	4. 30 – 40
5. Above 40	5. Above 40

3.8. Does your crop production cover your families' annual consumption?

1. Yes 2. No

If your answer for the above question is no, how do you feed them?

_____

_____

3.9. Fruits cultivation by host community during last harvesting seasons:

Type of fruits	Area cultivated(ha)	Quantity Produced (qu)	Quantity sold (qu)	Quantity consumed(qu)	Quantity purchased(qu)
Banana					
Enset					
Orange					
Mango					
Papaya					
Avocado					
Others					

Specify others (if any).

_____

3.9.1. How do you rate fruit production after resettlement program in the area?

1. Better 2. Better 3. Poor

3.10. Vegetable production by host community last seasons (in qu):

Types of vegetables	Area cultivated	Quantity produced	Quantity sold	Quantity consumed	Quantity purchased
Cabbage					
Green paper					
Potato					
Tomato					
Carrot					

If any other, specify:

_____

_____

3.10.1. How do you rate vegetable production after resettlement program?

1. Best 2. Better 3. Poor

3.11. What is the number of the following livestock you owned before and after resettlement program?

Livestock	Before resettlement program	After resettlement program
Cow		
Ox		
Sheep		
Goat		
Poultry		
Bee keeping (in hives)		

4. Food Access to households through diversified income source

4.1. What is your annual income before and after resettlement (in Br)? (Encircle the right one).

Annual income Before resettlement program (in Br)	Annual income After resettlement program (in Br)
1. Below 1000	1. Below 1000
2. 1000 – 2000	3. 1000 – 2000
3. 2001 – 3000	4. 2001 – 3000
4. 3001 – 4000	5. 3001 – 4000
5. Above 4000	6. Above 4000

4.2 What are the main source of you income in new area?

1. Crop sale 2. Livestock sale 3. Bee keeping

4. Petty trade (condiments retail, charcoal sale, liquor sale, etc)

5. Vegetables and fruits salesale

6. Crop and livestock sale 7. Crop, livestock and bee honey sale

8. Remittances from relatives 9. Handicrafts (write the type,_____)

10. Other if any, _____

4. 3. Off-farm activities undertaken by host community

Thick the off – farm activities listed in the following table on which you engaged. More than one response is possible.

1. Yes 2. No (Thick "X" for your response)

Activities	Before resettlement		After resettlement	
	1	2	1	2
1. Involvement in food for work activities.				
2. Cloth weaving				
3. Black smith				
4. pottery				
5. petty trade				
6. Labor work				
7. Tannery				
8.Others				

4.4. What is the amount of revenue you generate from the following off- farming activities annually?

Types of off-farming activities	Revenue generating (in Br)
1. Involvement in food -for -work activities.	
2. Cloth weaving	
3. Black smith	
4. pottery	
5. petty trade	
6. Labor work	
7. Tannery	
8. Others	

Specify if there is any

_____

_____

5. Food utilization by households

5.1. Which of the following food stuffs do you feed with your families?

Thick (X) for your response.

1. Yes 2. No

Type of meal	1	2
1. Bread		
2. Biscuit		
3. Porridge		
4. Injera		
5. Egg		
6. Milk & milk products		
7. Meat		
8. Fruits		
9. Vegetables		

10. Spaghettis		
11. Macaronis		
12. Cereals		
13.Rice		
14.Children nutrition		
15. Maternal nutrition		

a. List the types of meals which you feed frequently among above food stuffs.

_____

_____

_____

b. List the types of meal which you feed you feed during ceremony like New Year, Easter and Christmas among above food stuffs.

_____

_____

5.2. How frequent do you take your meal/ diet? Thick (X for your response)

1. Yes 2.No

Frequency of meal intake	1	2
1.Only breakfast		
2.Only lunch		
3.Only dinner		
4.Breakfast & lunch		
5.Breakfast & dinner		
6.Lunch & dinner		
7.Breakfast, lunch & dinner		

6. Coping strategies being used by households to decline shocks

6.1. Which one of the following mechanisms do you use during decline in your crop production to feed your families? (Thick "X" for your answer).

