



Dispute or Residing Together in Harmony? Bean Cultivation and Theft in Rural Ethiopia

Tesfanesh Zekiwos Gichamo

Uppsala 2011

EX0681 Master Thesis 30 hp

Dispute or Residing Together in Harmony? Bean Cultivation and Theft in Rural Ethiopia

Tesfanesh Zekiwos Gichamo

Swedish University of Agricultural Sciences
Department of Urban and Rural Development
Rural Development and Natural Resource
Management

*Keywords: conflict, Faba beans, institutions,
livelihood, theft, villagization*

Thesis no X

EX0681 Master Thesis in Rural Development and Natural Resource Management, 30 hp, Master E, Uppsala
2011

© Tesfanesh Zekiwos Gichamo

Supervisor: Dr. Linley, Chiwona-Karlton, Department of Urban and Rural Development, SLU

Assistant Supervisor: Dr Erik Karlton, Department of Forest Soils, SLU

Assistant Supervisor: Dr Mulugeta Lemenh, Wondo Genet College of Forestry, Hawassa University, Ethiopia

Assistant Supervisor: Mr Motuma Tolera, Wondo Genet College of Forestry, Hawassa University, Ethiopia

Examiner: Örjan Bartholdson, Department of Urban and Rural Development

tesfazek@yahoo.com

<http://epsilon.slu.se>

*Dedicated
To
My Beloved Family*

Acknowledgments

Glory to the almighty God, the creator, provider and sustainer of every life!

First of all, I would like to thank the farmers in the Beseku-Ilala peasant association, Arsi Negelle district, who willingly sacrificed their precious time for interviews and focus group discussions. Special thanks go to Mr Alliyé Hussen, my field assistant, for his tireless help during my fieldwork. I would like to express my sincere gratitude and appreciation to the local supervisors, Dr Mulugeta Lemenih and Mr Motuma Tolera, for their support and advice during my fieldwork in Ethiopia.

My deepest thanks go to Dr Linley Chiwona-Karlton for her close supervision, advice, critical comments and encouragement throughout the research work. It is a great privilege to be her student. Thank you for trusting and allowing me to work with you. I would also like to thank you for the financial support for the fieldwork. I am furthermore indebted to Dr Erik Karlton for his valuable comments and help.

I would like to extend my thanks to my classmates. We had wonderful times together throughout the two years of study. Kassa and Yosef, you deserve my thanks for being with me during the hard times. My thanks also go to the Eyob family, who treated me as their family member during my stay in Uppsala. Azab, you deserve special thanks. Thank you for your support and help. Specific thanks go to Dr Fikre; thank you so much for your support while you were in Uppsala. Dr Tarekegn; you also deserve my thanks for your valuable advice.

Last but not least, I am grateful to the Salem church members in Uppsala; thank you for your encouragement.

My love and respect to my family who are always by my side; I love you all.

Abstract

Previous studies in Beseku Ilala peasant association, South Central Ethiopia, have disclosed decreasing soil fertility in the area, a consequence of non-existent crop rotation practices, where a nitrogen-fixing legume, the faba bean (*Vicia faba*) is of particular interest. Widespread theft has resulted in the abandoning of bean cultivation. In order to solve this problem, the communities agreed to formulate by-laws, utilizing an existing local institution (Iddir) for the implementation. The people belonging to Iddir help members who mourn the death of a family member or a close relative. The aims of these by-laws were to punish the thieves and to urge and support farmers to start growing beans again. Most farmers had subsequently resumed bean cultivation, but in some areas farmers had refrained from growing the bean again.

The present study examined the factors affecting the adoption of bean reintroduction in Beseku Ilala peasant association. A cross sectional survey was conducted by means of purposive and snowball sampling. The techniques utilized were individual interviews, key informant interviews and focus group discussions, using open-ended and closed questionnaires. The results revealed that the main factors influencing the adoption of bean cultivation were villagization or community re-location, fear of conflict, small land holdings, population growth, migration, and lack of women participating in decision-making. In addition, unemployment, poverty, and delinquent behaviours were also revealed to be contributing factors, as drivers of bean theft. The results suggest that youth employment and gender participation, particularly in key decision-making processes, are crucial to institute in order to accomplish reduced poverty.

Keywords: Conflict, Faba Bean, Institutions, Livelihood, Theft, Villagization

Table of contents

Acknowledgments.....	i
Abstract	ii
Table of contents.....	iii
List of Tables	v
List of Figures	v
1. INTRODUCTION	1
1.1 The Role of Faba Bean	1
1.2 Rationale and Problem Statement	3
1.3 Objectives of the Study	6
1.3.1 Overall Aim of the Study.....	6
1.3.2 Specific Objectives.....	6
1.4 Research Questions	6
1.5 Significance of the Study.....	6
1.6 Structure of the Thesis.....	6
2. LITERATURE REVIEW.....	7
2.1 Agriculture and Food Security in Ethiopia	7
2.1.1 Agriculture.....	7
2.1.2 Food Security.....	8
2.2 Crop and livestock production	10
2.3 Local Institutions in Ethiopia.....	11
2.4 Theft and Dispute in Agriculture	14
3. MATERIALS AND METHODS	17
3.1 Ethiopia	17
3.2 Study Area	18
3.2 Materials	20
3.3 Methods	21
3.3.1 Transect Walk	21
3.3.2 In-depth Interviews	21
3.3.3 Key Informant Interviews	22
3.3.4 Likert Scale Questionnaire	22
3.3.5 Focus Group Discussions	23
3.3 Data Analysis	23
3.4 Validity of findings	24
3.5 Ethical Consideration	25
4. RESULTS.....	26
4.1 Social Characteristics of Sampled Households	26
4.2 Villagers' Attitudes and Perceptions towards Bean Theft.....	27
4.3 Drivers of Bean Theft	27
4.4 Women and Bean theft	28
4.5 Factors Affecting Adoption of Bean Reintroduction	30
4.5.1 Villagization	31
4.5.2 Fear of Conflict	32
4.5.3 Land holding, Population and Migration.....	35
5. DISCUSSION	37
5.1 Tolerated Theft	37
5.2 Drivers of Bean Theft.....	38
5.3 Women, Bean Theft and Bean Adoption.....	39
5.4 Factors Affecting Adoption of Bean Reintroduction	40
5.4.1 Villagization	40
5.4.2 Conflict and Harmony	41

5.4.3 Land holding, Population and Migration.....	42
6. CONCLUSIONS.....	44
REFERENCES	45
APPENDICES	53
Appendix I: Interview Guide for Individual Interviews	53
Appendix II: Interview guide for Key informants	55
Appendix III: Interview guide (Focus group discussion).....	56
Appendix Iv: Interview guide (Focus group discussion where there is bean reintroduction)	56

List of Tables

Table 4.1 Number of interviews conducted in the study area.....	26
Table 4.2. Demographic composition of sampled household by age and sex.	26
Table 4.3 The Likert scale results showing the perceptions towards theft by the respondents	27
Table 4.4 Factors affecting Adoption of Bean reintroduction	31

List of Figures

Figure.1.2 Effect of theft on household livelihoods in Beseku Ilala peasant association	5
Figure 3.1 Map of Africa showing Ethiopia	18
Figure 3.2 Map of Ethiopia showing Arsi Negelle district (Wereda) and Beseku Ilala Peasant Association.....	19
Figure 3.3 Forested land which is converted into cropland. Beseku Ilala Peasant Association February, 2009.	20
Figure 3.4 Showing individual interview, left interpreter, centre author, right interviewee. February 2009	22
Figure 3.5 Showing Men's focus group discussions, February 2009. Beseku Ilala peasant association	23
Figure 3.6 Scheme of Data collection methods, which were used in the study	24

1. INTRODUCTION

1.1 The Role of Faba Bean

Faba bean (*Vicia faba L*) is known as fava bean, broad bean, field bean, horse bean and bell bean (Duc *et al.*, 2008). While the exact geographical origin of the Faba bean is unknown, central Asia and Mediterranean regions and South America were reported as the possible centres of diversity (Muehlauer and Tullu 1997). According to Muehlauer and Tullu (1997) and Duc *et al* (2008), the Faba bean has been categorized among the oldest domesticated food legumes. It is vital for human consumption in Ethiopia and other regions such as the Middle East, the Mediterranean region and China. The Faba bean is also used as animal feed in industrialized areas such as Europe and Southern United States (Duc *et al.*, 2008; Muehlauer and Tullu 1997). In Asia China, in Europe UK, France, Spain, Portugal and Greece, in Africa Ethiopia and Egypt and in Oceania, Australia, are the main produces of Faba bean in the world. China, however, is the world's largest producer of the Faba bean followed by Ethiopia and Egypt (Duc *et al.*, 2008).

Among many pulse-crops in Ethiopia, the Faba bean is very important. It is one of the major food legumes grown in the Ethiopian highlands and is an important staple in the diet of Ethiopian people (CIAT 2008). According to Ethiopian Ministry of Agriculture and Rural Development (MoARD) 2003 report, the Faba bean is essential for domestic consumption as well as export for foreign exchange. Between the years 1998 - 2000 on average, Ethiopia exported 88 tonnes of Faba bean each year. Compared to export, a large amount of produced Faba bean was used for domestic consumption. The report indicated that government has been trying to increase total productivity to increase the amount of export while continuing to satisfy domestic consumption. Quality and size of the Faba bean were the determinant factors for competitiveness in international market. Ethiopia were exporting Faba bean mainly to Djibouti, Yemen and Israel (MOARD 2003).

The Faba bean has high protein content (Duc *et al.*, 2008, Muehlauer and Tullu 1997). In Ethiopia, improved Faba bean contains 25-28% protein (MOARD 2003). In addition to protein, the Faba bean contains energy, fat, carbohydrate and fibre (Pulse Australia Limited 2009). Other nutrients which can be found in the Faba bean are iron, magnesium, potassium, zinc, copper, selenium and various vitamins (Holden 2009). Moreover, the Faba bean contains a chemical called Levodopa

which is used for controlling the symptoms of Parkinson' Disease (a brain disease that affects body movement) (Rabey et al 1992; Holden 2009). However, different factors such as the area where it grows, type of the soil, the amount of rain fall and other factors could affect the amount of Levodopa in the Faba bean (Holden 2009). As the Faba bean has high nutritional value, it is considered to be a suitable substitute for meat and milk (Muehlauer and Tullu 1997).

In Ethiopia people with an Orthodox religious background have a strong culture with regards to diet which is prepared by pulse crops. Especially during fasting time, food is prepared by pulses such as chick peas, split peas, Faba beans and lentils (CIAT 2008). Compared to peas, the price of Faba bean is more affordable (Duc *et al.*, 2008).