1. Yes 2. No

Coping Strategies	1	2
1. Requesting grain loan from neighbours		
2. Receiving grain aid		
3. Livestock sale		
4. Bee honey sale		
5. Petty trade (charcoal sale, condiments retail, liquor sale,etc)		
6. Vegetables sale		
7.. Purchasing grains from market		
8. Agricultural labour work		
9.Others		

Specify if there is any

other,_____

_____

7. Socio -economic interaction with the resettlers

1. Best 2. Better 3. Poor

(Thick "X" under appropriate answer)

Areas of Relation ship	Response		
	1.	2	3
1. Religion relation			
2. Marriage relation			
3. Mourning and funeral ceremony relation			

4.Relation on development activities			
5. Transaction/marketing			
6. Iddir/ Ikub relation			
7. Labour share / "Debbo"			
8. Land contract relation			
9. Credit relation			
10.Language			

7.1. Did you face any conflict with resettlers?

1. Yes 2. No

7.2. If your answer for the above question is yes, what are the major reasons for conflict?

_____

_____

_____

7.3. How do you evaluate the frequency of conflict occurrence between resettlers and host communities?

1. Always 2. Some times 3. Never

7.4. If you faced conflict, how it was resettled?

1. Through government bodies intervention
2. Through local court
3. Through local elders
4. Still not

8. Improvement in infrastructure and social service facilities after resettlement program.

8.1. How do you see the availability and functions of the following infrastructure and social services? 1. Yes 2. No. (Thick "X" for your response)

Facilities	Response	
	1.	2.
1.Health post		
2. Health institutions expanded (health posts, clinics, health center)		
3. Distribution of schools increased (primary, secondary, preparatory)		
4. Electricity established		
5. Telephone services introduced and expanded		
6. Postal services started		
7.Safe drink water supplied		
8. Veterinary service expanded		
9. Road constructed (for dry and rainy		
10. Credit facilities started		
11. Market access improved		
12. Micro finance institutions organized		
13. Religion institutions expanded		
14. Grave sites demarcated		
15. Farmers training center established and functioning		
16. Agricultural development center established and functioning		
17. Grain mail established and expanded		
17.Others		

9. The condition of Environmental Management and Rehabilitation by host community

9.1. Where do you keep your livestock?

1. On my own land
2. Keeping on common grazing land
3. Using forage crops/plants
4. Other, specify: _____

9.2. Where do you get your house construction materials?

1. Forest 2. Stone 3. Use trees planted around my own farm land
4. Other, specify: _____

9.3. What do you use for fuel?

1. Wood from forest 2. Charcoal 3. Animal dung
4. Electricity 5. Kerosene 6. Crop residual

9.4. Your farm land is:

1. Near to forest 2. Far away from forest 3. Cleared forest land

9.5. Have you been trained about environmental management by professionals?

1. Yes 2. No

9.6. Is there a program in which you involve for rehabilitating the environment?

1. Yes 2. No

9. 7. Have you ever planted indigenous trees around your residence and farm land?

1. Yes 2. No

9.8. Do you know any guideline to conserve your environment?

1. Yes 2. No

9.9. How do you rate the benefits gained from resettlement program in your area?

1. High 2. Medium 3. Low

10. Asset building and other strategies being implemented to enhance food security in the area.

1. Yes 2. No (Thick 'X' for your response).

Programs	Response	
	1	2
1. Irrigation system installed.		
2. Water harvesting program been trained and established.		
3. Better varieties of seeds provided.		
4. Fertilizers regularly supplied.		
5. Access to credit service has been improved.		
6. Family planning program is existing		
7. Awareness creation on HIV/AIDS is being carried out.		
8.Saving institution established and being used		
9. Affirmative action to females' employment in government organizations is in practice.		
10. Share of duties between you and your spouse		
11. Involvement in off-farm activities (petty trade, handicrafts, etc) started.		
12. Food- for work activities are designed and implemented.		
13. Support for women households is existing in the area.		
14. Market links created to sell and purchase the required items		

11. What are the major problems to host communities and resettlers in the area because of resettlement program?

_____

_____

_____

12. What do you suggest to solve the existing problems?

_____

_____

Annex 3: Interview Guidelines for Key Informants

1. How do you see the feasibility study undertaken for the implementation of resettlement program?
    - Site identification
    - Socio-economic back ground of host communities and resettlers
2. How well have the host communities been consulted about the program?
3. What farm and non-farm activities are being undertaken by resettlers and host communities?
4. How the resettlers and host communities are improving their livelihood through:
    - On farm activities
    - Off –farm activities
5. How do you see the socio-economic and cultural relationship between resettlers and host communities?
    - Labor share/ cooperation
    - Employment
    - Transaction
    - Religion, Language, Clothing, Marriage
    - Funeral ceremony, etc.
6. Do the socio-cultural backgrounds of the resettlers match to the host communities?
7. Is there conflict between host communities and resettlers, between resettlers themselves? How it has been resolved? What are the major reasons?
8. What minimum infrastructure and social facilities have been established and functioning now?
9. What strategies were designed to manage the resettlement program's impact on environment?
    - Resettlers and host communities to conserve the environment;
    - Regulating forest clearing and trees cut for different purposes;
    - Making other alternative sources available to reduce dependence on forest.
10. What other interventions are designed and being undertaken to sustain the attempt of resettlers to attain food security in the area?
    - Food –for- work program
    - Micro finance institutions

- Market opportunity
- Seeds and fertilizers provision and irrigation system installment
- e. Irrigation system installment & water harvesting
- Training on farm activities, off-farm activities, environment conservation, etc.
- Family planning program and awareness creation programs on HIV/ AIDS
- Employment opportunity for resettlers?
- Opportunities created for women households

11. How is the success and failure of the resettlement program on graduating people from food insecurity is being monitored and evaluated?

12. How do you evaluate the overall conditions of resettlement program in contributing to food security for inter and intra-zonal resettlers?

13. What challenges are associated with resettlement program in the area?

14. What solutions do you propose for challenges?

Annex 4: Guidelines for FGD (Representatives of resettlers)

1. How is information exchange with resettlers before their move to new area?
2. What are Push-pull factors of resettlement?
3. What criteria were used for selection of resettlers in their origin?
4. How do you see the nature of resettlement program like voluntarism, planning, resettlers selection, information exchange, etc?

5. How are the following farm activities of the resettlers in the area?
   - Crop production
   - Livestock raring
   - Bee keeping
   - Gardening
   - Fruit production
6. How are non-farm activities such as petty trade, handicraft, etc. in the area?
7. . How do you see the improvement in living standard of the resettlers?

8. How do you see the assistance provided by the government during the implementation of the program?
   - Shelter construction
   - Social and infrastructure facilities establishment
   - Household packages
   - Land distribution
   - Oxen provision

9. How is the socio-economic relationship between resettlers and host communities?
10. How do you see the existence and current function of the infrastructure and social service facilities in the area?
11. How is the environmental conservation by resettlers?

12. What other interventions are being undertaken to sustain the attempt of resettlers to attain food security?
    - Food -for-work programs
    - Better seeds and fertilizer distribution
    - Market opportunity creation
    - Credit and saving services
    - Irrigation system installment & water harvesting
    - Nutrition supply
    - Family planning program and awareness creation on HIV/ AIDS
    - Employment opportunity in formal and informal sectors
    - Opportunities designed for women
13. How is the resettlers situation in ensuring their food security?
14. What success and failure do you observe from the program?
15. What are the Key problems for resettlers in the area?
16. What do you suggest to mitigate the identified problems?