The use of the Faba bean is not only limited for human and animal consumption, it is categorized among grain legumes that are effective in nitrogen fixation (Lindemann and Glover 2003, Matthews and Marcellos 2003) to replace nitrogen fertilizer. The Faba bean is considered to be 'one of the best nitrogen fixers' (Amanuel *et al* 2000) and it has been shown by Amanuel *et al* (2000) and Matthews and Marcellos (2003) that incorporating leguminous crops in crop rotation is useful to increase soil fertility and to decrease fertilizer expenditure. Additionally, Matthews and Marcellos (2003) stated that including the Faba Bean in crop rotation will increase the amount and quality of the cereals which will be cultivated in subsequent harvest. Moreover, crop rotation that incorporates the Faba bean will decrease soil-borne disease and wheat pests (Matthews and Marcellos 2003).

Out of total world fertilizer consumption, Sub-Saharan Africa accounts only one percent (USDA 2005). In most low income countries including Ethiopia, the use of chemical fertilizer is very low due to limited foreign exchange and unavailable input for production of chemical fertilizer (USDA 2005, MoARD 2010). Like other low income countries, Ethiopian farmers are dependent on fertilizer that is imported from abroad. However, imported fertilizer is expensive and is sometimes unavailable in the market for small scale rural farmers (Howard J *et al* 1995, Fufa and Hassan 2006, Amanuel 2000).

In Ethiopia, due to less availability of foreign exchange, government and private companies are not able to import enough fertilizer to the market to meet the demand (Howard *et al* 1995). As a result, it is improbable to see poor farmers to apply optimum amount of nitrogen fertilizer which is recommended for cereal production.

Using the Faba bean in crop rotation or intercropping could be other alternative sources of nitrogen fertilizer regarding these economic and social problems (Agegnehu *et al* 2006). The study by Agegnehu *et al* (2006) shows that the intercropping of cereals and Faba bean gives high yield compared to sole cropping.

The primary focus of this paper, however, is the adoption of Faba bean cultivation and its challenges in Beseku Ilala peasant association, South Central Ethiopia.

1.2 Rationale and Problem Statement

Ongoing studies¹ in the study area focusing on soil fertility management have shown that soil fertility was decreasing. This was due to the lack of nitrogen fixing legumes in the crop rotation practices in the area (Lemenih 2004; Karlun *et al* 2008).

Earlier studies indicated that, in the past farmers were practicing crop rotations such as wheat, maize, sorghum including legumes especially the Faba bean (*Vicia faba*²) (Chiwona-Karlun *et al* 2009; Lemenih 2004). However, over time the cultivation of Faba bean had been abandoned. This has had a negative impact not only on soil fertility, but also on household livelihoods and food security, as shown in Fig.1.2. The studies also cited that the possible reason for the refusal of the farmers in this area to grow bean was due to the widespread practice of Faba bean theft (before it is ready for harvest) and the potential conflict that arose from this (Karlun *et al* 2008).

In order to curb bean theft, the people who were living in the area formulated collective (agreed upon by all) by-laws and identified the *Iddir* (a local form of

¹Research project, “Making soil quality last – participatory soil fertility management in the highlands of Ethiopia” funded by SIDA-SAREC.

²Scientific name of Faba bean

institution well-established in the area) as a means of enforcing the by-laws. People chose to work with *Iddir* because it is inclusive; nearly all of the local people are members of at least in one *Iddir*. No one wants to be excluded from this local institution as it plays substantial role in their day-to-day lives.

To support the community's collective initiative the project worked as a facilitator, initially, by providing bean seed free of charge as a trial. In the second round, the project played its role by subsidizing the transportation cost and allowing farmers to purchase improved seeds.

However, there were indications that although most of the farmers were once again growing the bean, one of the areas had refused to reintroduce it (Karlton *et al* 2008). The aim of this study, then, was to evaluate bean reintroduction activities and to assess the factors that affected reintroduction. In addition to this, the study examined the cause of changing crop patterns, which was the absence of leguminous, nitrogen fixing plants.

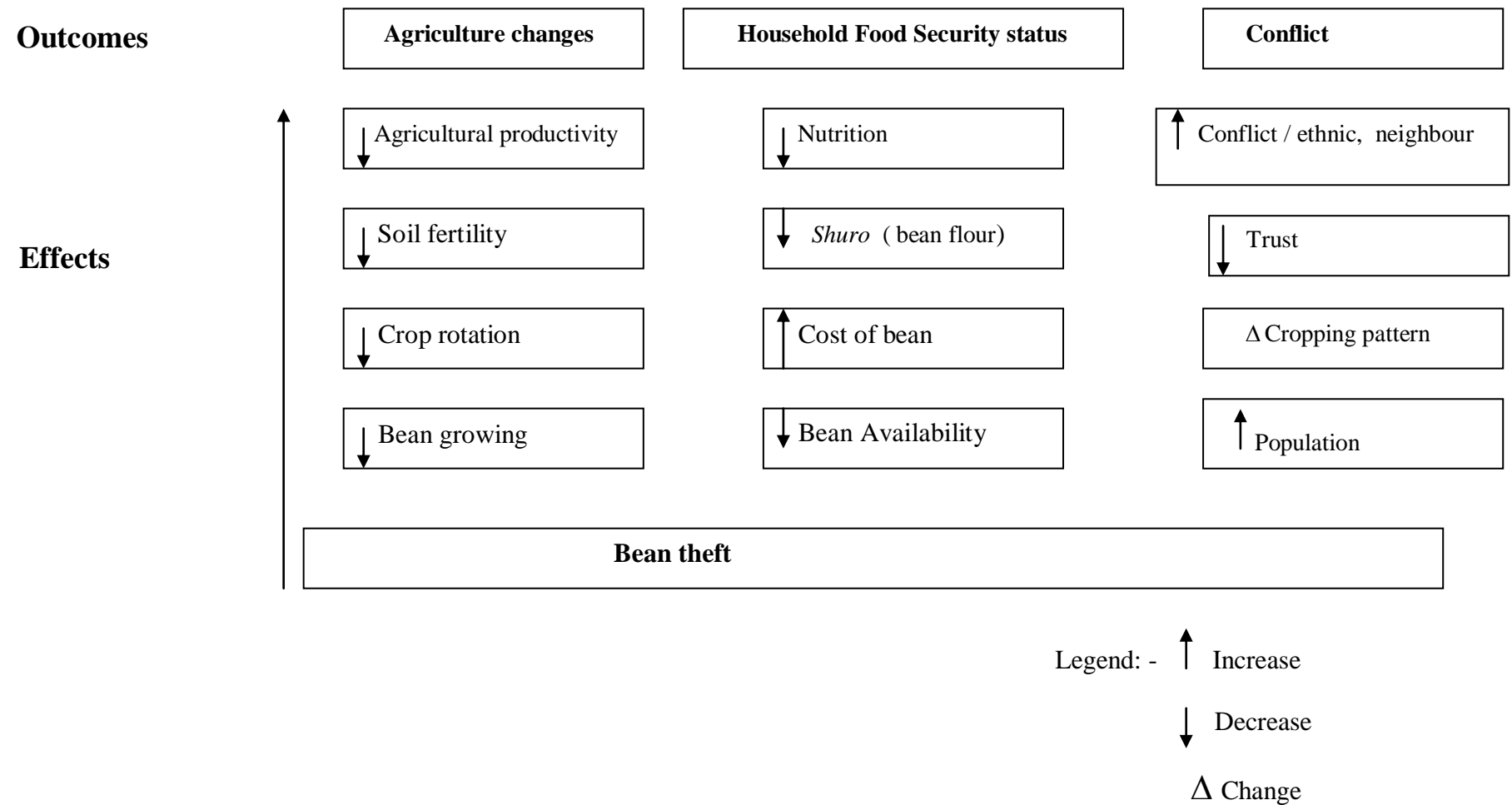


Figure.1.2 Effect of theft on household livelihoods in Beseku Ilala peasant association

1.3 Objectives of the Study

1.3.1 Overall Aim of the Study

The overall aim of this study was to examine the factors that affected the reintroduction of bean growing in enhancing integrated soil fertility management and household well-being.

1.3.2 Specific Objectives

1. To clarify people's perceptions and attitudes towards bean theft
2. To compare inter-village differences in adopting and enforcing the collective by-laws, and
3. To determine the reasons for the lack of adoption of bean reintroduction

1.4 Research Questions

1. What are people's perceptions and attitudes toward bean theft?
2. What are the factors that affect adoption of Faba bean reintroduction in the study area?

1.5 Significance of the Study

This study identified factors that affected the reintroduction of bean in the South Central part of Ethiopia. The study serves as a reference for students and researchers who may wish to conduct research related to local institutions, livelihoods and crop theft. The study will also contribute to the current efforts in scaling-up the reintroduction of bean cultivation to other areas surrounding the Arsi Negelle district. The findings may also be important to local level administrators working with socio-economic development planning and rural development issues.

1.6 Structure of the Thesis

The thesis has six chapters. Chapter one presents an introduction, statement of the problem, objectives and significance of the study. Chapter two covers the empirical literature on agriculture, food security, institutions and theft. In the third chapter, background information about Ethiopia, location and socio-economic activities of the study area are described. In addition to this, materials and methods that were used to collect data are presented. Chapter four is devoted to the results of the study. Finally in chapters five and six discussions and conclusions are presented, respectively.

2. LITERATURE REVIEW

2.1 Agriculture and Food Security in Ethiopia

2.1.1 Agriculture

Agriculture is the major source of livelihood in Ethiopia i.e. employment, revenue and export earnings. More than 80% of the population depends on agriculture for their livelihood (DFID 2004, MoARD 2010). Agriculture accounts for 90 percent of export earnings and 43 percent of GDP (CIA 2008 and MoARD 2010). However, even though the Ethiopian economy is heavily dependent on agriculture, the country is still food insecure. Food and Agriculture Organisation (FAO) statistical year book 2009 report indicates that food import accounted for 87.9% of the total agricultural import in 2007 (Food and Agriculture Organisation 2009).

Over-dependence on rain-fed agriculture, political instability and many violent conflicts that were prevalent in the country have been the major factors that aggravated the chronic famine and drought in the past decades (Kiros 2005). Moreover, being land locked with bad neighbours (Collier 2007, p.5) which were at war and politically unstable (e.g. Somalia and Eritrea) puts the country in the so called poverty trap where the country's economy were caught in a vicious cycle.

According to the World Development Report (2008) classification, Ethiopia is agricultural based country where it's economic activities predominantly dependent on agriculture. Smallholder farming activities have been the sole means of livelihood for most Ethiopians for decades (Devereux and Guenther 2007). In order to promote food security and to increase agricultural productivity, different policies have been framed in different regimes. Land reforms including resettlement and Villagization were framed in Derge regime, the former Ethiopian government from 1974 to 1991 (the Mengistu Haile Mariam regime) (Zewdu 2002; Ofcansky, T and Berry, L., 1991). Land settlement was moving rural inhabitants from drought prone areas to fertile ones and distributing land to landless peasants. Villagization was the clustering of villages and the moving of farmers to other areas (Ofcansky, T and Berry, L., 1991).