Annex 5: Guidelines for FGD (with host community representatives)

1. Have the host communities been consulted and participated in the resettlement program prior to its implementation.
2. How do you see the livelihood improvement of resettlers and host communities through the following activities?
    - Agricultural/on-farm activities such as crop production, live stock, bee keeping, gardening, etc.
    - Off-farm activities/ petty trade, handicraft activities, etc
3. How do you see the socio- economic relationship between host communities and resettlers?
    - Marriage
    - Transaction /marketing
    - Language for communication
    - Labor cooperation and share
    - Religion
    - Iddir, etc.
4. How is the socio-cultural situation between resettlers and host communities?
    - Language
    - Clothing
    - Marriage
    - Funeral ceremony
    - Feeding
    - Work culture
5. How do you see the conditions of the following infrastructure and social facilities pre- program and post -program of resettlement?
    - Health and education institutions
    - Roads
    - Irrigation systems
    - Grain mill
    - Saving and credit facilities
    - Training for on-farm and non-farm activities, etc.
6. How do you see environmental conservation by resettlers and host communities?
7. What other interventions being undertaken by the government to sustain food security in the area?
    - Food-for-work activities
    - Training on on-farm and off-farm activities
    - Irrigation system installment & water harvesting
    - Credit and saving systems
    - Market opportunity
    - Formal and informal employment opportunities
    - Family planning program and awareness creation on HIV/AIDS
    - Opportunities created for women households
8. What are the major problems to host communities and resettlers in the area because of resettlement program?
9. What do you suggest to solve the existing problems?

Annex 6: The Size of Farm Land Cultivated with Crops, Fruits and Vegetables

a. The Maximum, Minimum and Average of Farm Land Size Cultivated with Food Crop, Cash Crops and Fruits (in Hectares)

ype of espondent		Maize	Teff	Sorghum	Coffee	Banana	Mango	Papaya
Inter-zonal resettlers	Average	0.69	0.41	0.34	0.01	0.01	0.00	0.01
	Minimum	0.10	0.0	0.0	0.0	0.0	0.0	0.0
	Maximum	1.50	1.00	0.60	0.10	0.30	0.01	0.10
Intra-zonal resettlers	Average	0.84	0.14	0.72	0.06	0.06	0.0	0.0
	Minimum	0.50	0.00	0.00	0.00	0.0	0.0	0.00
	Maximum	2.00	0.75	1.50	0.25	0.30	0.25	0.01
Host community	Average	0.90	0.20	0.38	0.06	0.08	0.03	0.0
	Minimum	0.00	0.00	0.00	0.00	0.0	0.0	0.0
	Maximum	3.00	2.00	2.00	0.50	0.50	0.25	0.15

Source: Household survey, 2010

b. The Maximum, Minimum and Average of Household Heads Farm Land Size Cultivated with Enset and Vegetables (in Hectares)

Types of respondent		Enset	Green paper	potato	Onion
Inter-zonal Resettlers	Average	0.11	0.01	0.17	0.04
	Minimum	0.00	0.00	0.0	0.0
	Maximum	0.50	0.30	0.50	0.30
Intra-zonal Resettlers	Average	0.27	0.02	0.00	0.00
	Minimum	0.01	0.00	0.00	0.00
	Maximum	0.50	0.25	0.13	0.01
Host community	Average	0.27	0.00	0.00	0.00
	Minimum	0.00	0.00	0.00	0.00
	Maximum	0.55	0.07	0.06	0.12

Source: Household survey, 2010

Annex 7: Amount of Food Crops, Cash Crops, Fruits and Vegetables Production

a. Maximum, Minimum and Average Amount of Food Crops, Cash Crops and Fruits Produced (in Quintals).