Based on the Poverty Reduction Strategy Paper (PRSP)³, the current government has prepared Sustainable Development and Poverty Reduction Program to achieve Millennium development goals (Woldehanna 2006). The main aim of the Sustainable Development and Poverty Reduction Program in Ethiopia is to ensure food security and increase economic growth. It mainly has focused on agriculture and rural development, an increase performance of education, health, infrastructures, good governance, decentralization and the empowerment process. This program puts agriculture at the centre.

The government has focused on the agricultural sector in order to reduce the poverty in rural areas by framing Agriculture Development Led Industrialisation policy (ADLI). The Sustainable Development and Poverty Reduction program has been carried out within three years from 2002/03 to 2004/05. The Plan for Accelerated and Sustained Development to End poverty (PASDEP) was another strategic framework for the five-year period 2005/06 to 2009/10. It was the second phase of poverty reduction strategy paper.

However, the empirical results show that the growth rate of agricultural sectors is decreasing within the course of time (MoARD 2009; Kiros 2005). According to Kiros (2005), increasing population, natural calamities, crop failures, technological retardation and negative agro-ecological process are among the different factors that contribute to low and declining agricultural productivity in Ethiopia. MoARD (2009) indicated that food security deteriorated in most part of Ethiopia due to failure of seasonal rains, shortage of resources and high price of food items in the world market.

2.1.2 Food Security

Since 1974 world food conference, the issue of food security has got world attention (Maxwell 1996). Yet the question of food security has no clear answer in most low-income countries. The World Development Report (2008) states that even if world had a sufficient food supply that could feed the entire world population, still 850 million people are in need of food (World Development Report 2008, p. 94). Food security is defined as a condition “when all people, at all

³ According to World Bank “Poverty Reduction Strategy Paper (PRSP) describes a country’s macroeconomic, structural and social policies and programs to promote growth and reduce poverty, as well as associated external financing needs”.

times, have physical, social and economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life” (FAO 2003, p.29). On the other hand, food insecurity refers to ‘low food intake, variable access to food, and vulnerability - a livelihood strategy that generates adequate food in good times but is not resilient against shocks’ (Devereux 2000). In addition to this, the United Nations Food and Agriculture Organization (FAO) has given the definition of food insecurity as “when people do not have adequate physical, social or economic access to food” (FAO 2003, p.29).

However, scholars like Amartya Sen have advanced the definition of food security and included issues of access and entitlement. Entitlement includes endowment and exchange entitlement mapping (Sen 1982). Sen finds them to be equally important in food security. Endowment refers to ownership or command over resources to produce food. On the other hand, exchange entitlement mapping refers to the possibility of generating income through different sources such as employment, crop sales and remittances that can be used to exchange food (Sen 1982; Ellis 2000).

Based on a world development report, food security includes quantity and quality of food (World Development Report 2008). Food quality refers to the nutrient density of the food. Besides availability, accessibility, quality and food diversity is also a measure of food security. Unless and otherwise, it leads to ‘hidden hunger’ which is lack of energy and micronutrients (Ibid 1986).

Like other Sub-Saharan African countries, the problem of food security has been a challenging issue in Ethiopia and for years Ethiopia has been known for food shortage and hunger in the public image. In his book titled “Enough with Famines in Ethiopia: a Clarion Call” Kiros mentioned that the beginning of Ethiopian food insecurity and famine goes back many years (Kiros 2005). The famines in Ethiopia were not only related to shortage of food but lack of access to the market for both producers and consumers (MoARD 2010). While there was surplus of food in the southern part of Ethiopia, due to transaction cost and transport constraints the food could not reach the people who were starving during famine of late 1970’s. Moreover, failure of entitlement was a cause of the great famine that prevailed in Ethiopia in and around 1984 (Sen 1982; Kiros 2005).

According to Devereux 2000, due to drought, war, seasonality, poverty, fragile natural resources base, weak institutions and government policies, transitory, cyclical and chronic food insecurities have prevailed for several years. Devereux (2000) lists some problems that are leading to food insecurity in Ethiopia; these are population growth, small landholdings, natural resource competition, low soil fertility due to intensive cultivation and limited application of yield enhancing inputs and small food production (Devereux 2000).

2.2 Crop and livestock production

Ethiopian farmers grow different types of crops such as cereals, pulses, oilseeds, stimulants, fibers, fruits, vegetables, roots and tuber and sugarcane (USDA 2003). Among cereals *teff* (*Eragrostis tef*), wheat, maize, barley, sorghum and millet are the most important in the diet of most Ethiopians. Indigenous to Ethiopia, *teff* occupies the largest cultivated land area of all the aforementioned crops and is the main staple food for many Ethiopians in the highlands of Ethiopia. *Teff* is used to make *Enjera* (a flat fermented pancake). Corn, sorghum and millet are also the staple food for large number of population especially for the pastoralists. Being rich in protein content pulses such as Faba bean, chick peas and lentils are considered as milk and meat substitutes in most parts of Ethiopia (CIAT 2008). They are used to make ‘*wat*’ (Ethiopian sauce) to eat with *Enjera* or bread. They are also export commodity for the country.

Table 2.1 *Cereals and pulses production (tonnes) (2005-2009)*

Item	2005	2006	2007	2008	2009
Barley	1398400	1409690	1270680	1352150	1750440 *
Broad beans	516180	599128	576156	688667	610845 *
Maize	3911870	4029630	3336800	3776440	3897160 *
Millet	397390	500171	397002	484409	560030
Sorghum	2200240	2313040	2173600	2316040	2971270 *
Wheat	2306860	2779060	2219100	2463060	3075640 *
Cereals (Total)	13364801 A	13390331 A	11845894 A	13012251 A	15501710 A
Oil crops (Total)	175584 A	189494 A	188032 A	234141 A	257208 A
Pulses(Total)	1319928 A	1373951 A	1572816 A	1774338 A	1840026 A

* = Unofficial figure A = May include official, semi-official or estimated data
Source: - FAOSTAT

In addition to crop production, rural people are engaged in livestock rearing as a means of livelihood diversification (FAO 2009; Tschopp *et al* 2010). Lowland pastoralist society is dependent on livestock production as the main source of their livelihood, means of food and income generation. In fact, Ethiopia has the largest population of livestock in Africa (CSA 2008; Halderman 2004). It accounts 15 percent of the total GDP (Ofcansky, T and Berry, L., 1991). A mixed farming, crop and livestock production is typical farming activity in the highlands of Ethiopia. As there is no mechanized farming, oxen is used as draught power for crop production (Tschopp *et al* 2010). Moreover, as in other developing countries, livestock are considered valuable assets in Ethiopia which serve as a sign of wealth and risk mitigation (FAO 2009). However, due to shrinking grazing land, diseases and limited movement in search of water and food, the numbers of livestock holding has been decreasing (Tolera and Abebe 2007).

2.3 Local Institutions in Ethiopia

In most low-income countries, formal institutional frameworks are weak in providing social welfare. As a result, most people are insecure in terms of social, economic and political aspects. Wood and Gough (2006) use the term “security regime” to categorize countries in to three groups based on socio-cultural conditions, institutional performance, welfare outcomes and path dependence. These are welfare state regimes, informal security regimes and insecurity regimes. Most developing countries like Ethiopia fall into informal security regimes where people depend on informal institutions for their security.

In Ethiopia, local institutions such as family and kinship structures, customs, traditions and social norms are very important (Adal 1999; Mammo 1999; Pankhurst and Hailemariam 2000) and are like life insurance for future. On a more organized level, some well-known informal institutions are *Iddir*, *Iqqub*, *Debo* and *Mahaber* (Adal 1999; Pankhurst and Hailemariam 2000). They have served the community for a long period of time and are passed down from one generation to another generation (Mammo 1999, p.183). These institutions are respected by local society, have considerable power and they are wide spread household livelihood strategies in Ethiopia. As local institutions are important for everyday life, people want to be a member and they feel secure from future problems. These institutions have their own rules and regulations that are accepted by the society. Denial of these rules and regulations that are set by these

institutions leads to punishment in different ways. This suggests that local institutions wield significant power.

An *Iddir* is a burial association organized by a group of people (Adal 1999; Pankhurst and Haile Mariam 2000). Members of the group elect a chairperson and cashier and usually they have meetings every month. The cashier collects money and puts it in a bank or holds it himself. This is an informal insurance. The main purpose of *Iddir* is to help people who have lost a family member by death. Money will be given to the family based on rules and regulations, which govern this institution. In addition to this, 'Gaby' (traditional cloth for covering a dead body) and coffin will be bought by the *Iddir* money. Each person who is member of the *Iddir* shares the sorrow by visiting the family. There are different types of *Iddirs* such as community or village *Iddir*, work place *Iddir*, friends *Iddir* and family *Iddir* (Mammo 1999, p. 187).

Iqqub is a kind of informal saving of money among households living in the same village, business people, and school friends (Mammo 1999, p. 186; Adal 1999). Regular contribution or collection of money is done based on each household's income. Every week or every month, money is collected from each member, and in each collection time, the collected money is given to one member using random selection methods such as lottery system. Rural poor people who have no access to formal saving and credit are the beneficiaries of the *Iqqub* (Adal 1999). Households commonly use this money to buy productive assets such as oxen for draught power or use it as a capital to start a small business.

Debo is local institution that functions as work group organization (Dixon and Wood 2007; Adal 1999). During the time of harvest, forest clearing and other tasks, people work together without money. However, the person who solicits help is responsible to prepare food and drink for those who are working. *Debo* is good for minimizing work load of one family by getting help from the neighbors. In addition to this, women use *Debo* for *Ensete* (false banana) processing in rural Ethiopia. This is a good way to save money and time.

Mahaber is another local institution in Ethiopia (Mammo 1999; Adal 1999) which is formed by a group of people, especially in the Orthodox Church. It is a kind of social network to prepare *Mahaber* feast and has spiritual value for Orthodox Church acolytes. Members take turn hosting the feast on a yearly basis. The feast takes place for two to three days and they share what they have with their neighbors and friends. The network usually consists of around ten families.

Even if these local institutions are given less attention by institutions which are created by the state (Pankhurst 2001), they have direct and indirect effect on socio-economic activities of the society. Wolde-Giorgis (1999) pointed out that, *Iddirs* are involved in natural resource management such as protecting forests, grasslands and water resources (Wolde-Giorgis 1999, p. 302). Wolde-Giorgis argued that it is good to encourage and involve grass root level knowledge in order to enhance food security and natural resources management. In addition to this, Pankhurst (2001) stated the importance of local institutions in natural resource management and conflict resolution as well as respecting local knowledge and tradition is essential for sustainable natural resource management. Moreover, Adal (1999) indicated that local institutions are playing a significant role for in Ethiopian rural development related to natural resource management, information sharing, resource mobilization and conflict management.