Types of respondent		Maize	Teff	Sorghum	Coffee	Banana	Mango	Papaya
Inter-zonal Resettlers	Average	6.13	2.78	3.82	0.12	0.65	0.00	0.84
	Minimum	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Maximum	20.00	12.00	11.00	6.00	3.00	0.25	4.00
Intra-zonal Resettlers	Average	8.23	0.53	8.31	0.00	1.84	0.00	0.09
	Minimum	3.00	0.00	0.00	0.00	0.00	0.00	0.00
	Maximum	20.00	2.00	18.00	0.00	14.00	0.00	4.00
Host community	Average	12.49	2.34	6.47	1.90	3.00	1.53	0.68
	Minimum	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Maximum	49.00	32.00	37.00	4.00	20.00	15.00	26.00

Source: Household survey, 2010

b. Maximum, Minimum and Average Amount of Enset and Other Vegetables Produced by Household Heads (in Quintals)

Type of respondent		Enset	Green paper	Potato	Onions
Inter-zonal Resettlers	Average	0.50	0.01	3.39	1.27
	Minimum	0.00	0.00	0.00	0.00
	Maximum	3.00	0.30	40.00	15.00
Intra-zonal Resettlers	Average	2.07	0.02	0.10	0.01
	Minimum	0.00	0.00	0.00	0.00
	Maximum	9.00	0.25	4.00	1.00
Host Community	Average	6.62	0.00	0.05	0.12
	Minimum	0.00	0.00	0.00	0.00
	Maximum	32.0	0.07	3.00	3.00

Source: Household survey, 2010

Annex 8: Livestock Production Before and After Resettlement Program

a. Livestock Production Before Resettlement Program (in "TLU" Standard)

Type of Livestock	Quantity	Inter-Zonal Resettlers		Intra-Zonal Resettlers		Host Community		Total	
		Fr	%	Fr	%	Fr	%	Fr	%
Cow	0	11	16.2	17	24.3	12	15.8	40	18.7
	1-3	48	70.6	51	72.8	50	65.8	149	69.6
	4-6	6	8.8	2	2.9	12	15.8	20	9.4
	7-9	1	1.5	0	0	1	1.3	2	0.9
	10-12	2	2.9	0	0	0	0	2	0.9
	Above 12	0	0	0	0	1	1.3	1	0.5
	Total	**68**	**100**	**70**	**100**	**76**	**100**	**214**	**100**
Ox	0	14	20.5	49	70	34	44.8	97	45.3
	1-3	52	76.5	21	30	40	52.6	113	52.8
	4-6	1	1.5	0	0	1	1.3	2	0.9
	7-9	0	0	0	0	0	0	0	0
	10-12	0	0	0	0	1	1.3	1	0.5
	Above 12	1	1.5	0	0	0	0	1	0.5
	Total	**68**	**100**	**70**	**100**	**76**	**100**	**214**	**100**
Sheep	0	53	77.9	13	18.6	34	44.7	100	46.7
	1-3	15	22.1	57	81.4	42	55.3	114	53.3
	Above 3	0	0	0	0	0	0	0	0
	Total	**68**	**100**	**70**	**100**	**76**	**100**	**214**	**100**
Goat	0	42	61.8	66	94.3	71	93.4	179	83.6
	1-3	26	38.2	4	5.7	5	6.6	35	16.4
	Above 3	0	0	0	0	0	0	0	0
	Total	**68**	**100**	**70**	**100**	**76**	**100**	**214**	**100**
Poultry	0	24	35.3	33	47.1	36	47.4	93	43.5
	1-3	44	64.7	37	52.9	40	52.6	121	56.5
	Above 3	0	0	0	0	0	0	0	0
	Total	**68**	**100**	**70**	**100**	**46**	**100**	**214**	**100**
Bee hives	0	58	85.3	63	90	48	63.2	169	79
	1-3	10	14.7	7	10	28	36.8	45	21
	Above 3	0	0	0	0	0	0	0	0
	Total	**68**	**100**	**70**	**100**	**76**	**100**	**214**	**100**

Source: Household survey, 2010

TLU Conversion factors used are: *Cattle (Cow & Ox) = 0.7*
Sheep/ Goat = 0.1
Poultry/Bee hives = 0.01

b. Livestock Production After Resettlement Program (in "TLU" Standard)

Type of Livestock	Quantity	Inter-Zonal Resettlers		Intra-Zonal Resettlers		Host Community		Total	
		Fr	%	Fr	%	Fr	%	Fr	%
Cow	0	3	4.4	1	1.4	1	1.3	5	2.3
	1-3	50	73.5	50	71.5	41	53.9	141	65.9
	4-6	11	16.2	19	27.1	31	40.8	61	28.5
	7-9	0	0	0	0	1	1.3	1	0.5
	10-12	1	1.5	0	0	0	0	1	0.5
	Above 12	3	4.4	0	0	2	2.7	5	2.3
	Total	**68**	**100**	**70**	**100**	**76**	**100**	**214**	**100**
Ox	0	6	8.8	1	1.4	11	14.5	18	8.4
	1-3	59	86.7	66	94.3	60	78.9	185	86.4
	4-6	1	1.5	1	1.4	4	5.3	6	2.8
	7-9	0	0	0	0	0	0	0	0
	10-12	1	1.5	0	0	0	0	1	0.5
	Above 12	1	1.5	2	2.9	1	1.3	4	1.9
	Total	**68**	**100**	**70**	**100**	**76**	**100**	**214**	**100**
Sheep	0	67	98.5	4	5.7	14	18.4	85	39.7
	1-3	1	1.5	66	94.3	62	81.6	129	60.3
	Above 3	0	0	0	0	0	0	0	0
	Total	**68**	**100**	**70**	**100**	**76**	**100**	**214**	**100**
Goat	0	14	20.6	18	25.7	69	90.8	101	47.2
	1-3	54	79.4	52	74.3	7	9.2	113	52.8
	Above 3	0	0	0	0	0	0	0	0
	Total	**68**	**100**	**70**	**100**	**76**	**100**	**214**	**100**
Poultry	0	5	7.4	4	5.7	30	39.5	39	18.2
	1-3	63	92.6	66	94.3	46	60.6	175	81.8
	Above 3	0	0	0	0	0	0	0	0
	Total	**68**	**100**	**70**	**100**	**76**	**100**	**214**	**100**
Bee hives	0	50	73.5	15	21.4	44	57.9	109	50.9
	1-3	18	26.5	55	78.6	32	42.1	105	49.1
	Above 3	0	0	0	0	0	0	0	0
	Total	**68**	**100**	**70**	**100**	**76**	**100**	**214**	**100**

Source: Household survey, 2010

TLU Conversion factors used are: *Cattle (Cow & Ox) = 0.70*
Sheep/ Goat = 0.10
Poultry/Bee hives = 0.01

Annex 11: The Amount of Agricultural Outputs used for Consumption

a. The Average, Minimum and Maximum Amount of Crops, Fruits and Vegetables used for Consumption by Household Heads (in Kilograms)

Type of respondent		Maize	Teff	Sorghum	Enset	Banana	Mango	Papaya
Inter-zonal Resettlers	Average	549	124	55	76	53	0	61
	Maximum	1200	1100	500	300	200	25	400
Intra-zonal Resettlers	Average	281	15	557	468	41	0	6
	Maximum	1300	50	1400	1200	300	0	200
Host Community	Average	610	101	326	734	73	39	11
	Maximum	5800	2200	2500	3200	500	400	400

c. Vegetables used for Consumption (in Kilograms)

Type of respondent		Green paper	Potato	Onion
Inter-zonal Resettlers	Average	24	199	32
	Maximum	500	2000	500
Intra-zonal Resettlers	Average	20	3	0
	Maximum	200	100	0
Host Community	Average	3	8	4
	Maximum	50	300	100