While local institutions are playing a significant role in Ethiopian rural development, the study by Hundie (2010) revealed that they alone could not be effective in conflict management. The study emphasized the importance of government intervention to work together with these institutions and provide a “locally motivated institutional framework” (Hundie 2010). Additionally, the study by Yami *et al* (2011) focusing on communal grazing land, showed that local institutions could not contribute for conflict resolution in some parts of the study area. This was due to lack of consensus among stakeholders such as users and development agents. Yami *et al* (2011) suggested that policy and development intervention which considers well performing local institution could solve the problem of communal grazing land and improve livelihood.

2.4 Theft and Dispute in Agriculture

In rural area, crops theft, cattle raiding and thievery of other agricultural products were mainly related to poverty, used as a means of expressing opposition to unemployment, low wage and it was considered to be a habit for some people (Fafchamps and Minten 2003; Shakesheff 2002; Schechter 2007). In addition to these, it was used as coping strategy for temporary poverty. Even if crop theft is an unacceptable behaviour in a society, it is still common to see in different parts of the world. Theft is resulting in a huge loss for farmers who invest their money and time (Schechter 2007).

The studies by Fafchamps and Minten (2003) and Schechter (2007) have shown that poverty itself has its own contribution for theft. Rural poor were using crop theft as a risk coping strategy in the time of temporary poverty (Fafchamps and Minten 2003). Fafchamps and Minten (2003) argued that the rural poor used crop theft to consumption smoothing in a bad time. According to Schechter (2007), poverty was one of the reasons for the thief to commit the crime in rural Paraguay. More importantly, the rural poor who were living in isolated areas were the ones who suffered more from crop theft and other crimes (Fafchamps and Minten, 2003). Crop theft mainly took place in the areas that were most isolated from the city. This shows that mostly the poorest people were vulnerable to crop theft. This happened where there was weak security system (Fafchamps and Minten, 2003).

Based on Aaronbrooks (1986) and Schechter (2007) studies, farmers were reluctant to arrest thieves and take legal action because they afraid that the thieves could come and take revenge in return. So the farmers preferred not to take any action. At the same time, they stated that the laws were very weak and were not good enough to protect them. Also, they thought that the police might be busy with their work in town. Similarly, the study by Schechter (2007) indicated that only few victims of theft reported to the police for legal action. They did not punish physically even if the farmers caught the thief while thieves were stealing their property.

In their study Hai *et al.*, 2003 showed that theft occurred predominantly by children on their way to school or other place. This was mainly for sale, but also for own consumption. Sometimes children got instruction from their older family members, because their older family members thought that the punishment for them would be worse than for the children (Hai *et al.*, 2003). Schechter (2007) stated that “more of a crop is stolen when it is planted on a plot along a footpath” and that the farms which were far away from the farmers’ home were more vulnerable to theft than the farms which were near to the home.

Shakesheff (2002) showed that when employment opportunity was low, rural poor were forced to crop and wood theft in rural Herefordshire. In this area, rural poor engaged in crop theft to meet the basic necessities of their family. Moreover, Shakesheff (2002) argued that rural people used crop and wood theft as a means of protest for low wage or unemployment. As a result, theft is regarded as a weapon of the poor (Scott 1985; Shakesheff 2002). Unemployment, low wage rate, and high food price were the determining factors for the extent of the theft and other crime (Shakesheff 2002). Both men and women especially widows who did not have husband and supporter participated in crop theft. Most crop theft was for immediate consumption rather than for sale. As Shakesheff (2002) stated that the main motivation for crop theft was poverty in rural Herefordshire.

The study conducted by Perkins and Thompson (1998) showed that during European settlement in the Antipodes, cattle raiding was a means of getting income by selling the stolen beasts. In addition to this, people used stolen cattle for consumption by slaughtering. More importantly cattle theft was used as a means of possessing more land. According to Fleisher (2002) study, the motivation for cattle raiding in Tanzania was to get money out of stolen cattle. Fleisher (2002) pointed out that ‘the cause and the effect’ of cattle raiding was clan warfare.

Where there is lack of legal enforcement, rural farmers use different strategies which are informal control in order to limit theft. In rural Paraguay, as the study by Schechter (2007) indicated, farmers give gifts and promise to continue in the future to give gifts to the ‘person that they believe to be a thief’ to limit theft. Schechter (2007) argued that a person who is trustworthy receives less gifts than the person who is not trustworthy. Another strategy was monitoring the farm in the night. Even if there were various challenges, Karlun *et al* (2008) pointed out that in rural

Ethiopia local institutions were playing a great role in the controlling of crop theft. In Malawi, women preferred to grow bitter cassava than Sweet cassava due to theft. Based on Chiwona-Karlton *et al* (2000) study 90% percent of interviewed women stated that cultivating bitter cassava was a strategy to minimize theft. The last thing that the farmers do is abandoning both crop cultivation and rearing animals due to fear of theft (Karlton *et al* 2008; Schechter 2007). This in turn highly affects investment decisions of the farmers and household wellbeing (Schechter 2007).

3. MATERIALS AND METHODS

3.1 Ethiopia

Known for its rich natural resources and multi ethnic makeup, Ethiopia is located in the Horn of Africa. As shown in Fig. 3.1, Ethiopia is bordered on the East and Southeast by Somalia, the East by Djibouti, the South by Kenya, the West by the Sudan and the North and Northeast by Eritrea (Press and Audiovisual Ministry of Information 2004). Due to the many lakes and rivers that could be potentially used for economic development, Ethiopia is called the water tower in the Horn of Africa (McCornick et al 2003). It has rich but underutilized natural and human resources. In spite of all its natural resource endowments, still Ethiopia finds itself at the lowest rung of economic development (MoARD 2010).

The recent Ethiopian Central Statistic Authority report shows that the number of population increased from 53.4 million in 1994 when the last census was conducted to 73.9 million in 2007 at an average annual growth rate 2.6 (Central Statistic Authority (CSA) 2008). Out of the total Ethiopian population, 84 % live in rural areas; the remaining 16 % are living in urban areas. About 44% of the total population (45% in rural areas and 37% in urban areas) are found to be below poverty line (DFID 2004) 1075 Birr/adult in 1995/96 prices (MoARD 2010). People who are living in rural areas are ‘increasingly vulnerable to poverty and food insecurity’ (Teklu 2004 and MoARD 2010).

According to the Food and Agriculture Organisation statistical year book 2009, the GDP per capita of Ethiopia is US\$ 175 (\$constant 2000 prices) (Food and Agriculture Organisation 2009). As a result Ethiopia is categorized among the poorest countries in the world. Moreover, Ethiopia in order to finance its economic activities heavily depends on foreign aid and borrowing in addition to its export earnings (Alemu 2009). Based on UNDP (2008) report, Ethiopia’s Human Development Index (HDI) is 0.406 putting the country at 171 out of 182 countries. Like other low income countries, Ethiopia is also in the race to achieve millennium development goals, which were set by the United Nations in 2000 (UN 2007).

Under the current government, Ethiopia is divided into nine ethnically based administrative regional states: Afar, Amhara, Benishangul-Gumuz, Gambela, Harar, Oromiya, Somali, Southern Nations Nationalities and People's State, Tigray and two administrative cities i.e Addis Abeba (capital city) and Dire Dawa (chartered city). The regions are divided into Zones and each zone was subdivided into *woredas* (district councils) which comprise *Kebele* (local councils) in urban areas and peasant associations in rural areas (Central Statistic Authority (CSA) 2008).



Figure 3.1 Map of Africa showing Ethiopia

(Source: <http://www.childfund.org/ethiopia/>)

3.2 Study Area

The study was conducted in Beseku Ilala peasant association in South Central Ethiopia. It is located between 7° 20' and 7 ° 25' N and 38°45' and 38° 55' E and 240km south of the capital city, Addis Abeba. Under the current governmental administrative system, Beseku Ilala peasant association is located in the Arsi Negelle district, East Shewa Zone of the Oromia Regional State (Fig 3.2).

Arsi Negelle district is bordered by Arsi Zone to the East, Shashamene district to the South, Seraro district to the Southwest, Southern Nations, Nationalities' and peoples' Regional state to the West and Adami Tullu district to the North. There are 35 peasant association and 3 urban kebeles in Arsi Negelle district. According to Central Statistics Authority 2008 population and housing census survey the

number of population in Arsi Negelle district (Wereda) is 264,314. Out of the total population of the district 80% and 20% were living in rural and urban area respectively (CSA 2008).

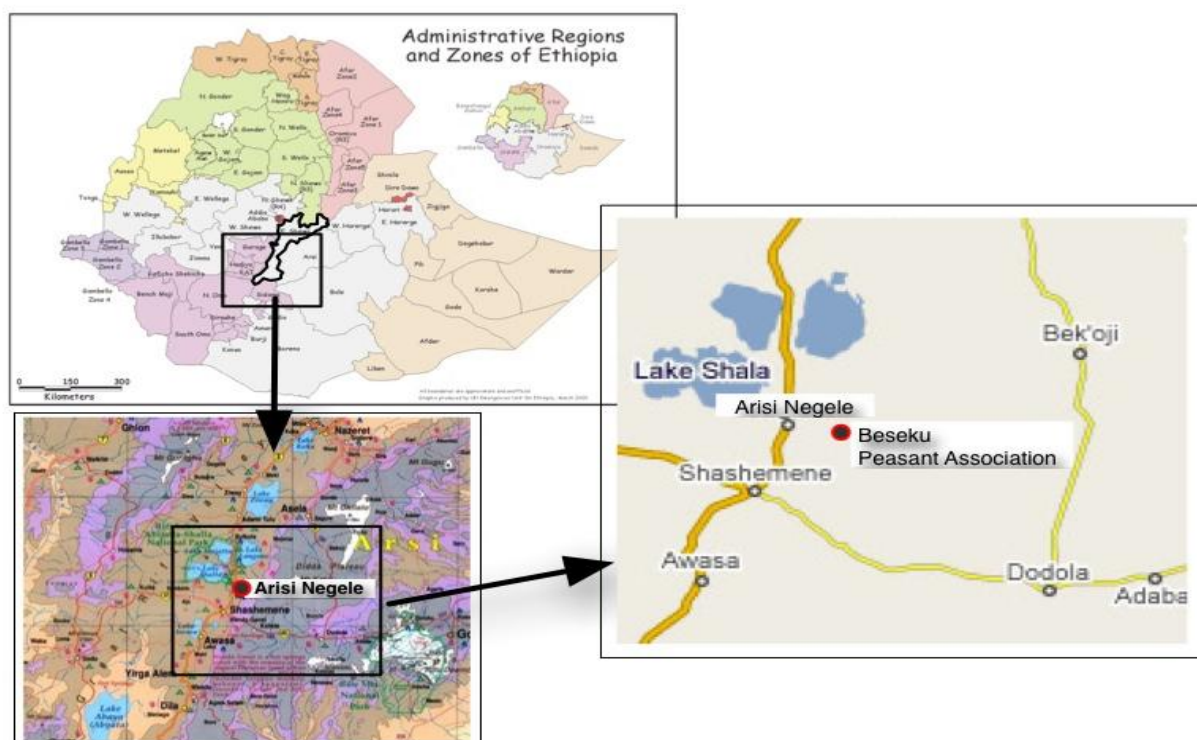


Figure 3.2 Map of Ethiopia showing Arsi Negelle district (Wereda) and Beseku Ilala Peasant Association Source:- Google

Based on the local administrative system Beseku Ilala peasant association is divided in 61 *Gotes*⁴; and in each *Gote* there are 30- 34 households (Beseku Peasant Association 2009). The population in Beseku Ilala peasant association in 2007 was 12,078 with a household having 6 members on average (CSA 2008). Agriculture is the main livelihood for the people who are living in this area. Crop production and livestock rearing are the major farming activities in Beseku. The major crops that grow in this area are maize, wheat, sorghum, potatoes and barely. Cattle, horse, donkey, sheep and goat are important livestock which are used as a draught power and income generation (Chiwona-Karlton *et al*, 2009; Tolera *et al* 2008).

⁴ *Gote* is a local name for a collection of 30-34 households

About fifty years ago the larger part of Beseku was covered by forests and open grazing land. Due to the population growth, most of the areas, which were covered by forests, have been converted to cropland. Cropland agriculture has now become the dominant livelihood for the farmers (Karlton et al 2008; Chiwona-Karlton *et al*, 2009).



Figure 3.3 Forested land which is converted into cropland. Beseku Ilala Peasant Association February, 2009.

3.2 Materials

A cross sectional survey was conducted for a period of two months from January – February 2009. Three *Gotes* were selected for the study. Two of the *Gotes* Shibeshi Gasha 1 and Shibeshi Gasha 2 had not reintroduced bean growing. Farmers who are living in the third *Gote* called Boye had started growing beans. The *Gotes* were selected on the basis of earlier findings as the study was part of an ongoing project in the area. According to the peasant association household lists, there were 34 registered households in Shibeshi Gasha 1 and Shibeshi Gash 2 respectively and 30 households in Boye *Gote*.

The study respondents were selected based on purposive sampling. Key informants with special knowledge about bean theft were identified. Subsequent respondents were identified using the snowball technique which utilizes subjects who may be able to recommend other potential candidates for the study (Bernard 2000, p.179). In addition to this, women, men, youth, and local institution leaders and Peasant association administrators were also interviewed as they were regarded to possess relevant knowledge for answering the research question.

3.3 Methods

Qualitative and semi-quantitative data collection approaches were utilized in the study. Qualitative data collection methods were used to get deep and holistic understanding of complex and sensitive realities from the respondents' perspective (Mayoux 2006, p.118; Kvale 1996, p. 27). Individual interviews, key informant interviews and focus group discussions were the main methods of data collection in this study. All individual and key informant interviews were face to face interviews, administered by the researcher together with the field assistant. This was a useful method to address a sensitive issue in the locality (Bernard 2000, p.190) such as bean theft. The questionnaire was pre-tested prior to administering by translating all questions to the local language and by discussing the questions with the field assistant and some key informants. Interpretation of the questions is one of vital importance for the response of the interviewees (Nichols 1991, p.27).

3.3.1 Transect Walk

Prior to conducting interviews and focus group discussions, transect walks with local institutional leaders, local supervisors and the field assistant were carried out in all three *Gotes*. It took us two hours in each *Gote*. Transect walks were conducted to observe special peculiarities of the study area, people, crop farms and other natural resources. Moreover, it helped me to find out the perception of the local institution leaders about their community, natural resources, land use, cropping system and vegetation.

3.3.2 In-depth Interviews

The in-depth interviews were comprised of closed and open-ended interview questions that were based on earlier findings in the area related to bean theft. Open ended questions were included to give opportunity to the interviewees to bring up

their own ideas and thoughts that may have not been included in interview (Willis 2006; Nichols 1991, p.13). Each interview lasted approximately 30-50 minutes.



Figure 3.4 Showing individual interview, left interpreter, centre author, right interviewee.
February 2009

3.3.3 Key Informant Interviews

Key-informant interviews were administered with members of the community that had profound knowledge about problems of bean theft in the area. Key informants were men, women, youth, elderly, as well as notable members of the community. In-depth interviews were carried out to describe qualitative character and to get answers for the questions ‘how and why’ (Rubin and Rubin 2005, p.3). Key informant interviews lasted approximately one hour.

3.3.4 Likert Scale Questionnaire

To get an understanding and measure respondents’ attitudes towards bean theft a likert Scale questionnaire was administered. Both positive and negative statements (Cauvery 2003) related to bean theft were produced with a range of odd number of choices ranging from strongly agree, agree, neutral, disagree and strongly disagree. These were adapted to the local language and cultural understanding. The variables and statements were developed by induction based on previous study findings (Bernard 2000, p.295).

3.3.5 Focus Group Discussions

Focus group discussions were conducted in all the three study areas. In order to give freedom to talk openly (Dawson *et al* 1993, p.24; Nichols 1981, p.14) separate women and men focus group discussions were held. Participants were local institution leaders and community members such as elderly, men, women and young people. A focus group discussion provides the opportunity to assess group consensus, different opinions and views of respondents (Lloyd-Evans 2006; Pratt and Loizos 1992, p.55). On average, both women and men focus discussions lasted 1- 2 hours. In all focus group discussions, the author moderated the discussion by using a checklist. General questions were used to introduce the topic and to encourage wide discussions (Dawson *et al* 1993).



Figure 3.5 Showing Men's focus group discussions, February 2009. Beseku Ilala peasant association

3.3 Data Analysis

Content analysis (Taylor-Powell and Renner 2003) and descriptive statistical methods were used to analyze qualitative and quantitative data respectively. The sources of the data were interviews and focus group discussions. Open-ended questions from interviews and focus group discussions produced words, statements, phrases and paragraphs of text. In the course of data analysis recorded interviews and focus group discussions were subjected to transcription. After transcription, themes and issues that arose in the time of discussions and interviews were

identified, assembled, organized and coded in a meaningful way and careful examination of data was carried out (Lloyd-Evans, 2006). This enabled the researcher to give interpretation to the data (Cauvery et al 2003, p.196; Alvesson & Sköldbberg 2000).

3.4 Validity of findings

Using different data collection methods such as individual, key informant interviews and focus group discussions enabled validation of the collected information. According to Johansson, a triangulation of methods is useful to validate the findings especially of the qualitative nature (Johansson 2007). Validation is defined as cross-checking information which is collected from different sources and ensures reliability and agreement between sources of information (Pratt and Loizos 1992, p.79). Mayoux states that it is possible to get ‘reliable information’ through in-depth key informant interviews (Mayoux, 2006). “The key principles of validation are never to take anything at face value, never to rely on one person’s opinion or perception, and cross-check the different perceptions of different actors or observers about the same fact” (Pratt and Loizos 1992, p.79).

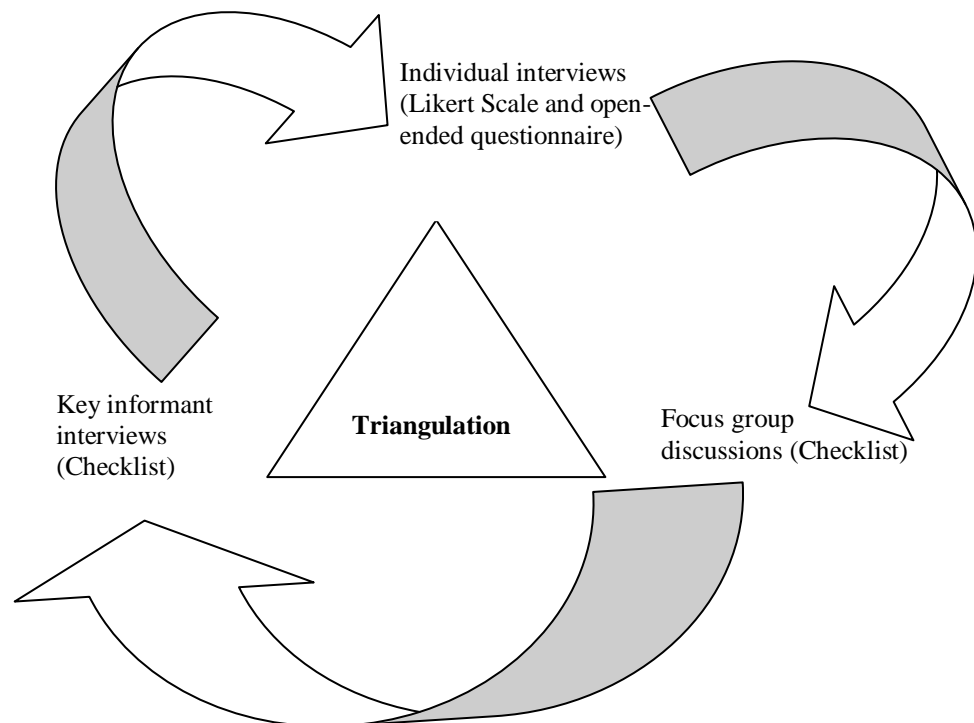


Figure 3.6 Scheme of Data collection methods, which were used in the study

3.5 Ethical Consideration

Since this study was part of an ongoing study in the area it was not difficult to get permission from the local administrators to undertake the study. The aim of the study was presented to the potential study participants before interviews and focus group discussions. In addition to this, respondents were informed that their views and opinions were valuable for the research. Mayoux (2006) indicated that researchers are dependent on respondents' willingness and cooperativeness to give information. So researchers should be aware of ethical issue (Mayoux 2006; p.123). Before interviewing, respondents were assured anonymity and confidentiality. In all individual interviews, key informant interviews and focus group discussions permission was asked to use recorder.

4. RESULTS

This chapter presents the results of the study. It is divided in to five sub topics starting with the social characteristics of the respondents. Following this likert scale questions which were used to measure people's perceptions and attitudes toward bean theft and respondents response is presented. In addition to these, the drivers of bean theft, the issue of women related to bean theft and the factors that determined the adoption of bean cultivation are presented.

4.1 Social Characteristics of Sampled Households

For the in-depth interviews, 22 respondents were selected from 68 households in the *Gotes* Shibeshi Gash 1 and Shibeshi Gash 2 with ages ranging from 19 to 69 years. In addition to these 12 key informants were interviewed (Table 4.1). Table 4.2 shows demographic composition of sampled households.

Six focus group discussions were administered in three *Gotes*. Four focus group discussions (two men and two women) were conducted in Shibeshi Gash 1 and Shibeshi Gash 2 *Gotes*. Two focus group discussions (men and women) were carried out in the Boye *Gote*. This was for comparison purpose. In each group 4-8 respondents participated in the discussions.