Source: Household survey, 2010

Annex 12: Common Meals to Household Heads in Study Area

Type of meal	Inter-zonal resettlers				Intra-zonal resettlers				Host community				Total			
	Yes		No		Yes		No		Yes		No		Yes		No	
	Fr.	%	Fr.	%	Fr	%	Fr	%	Fr	%	Fr	%	Fr.	%	Fr.	%
Bread	68	100	o	0	70	100	0	0	76	100	0	0	214	100	0	0
Biscuit	0	0	68	100	0	0	70	100	0	0	76	100	0	0	214	100
porridge	68	100	0	0	70	100	0	0	76	100	0	0	214	100	0	0
Injera	68	100	o	0	70	100	0	0	76	100	0	0	214	100	0	0
Egg	40	58.8	28	41.2	37	52.9	33	47.1	30	39.5	46	60.5	107	50	107	50
Milk & milk products	68	100	0	0	70		0	0	76	100	0	0	214	100	0	0
Meat	51	75	17	25	62	88.6	8	11.4	65	85.5	11	14.5	178	83.2	36	16.8
Fruits	68	100	0	0	70	100	0	0	76	100	0	0	214	100	0	0
Vegetables	68	100	0	0	70	100	o	0	76	100	0	0	214	100	0	0
Spaghettis	5	7.4	63	92.6	0	0	70	100	8	10.5	68	89.5	13	6.1	201	93.9
Cereals	68	100	0	0	70	100	0	0	76	100	0	0	214	100	0	0
Rice	0	0	68	100	0	0	70	100	5	6.6	71	93.4	5	2.3	209	97.3
Macaronis	5	7.4	63	92.6	0	0	70	100	5	6.6	71	93.4	10	4.7	204	95.3
Children nutrition	34	50.0	34	50.0	70	100	0	0	33	43.4	43	56.6	137	64.0	77	36.0
Maternal nutrition	34	100	34	50.0	70	0	0	0	33	43.4	43	56.6	137	64.0	77	36.0

Source: Household survey, 2010

Annex 14: The Situations of Asset Building Strategies and Productive Safety Net Program that Support the Resettlement Program in the Study Area

Strategy/ intervention	Inter-zonal resettlers				Intra-zonal resettlers				Host community				Total			
	Yes		No		Yes		No		Yes		No		Yes		No	
	Fr	%	Fr	%	Fr	%	Fr	%	Fr	%	Fr	%	Fr	%	Fr	%
Irrigation system	0	0	68	100	0	0	70		0	0	76	100	0	0	214	100
Water harvesting	0	0	68	100	0	0	70	100	0	0	76	100	0	0	214	100
Better seeds distribution	57	83.8	11	16.2	8	11.4	62	88.6	25	32.9	51	67.1	90	42.1	124	57.9
Fertilizer distribution	60	88.2	8	11.8	10	14.3	60	85.7	31	40.8	45	59.2	101	47.2	113	52.8
Family planning	51	75.0	17	25.0	69	98.6	1	1.4	65	85.5	11	14.5	185	86.4	29	13.6
Awareness creation on HIV/ AIDS	59	86.8	9	13.2	70	100	0	0	73	96.1	3	3.9	202	94.4	12	5.6
Market access	0	0	68	100	0	0	70	100	0	0	76	100	0	0	214	100
Food for Work (Productive Safety Net Program)	0	0	68	100	0	0	70	100	0	0	76	100	0	0	214	100
Support to women households	4	5.9	64	94.1	25	35.7	45	64.3	32	42.1	44	57.9	61	28.5	153	71.5
Credit services	12	17.6	56	82.4	26	37.1	44	62.9	12	15.8	64	84.2	50	23.4	164	76.6
Saving institution	0	0	68	100	0	0	70	100	0	0	76	100	0	0	214	100
Gender mainstreaming	62	91.2	6	8.8	25	35.7	45	64.3	16	21.1	60	78.9	103	48.1	111	51.9

Source: Household survey, 2010

Declaration

I declare that this thesis is entirely my original work and that all sources of materials used for the thesis have been fully acknowledged.

Terefe Zeleke

June, 2010.

Addis Ababa University

Confirmation

This thesis has been submitted for examination with my approval as a university advisor.

Ignatius Mberengwa (PhD)

June, 2010