Table 4.1 *Number of interviews conducted in the study area*

Interviews	Male(24)	Female(10)
In-depth	63%	37%
Key informant	83%	17%

Table 4.2. *Demographic composition of sampled household by age and sex.*

Age group	Sex	
	Male (24)	Female(10)
15-24	71%	21%
25-50	73%	27%
>50	50%	50%

As shown in Table 4.1 the number of women respondents was less compared to men in both individual and key informant interviews. It was not feasible to include many women in the study due to their domestic work such as taking care of children, cooking food, fetching water and going to market. And also, it is noteworthy, some refused to be interviewed.

4.2 Villagers' Attitudes and Perceptions towards Bean Theft

Table 4.3 *The Likert scale results showing the perceptions towards theft by the respondents*

Statement	1	2	3	4	5
	%	%	%	%	%
1. Theft is culturally unacceptable	100	0	0	0	0
2. Theft is a common practice in this community	85	6	0	3	6
3. Theft should be allowed if someone has nothing to eat (poverty)	12	0	0	3	85
4. Theft is a strong social and economic crisis	100	0	0	0	0
5. Poverty is the major driver for theft	15	6	0	27	51
6. Weak law enforcement from both local and state institutions are the root problem to stop theft	79	18	0	0	3
7. Impossible to stop theft at any cost	24	15	0	18	42
8. Collective actions such as the by-laws can be effective in curbing theft	67	27	0	3	6

1- Strongly agree 2. Agree 3-Neutral 4- Disagree 5- Strongly disagree

4.3 Drivers of Bean Theft

During the interviews and discussions some respondents pointed out that unemployment, poverty and delinquent behaviour were the drivers of bean theft. Other drivers of bean theft were getting money from stolen beans and being released without punishment from the police station. Moreover, other respondents stated that even if children and women were engaged in stealing, the youth were the ones who were stealing to a large degree because they are strong and easily escape. Many respondents indicated that in this area land is given to children when they are grown up. Respondents said that some young people have sold their land and as a result they are land less. This has increased unemployment in the area.

Therefore they claimed that the only remaining option was stealing from other farms and selling to get money and food. In addition to this, respondents indicated that youth does not want to engage in agricultural activities. They do not want to work. One respondent during individual interview stated that:

“We want to work hard to improve our life; we want to work for our children’s better life. But people who do not like to work are stealing from our farm”.

(Source: Individual interview, Beseku Ilala Peasant association, Feb 2009)

As pointed out in the attitudinal questions, 15% of the respondents claimed that poverty is one of the drivers of bean theft. A key informant stated that land shortage and unemployment were leading to poverty and poverty in turn lead to theft. From the interviews and focus group discussions it could be understood that some children were beyond their parents’ control; they did not accept the advice of their parents. The respondent also stated that the formulation of the by- laws did not encourage farmers to grow beans because the youth were not obedient to the by-laws. During interview a key informant made the following remarks:

“There are young boys in our village who are beyond their fathers’ and the Iddir control. They are the ones who are stealing every year. We fear them ... at the present time boys do not obey their fathers, girls do not obey their mothers. Some do not want to work. They do not look for jobs. They want to steal other people’s property. They spend their time in the town and city without jobs”.

(Source: Key informant interview, Beseku Ilala Peasant association, Feb 2009)

4.4 Women and Bean theft

Some farmers in Shibeshi Gasha villages received the information package including bean seeds for planting in the year 2007. These farmers were mostly male farmers belonging to the male *Iddirs*. However, none of them planted any beans in their residential area; some even refused to receive beans while those that received bean seed planted them in other villages. “*Why do you think I bought land in another area to cultivate beans if there is no theft in this area?*” one male respondent questioned during an individual interview. Another respondent on individual interview stated that:

“Farmers have not started growing beans in our area ...I bought land in other area to cultivate bean. It is not possible to grow beans in our area”.

(Source: Individual interview, Beseku Ilala Peasant association, Feb 2009)

Out of the total respondents 25% of the respondents indicated that they buy land in other *Gotes* where there was bean cultivation. As they mentioned they had enough land in their own *Gote* but they were afraid to grow bean because their farm was far away from their home. Some of the people who could afford to rent or buy land in any other *Gotes* were growing beans. No such information was obtained from interviews with women farmers.

The study revealed that women in Shibeshi Gasha *Gotes* were not included in the information and distribution of bean seed in the first round in Beseku. However, they had heard about it and learned from their husband and neighbours about the programme. Thus there was no formulation of by-laws in the women's *Iddirs* in these *Gotes*. During individual interview a women noted that:-

“... in the women Iddir we did not discuss about bean theft and we did not formulate by-laws”

(Source: Individual interview, Beseku Ilala Peasant association, Feb 2009)

A woman who heard about the by-laws from her husband mentioned that:

“ I did not participate in the formulation of the by-laws, but my husband participated in the men's Iddir... and he told me that there is punishment, 200 Birr, if someone does not act according to the by-laws”

(Source: Key informant interview, Beseku Ilala Peasant association, Feb 2009)

Another point is that women are the ones who are supposed to prepare meal for the family. They stated that they were selling large amounts of wheat and maize to buy small amount of beans at a high price. Bean flour is vital to cook sauce to eat with *Enjera* (Ethiopian food). If they do not have enough amounts of crops to sell in the market, they will not get bean. Moreover, most women indicated that they did not have equal decision-making power as men as to whether or not they should grow bean. As they stated men are the ones who decide most of the time. In one key informant interview a widow mentioned that she divided a large part of the family

land to her sons and she remained with small portion of land which is not enough to cultivate bean and other crops.

4.5 Factors Affecting Adoption of Bean Reintroduction

In one of the study areas called Boye, farmers were growing beans. The findings showed that these farmers live close to their farms. Villagization which were government resettlement policy had not been implemented in their *Gote*. As they stated it was possible to guard their farms because their farms were near to their home. Moreover, all women and men participated in the formulation of the by-laws through *Iddir*. On top of this, unlike the Shibeshi Gasha 1 and Shibeshi Gasha 2 *Gotes*, they were from the same ethnic group who were living in this area. Another point that participants raised during the focus group discussion was that they had good consultations amongst themselves concerning bean theft and reintroduction of bean. One participant in women focus group discussion stated that:

“In our area, we formulated the by-laws through Iddir to reintroduce bean cultivation. Parents controlled and gave advice to their children. We have cultivated bean for the last two years. In this Gote we have unity, there are no thieves among us and all want to work hard. We agreed with each other and have common understanding. We agreed not to hide thieves. We expose thieves if we find them in our village farm”.

(Source: Women focus group discussion, Beseku Ilala Peasant association, Feb 2009)

However, in Shibeshi Gasha 1 and Shibeshi Gasha 2 *Gotes*, villagization, fear of conflict, land shortage, poverty and women's lack of participation in the formulation of the by-laws were the main factors which affected the adoption of bean cultivation. Out of 34 interviewees, 76 % of the respondents claimed villagization as the main reason for not growing bean in the area. 44% of respondents suggested that fear of conflict between families, neighbours and different tribes as another factor. This included not exposing thieves due to fear of revenge in the future. In addition, 32%, 26% and 17% of the respondents pointed out that land shortage, poverty and women's absence in the formulation of by-law respectively as additional factors that hindered the growing of bean in these *Gotes*.

Table 4.4 Factors affecting Adoption of Bean reintroduction

Factors	%
Villagization	76
Fear of conflict	44
Land shortage	32
Poverty	26
Absence of women in the formulation of By-laws	17

4.5.1 Villagization

Respondents pointed out that they used to grow bean before they moved to other area by Villagization in Derge Regime. Almost all respondents mentioned that Villagization was a major factor that exacerbated the problem of bean theft. One interviewee stated that:

“Before we came to this area we used to grow bean in our farm. But now we are not growing because our farm is far away from our home. This made difficult to guard our bean field. We came here due to villagization which was part of former government land reform..... I cultivated bean on my land, but thieves stole from my bean farm. Thanks to God, I harvested the remaining and got four quintal from ¼ hectare land. I sold two quintal and kept two of them ... I do not think I am going to cultivate maize either. Because, when I go to guard my maize farm who will guard my home? You do not know when thieves steal maize...”

(Source: Individual interview, Beseku Ilala Peasant association, Feb 2009)

A respondent in individual interview stated that:

“In this area few farmers who have their land near to their home grow beans but not us ...Our farm is far away from our home, it is not possible to guard our farm all the time. Thieves may steal day or night”

(Source: Individual interview, Beseku Ilala Peasant association, Feb 2009)

Another respondent on individual interview stated that:

“... all people came by villagization ... our farm is far away from our home, another thing is there is market nearby our farm so it is possible to sell stolen beans more easily compared to other areas”

(Source: Individual interview, Beseku Ilala Peasant association, Feb 2009)

Similarly, a respondent on individual interview stated that:

“... there are only four or five farmers that have started growing Faba bean.... Their farm is close to their home; they managed to guard their farm. But other farmers whose farms are far away did not cultivate beans because it is difficult to guard day and night. I also did not grow as my farm is far away from my home”

(Source: Individual interview, Beseku Ilala Peasant association, Feb 2009)

Respondents also stated that maize is the staple food crop for the area; however, maize has also not been spared from theft. Maize theft is a recent phenomenon in the area. Farmers indicated that weak law enforcement is leading to another problem like maize theft.

4.5.2 Fear of Conflict

The issue of conflict rose as another factor hindering the growing of Faba bean. Farmers said that there is fear of conflict between neighbours, different tribes, and even between families and relatives especially when confronting the thieves. One respondent indicated that:

“Most people do nothing when they see thief while stealing, they do not want to quarrel with the person who is stealing. This is fear of creating enemy in the future. They think that the thief will come to steal from their farm in the future as revenge. So they prefer not to say anything”

(Source: Individual interview, Beseku Ilala Peasant association, Feb 2009)

One special feature of the area compared to other nearby *Gote* is the mix of ethnic tribes living in the area. Some respondents explained that they do not have unity and trust like other *Gote*. When asked ‘why?’ the answer was “we are mixed tribes”. One key informant interviewee stated that:

“There are two tribes in this Gote: tribe A and tribe B¹. Their living style is a bit different. Tribe A fears tribe B. Tribe B’s children steal beans. Because of this, tribe A does not want to cultivate beans. Tribe A’s children also steal, but tribe B’s children are the ones who steal usually. For this reason, tribe A fears”.

(Source: Key informant interview, Beseku Ilala Peasant association, Feb 2009)

However, one could see different opinions and thoughts about this issue. In focus group discussions, some participants indicated that there are thieves in both tribes. The problem was that they do not expose thieves. If they do, thieves will take revenge on them in the future. Respondents put this idea as ‘buying enemy’ and creating conflict. As a result, they prefer not to expose thieves.

“... You can find thieves in both tribes. We do not support thieves. All dislike thieves. We have the same Iddir. We are eating together. We became relatives through marriage. There are mixed women and men Iddirs. We formulated the by-law together. We grew up together in this area. However, there are people who support thieves ... It is not possible to say there is no thief. There are people who cover thieves, who do not expose thieves. There are families who do not control their children. ... There are families who support thieves. There are criminals... From both sides you can find thieves ... ”

(Source: Men Focus group discussion, Beseku Peasant association, Feb 2009)

One key informant said

“In this Gote people do not expose thieves because thieves will take revenge in the future. Government law is weak, and police release thieves without punishment. So it is better to keep quiet... if I look someone while stealing bean I prefer to pretend as if I am passing by without looking him/her”

(Source: key informant interview, Beseku Peasant association, Feb 2009)

¹ Tribe names A and B used for anonymity

Most interviewees indicated that enforcement of government law is very weak and as a result the problem is not solved. In women focus group discussion respondents indicated that:-

*“the government has to work on this issue, laws should be strong ...
government has to take strong action to punish thieves”*

*“... there should be strong government laws that discourage thieves, it seems
the laws are weak are on the side of thieves”*

(Source: Women Focus group discussion, Beseku Peasant association, Feb 2009)

A key informant said:-

*“Government laws are not strong. Police do not punish thieves under 18
years old. Police release them without punishment.... this is exacerbating the
problem”*

(Source: key informant interview, Beseku Peasant association, Feb 2009)

Most respondents stated that government law should be strong enough to punish and discourage thieves so they could cultivate beans.

The issue of trust and unity among the residents rose repeatedly during interview and focus group discussion.

An individual interviewee stated:-

“in this area people do not trust each other, so we do not grow faba beans”

(Source: key informant interview, Beseku Peasant association, Feb 2009)

Another point that arose in discussions and interviews was that men were afraid to catch women when they found women while stealing from their farm. This is because women will shout and allege it as an attempt to rape. What the men do is they leave them (the women) in their farm. This might lead to conflict between the owner of the farm and the husband of the lady.

As some respondents mentioned that the thieves were often identifiable and they usually were someone's children from the area. Almost all respondents agreed that thieves are insiders from this area. Some respondent said some parents do not give advice to their children and they do not punish them. It is as if they are protecting their children and denying that their children are thieves. Covering their children's

fault is regarded as encouraging theft in the area. Even respondents had mentioned some proverbs that reflected this lack of parental guidance in the upbringing of their children:

'If you punished me while I was stealing small thing I would have not stolen big things'.

One additional factor, which was seen as a problem, is the lack of discussion among neighbours to cultivate beans at the same time. Respondents stated that formulating the by-law is not enough. According to them, there should be a wide range discussion among people in the area. Respondents suggested that lack of discussions and unity is escalating the problem.

4.5.3 Land holding, Population and Migration

Most people in this area were dependent on livestock production for their livelihood but with time this has changed due to population pressure. During individual interviews one respondent explained it as follow:

“In the past people did not have farms ... There was grass everywhere. People had many cattle. They could get enough milk and butter. They had oxen which were good for meat. There was less population. No agricultural technology. You could get enough milk, butter and honey ... now people have cultivated the land, all grazing land is converted into agricultural land. There are no enough cattle, and as a result people cannot get enough milk and butter”.

(Source: Individual interview, Beseku Ilala Peasant association, Feb 2009)

Through time they started mixed agriculture, both crop production and livestock production. In order to expand cropland people cleared forested land. As respondents said that as the number of population increased from day to day, the land holding became small. Most farmers mentioned that they have less than one hectare land. When children are grown up, their parents divide the land among them especially for boys. This continues through generations.

A respondent on individual interview noted that:

“Special feature of this area is there is shortage of land. The Land is not enough for all people. In addition to this, some people do not want to work. As a result there are unemployed youth who are engaged in a bad practice like theft”

(Source: Individual interview, Beseku Ilala Peasant association, Feb 2009)

Migration from other areas in search of land is also another factor for increased number of population and small land holdings in the area. Some respondents indicated that they moved from northern part of Ethiopia. Some people pointed out that they have an interest to grow Faba bean, but due to small land holding, they are not growing it. They mentioned that they prefer to grow maize, the staple food or wheat rather than growing Faba bean.

5. DISCUSSION

This chapter attempts to discuss the findings which are presented in previous chapters and seeks to answer the research questions; 1. What are people's perceptions and attitudes toward bean theft? 2. What are the factors that affect adoption of bean reintroduction in the study area?

5.1 Tolerated Theft

People's perceptions and attitudes toward theft and the amount that they steal determine how the problem is perceived. This study shows that taking small amount of bean from someone's bean field to taste or quench lust was not regarded as theft in the past. Rather, it was considered sharing with those who did not grow bean. There is a locally acknowledged proverb which supports bean sharing, '*When you come across a bean field or a beautiful woman you cannot pass by without enjoying*'. The literal meaning by the local language is “ቆንጆና እሸት ታይቶ አይታለፍም”. Sharing a reasonable 'snack tasting' amount of bean is socially acceptable habit. But now it is beyond tasting. People are poaching bean not only to quench their desire but also to sell in the market. Through time, it became a way of gaining benefit at the expense of the farmers who are growing bean. Many respondents disagree with this behaviour that has moved beyond tasting.

This finding is similar with the Blurton Jones (1987), Bliege Bird and W.Bird (1997) and Hawkes (1993) work on tolerated theft which is food sharing. They had found out that successful foragers share with unsuccessful foragers based on their consumption which follows diminishing marginal return curve. So, the cost of not sharing should be higher than sharing to others. The assumption of diminishing marginal return curve is consumption of additional amount of hunted animal gives less benefit or satisfaction compared to the initial amount to successful foragers. Additionally, sharing among foragers regarded as consumption smoothing strategy in order to minimize 'unpredictable fluctuations in household food intake' (Bliege Bird and W.Bird 1997).

5.2 Drivers of Bean Theft

Youth unemployment is seen as one of the drivers of bean theft in the area. As pointed by Ashford (2007) the population of Sub-Saharan Africa is very young accounts for 44 % of the total population. In Ethiopia the dependency ratio, the number of population under age 15 and age 65 years in relation to the productivity of age 15-64 ages is 85% (MFED 2007). This indicates a high dependency burden. The main source of employment is agriculture in the area as most rural Ethiopia (DFID 2004). However, due to migration and high birth rate the land holding is very small. In addition to this, land inheritance happens when the father dies or smaller pieces of land will be distributed among children. Small landholding is unsustainable and often insufficient for a whole family. Moreover, rural formal sector employment is very low to employ excess labourer. There is lack of diversified income sources such as on-farm and off-farm activities in the area. These could be a contributing factor for youth unemployment.

This finding supported by Shakesheff (2002), Shakesheff has indicated that where there is low employment opportunities, rural people in Herefordshire were forced to crop and wood theft. The main motivation was to meet their family's basic necessities. This finding is also in line with the study by Scott (1985); unemployed poor peasants used theft as a means of protest.

Price of bean in the market is high for youth who sell stolen bean. In Ethiopia the current price of bean is approximately 1500 birr per quintal with 15 birr per kg equal to 1.36 US dollar. International Poverty line for absolute poverty set by World Bank is 1 dollar per day. Selling one kg bean means a lot. Modernity and change has its own effect on agriculture. Youth seek non-agricultural jobs and they do not want to partake in agricultural activities. Agriculture is not acceptable way of making a living. Instead, they prefer to migrate to urban areas in search of waged employment. This is similar to internal migration from the northern part of Sweden to urban area in search of opportunities (Sundberg and Ostrom, 1982). I think there is difference in youth and adult upbringing. Youth do not share the same values as their parents. They want an easy life. This shows that there is generation gap and value change.

As the study shows that both unemployment and poverty are interconnected. Unemployment is leading to poverty and poverty is leading to theft. Theft occurs when there is food shortage and unemployment due to increased population. This finding supported by Fafchamps and Minten (2003) that poverty is driver of theft and the rural poor people use theft as risk coping and consumption smoothing strategy. Similarly, the studies by Schechter (2007) and Shakesheff (2002) have shown poverty as a source of theft.

5.3 Women, Bean Theft and Bean Adoption

Information sharing concerning bean reintroduction was selective; women did not have access to participate in formulation of the by-laws and getting bean. If you are men, however, you are likely to be informed. The men were the ones who formulated by-laws though the men's Iddir. The problem goes back to women participation in important decision-making and access to productive assets (Ellis 2000, p. 234). This shows that the women's position is different from men's power to decide to stop bean theft and to grow bean. Moreover, men are the ones who decide which crop to grow in home gardens and farm fields. Even in the world politics women are often excluded from decision-making processes that affect their own lives (Peterson and Runyan, 1999).

Peterson and Runyan (1999) indicated that women have unequal decision-making power compared to men in government and international organization. Jackson (1999) indicated that globally men have greater access to resources compared to women. Men have more power to control and invest in different resources and they have decision making power. Similarly, Moser and Young (1981) argued that there is gender difference in resource control and decision making power. Peterson and Runyan (1999) argued that the participation of women in decision making will empower women to 'meet their own needs and control their own future'. A study carried out in West Africa showed that the men are the ones who make the decision to buy agricultural inputs. This is due to the socio- cultural norm that it is not acceptable for women to decide together with men (IFAD 1998).

Due to scarce availability and high price of bean in the market, the poor cannot afford to buy it. As a result, the poor were not able to cultivate bean in their farm. This shows that poor and marginalized group especially women are always vulnerable at risk (Dercon 2006). The only alternative that they have is to sell other crops to buy bean.

People who have money were buying or renting land in other areas where there was bean cultivation. This was an additional expense for them. They could have used the money for other purposes. This indicates that poor people who do not have money to buy or rent land suffer from theft. This is affecting household livelihoods in particular, and food security and rural development in general. Selling and renting land have also contributed to the current problem. When people sell land they will be landless or have small land. In turn, it leads to poverty and they tend to steal, creating vicious cycle.

However, it is worthwhile to mention that buying and selling land is forbidden by the current Ethiopian government. According to the Federal Democratic Republic of Ethiopia constitution which is adopted on December 1994, land is owned by the state and the people of Ethiopia (FDRE 1995). Tenants have no right to sell, exchange and mortgage their land except what is provided for is the use right. All rural and urban land is under state ownership. The buying and selling land that was pointed out by respondents is contrary to current government land policy.

5.4 Factors Affecting Adoption of Bean Reintroduction

To be successful in adoption of bean reintroduction you need certain pre conditions namely social cohesion, trust, discussion on the matter of topic and commitment to act according to the by-laws. In addition to this, participation of women in the decision making process has a great role in achieving the intended goal.

5.4.1 Villagization

Villagization and re-settlement of people were part of land reform proclamation of 1975 during the Derge Regime in Ethiopia (Ofcansky and Berry, 1991). The government used this strategy to promote food security, access to land, access to fertile land, and redistribution of population. Before the downfall of Emperor Haile Selassie, land was owned by land lords. Moreover, in 1974 there was a great famine in the country. To give answer to these questions the new government

framed land reform policy in 1975. Article 18 of the 1975 land reform proclamation includes villagization and land settlement. Land settlement is the moving of rural inhabitants from drought prone area to fertile areas as well as the distribution of land to landless peasants.

Although the state had good intentions with villagization, it brought disharmonization. This laid the ground for the current problem in the area. Farmers' farms are far away from their homes. This has made it quite difficult to guard their farms, leaving them exposed to animals, birds and thieves. Anyone who passes by can steal bean, because no one is there to guard them. In turn, it brings conflict among people in the area. I think villagization has exacerbated the problem of bean theft.

This finding corresponds to the Ofcansky and Berry (1991) study. They explained how villagization has affected farmers. It has increased the distance between home and farm. Farmers have to travel long distances to reach their farms which is 'wasting time and effort'. The statement 'wasting time and effort' is likely means just that, Why invest in something that does not pay your effort? By calculating costs and benefits farmers decided whether to grow or not to grow bean. They know how to decide even though they have not gone to school to learn the theory of cost benefit analysis. In the Bible King Solomon states that "There is a time for everything, and a season for every activity under heaven, a time to be born and a time to die, a time to plant and a time to uproot" Eccles. 3:1-2 (IBS 1973). This is to say that there is growing and harvesting time and farmers want to harvest what they have grown in their farm.

The study by Steingraber (1987) in the south West Ethiopia supports this finding. It has showed that due to villagization and resettlement, farmers farm were far away from the place where they reside. Moreover, Steingraber (1987) criticized resettlement and villagization program, as it had political motive behind the program.

5.4.2 Conflict and Harmony

This study shows that people who are living in the area are not secured due to lack of functional welfare state, which provides social security. It is the same as some low-income countries, which are trapped by bad governance and policies (Collier 2007).

Traditionally, the old outweigh local institutions compared to youngsters. Rules, which were conveyed by elders, were respected and accepted by communities in the past. However, new generations do not want to accept traditional laws. They know government rules because of school and they know how to use it. That is why they were released after a few hours or a few days from police station while they were thieves.

According to government laws, if there is no evidence that shows that thieves are guilty, there is no case and therefore no punishment. In order to accuse someone there must be witnesses. If there is no body with you when someone is stealing from your field, you are not able to accuse him, because you cannot be witness as well as accuser at the same time. As the field is away from the living area, it has been hard and impossible to get one as a witness.

Another problem is people do not expose thieves due to fear of future revenge. This finding is similar with the studies of Aaronbrooks (1986) and Schechter (2007). Aaronbrooks (1986) stated that farmers do not take any legal action on crop thieves because thieves could come and take revenge. The study by Schechter (2007) showed that most farmers did not report to polices, due to fear of revenge by the thieves. The worst thing is that thieves might be their own children. How easy it to give your children to police? It takes lot of courage. This might be fear of stigma and fear to be branded as a thief family.

5.4.3 Land holding, Population and Migration

The population is increasing due to high birth rate. In return, land holding is decreasing through time because of this increasing population. The land holding of most farmers is less than one hectare which was another factor which hindered Faba bean cultivation in the area. As a result, they prefer to grow maize or wheat which is staple crops. Some youth are land less and also they are not engaged on off-farm employment activities for another source of income generation. The study in the same area by Chiwona-Karlton *et al* (2009) indicated that less availability of land was the factor for crop changing pattern including Faba beans. Similarly, Gebreselassie (2006) stated that most rural Ethiopian farmers are characterized by small land holding. Small land holding leads to shortening of crop rotation, as a result soil quality and soil fertility is decreasing (Gebreselassie 2006).

Migration of people in search of land and opportunity has its own contribution to the current problem. Migration, from the northern part of Ethiopia through resettlement program during Derg regime, also has a negative effect on the amount of land holding in the area (Ofcansky and Berry 1991). The indigenous people do not like the new comers because land is a priced commodity and major resource for their livelihood. Migration issues have become a worldwide problem. Study by Ortuno (2005) shows that the influx of high number of migrants to Spain is seen as a great problem. Also a study reveals the refusal of migrants by European Union countries. This is due to European Union countries' fear of high unemployment and dissatisfaction among their citizens.

6. CONCLUSIONS

This study has shown that bean theft is affecting the livelihood of the people and it is also wide spread practice in the study area. It is leading to food insecurity and has negative effect in rural development of the country in general. In addition to this, different factors, which affected the cultivation of Faba bean, have been found in this study. Moreover, the study dealt with the role of local institutions in rural Ethiopia in affecting agricultural practices and thereby the economic well-being of a family. It tried to address how food security and economic activities can be enhanced by the long-held and respected tacit rules that are overseen by local institutions which hold a decisive position in rural Ethiopia. The followings are concluding remarks:

- Villagization and land resettlement policies that were framed by government without considering the local situation have escalated the bean theft. Even if land reform, which took place in Derge regime after 1974, had good intentions, it did not consider other factors.
- While local institution, which is *Iddir*, has considerable power, it is being challenged by different factors such as Villagization, fear of conflict, small land holding due to migration and high birth rate. If government works together with these institutions, it may control the problem.
- Youth unemployment and poverty are the main push factors to bean theft. Off-farm employment creation might mitigate bean theft.
- Lack of women participation in the formulation of by-laws and decision making had also negative implication in adoption of bean reintroduction.
- Bean theft is affecting household livelihood and food security of poor more than rich households
- Finally, further investigation is needed to assess the perception and role of higher government officials about the bean theft problem. Moreover, the issue of maize theft which was repeatedly raised by respondents needs its own study because maize theft was also affecting farmers' livelihood in the locality.

REFERENCES

- Aaronbrooks, FJ., 1986. *Good fences make good neighbours: Trespass at the urban fringe*. Culture and Agriculture. Bulletin of the culture and agriculture group.(Number 30)
- Adal, Y., 1999. Rural organizations in Ethiopia: Their conditions and role in sustainable natural resource use and enhancing food security. In T. Asefa, ed. *Food security through sustainable land use: policy on institutional, land tenure and extension issues in Ethiopia*. NOVIB Partners Forum on sustainable land use. Addis Ababa. p. 293-304.
- Agegnehu G., 2006. *Yield performance and land use efficiency of barley and faba bean mixed cropping in Ethiopian highlands*. European journal of Agronomy. 25, 202-207.
- Alvesson, M and Sköldbberg, K., 2000. *Reflexive Methodology: new vistas for Qualitative Research*. London: SAGE Publications.
- Alemu G., 2009. *A case study on aid effectiveness in Ethiopia*. Analysis of the health sector aid architecture. Wolfensohn center for development. Working paper 9. Available at: http://www.brookings.edu/~media/Files/rc/papers/2009/04_ethiopia_aid_alemu/04_ethiopia_aid_alemu.pdf [accessed 4 January 2009].
- Amanuel G., 2000. *Biological nitrogen fixation in Faba bean (Vicia faba L) in the Ethiopian highlands as affected by P fertilization and inoculation*. Bio Fertile soil, 32, 353-359. Available at: www.springerlink.com/index/UVUC4BY55HBJ40T4.pdf [accessed 8 January 2010].
- Ashford, L., 2007. *Africa's youth population, Risk or opportunity*. Population reference Bureau USAID. [On line]. Available at: <http://www.prb.org/pdf07/AfricaYouth.pdf> [accessed 2 April 2009]
- Bardhan, P., 1989. *The new institutional Economics and development theory: a brief critical assessment*. World development, 17, p. 1389-1395.
- Bernard, H., 2000. *Social Research methods: qualitative and quantitative approaches*. SAGE Publications, inc.
- Beseku peasant association, 2009. *List of household in Beseku Illala peasant association*. Ethiopia.
- Bliege Bird, R and W.Bird., 1997. *Delayed reciprocity and Tolerated Theft: the behavioural ecology of food sharing strategies*. Current anthropology, 38 (1).
- Blurton Jones, N., 1987. *Tolerated theft, Suggestion about the ecology and evaluation of sharing, hoarding and scrounging social science Information*. London: SAGE Publication.

- Cauvery, R. et al., 2003. *Research Methodology*. New Delhi: S.Chand and Company LTD.
- Chiwona-Karlton, L et al., 2000. *Low dietary cyanogen exposure from frequent consumption of potentially toxic cassava in Malawi*. International Journal of Food Sciences and Nutrition 51,33-43.
- Chiwona- karlton, L. et al, 2009. *Soil fertility and crop theft: Changing rural dimensions and cropping pattern*. Seasonality Revisited. Institute of Development studies, 17, No 3.
- CIA., 2008. *The world fact book, Ethiopia*. [On line]. Available at: <https://www.cia.gov/library/publications/the-world-factbook/geos/mi.html> [accessed 26 November 2008].
- CIAT (International centre for tropical Agriculture)., 2008. *Evaluating marketing opportunity for haricot beans in Ethiopia*. Available at: [www.ipms-ethiopia.org/.../WP7-Haricot beans marketing in%20Ethiopia.pdf](http://www.ipms-ethiopia.org/.../WP7-Haricot_beans_marketing_in%20Ethiopia.pdf) [accessed 8May 2009].
- Collier, P., 2007. *The bottom billion: why the poorest countries are failing and what can be done about it*. Oxford University Press.
- CSA., 2008. *Summary and Statistical Report of the 2007 Population and housing Census Results*. [On line].Available at: http://www.csa.gov.et/pdf/Cen2007_preliminaray.pdf [accessed 11 December 2008].
- Dawson, S. et al., 1993. *Manual for the use of focus group*. International Nutrition Foundation for developing Countries (INFDC), Boston, MA. USA.
- Dercon, S., 2006. *Vulnerability: a micro perspective*. QEH working paper series- QEHWPS 149, university of Oxford.
- Devereux, s. and Guenther, B., 2007. *Social Protection and Agriculture in Ethiopia*. Institution of development studies, University of Sussex. [On line]. Available at: www.fao.org/es/esa/pdf/workshop_0108_ethiopia.pdf [accessed 7 April 2009].
- Devereux, S., 2000. *Food insecurity in Ethiopia*. [On line]. Available at: <http://cramforum.jrc.it/Shared%20Documents/Food%20Insecurity%20in%20Ethiopia.pdf> [accessed 19 February 2009.]
- DFID., 2004. *Rural and urban development case study –Ethiopia*. Oxford Policy Management.
- Dixon, A B, and Wood., 2007. *Local institutions for wetland management in Ethiopia: sustainability and state intervention*. Centre for Wetlands, Environment and Livelihoods. [On line].Available at: [http://www.iwmi.cgiar.org/publications/CABI_Publications/CA_CAB I_Series/Community_Law/protected/Ch%2008.pdf](http://www.iwmi.cgiar.org/publications/CABI_Publications/CA_CAB_I_Series/Community_Law/protected/Ch%2008.pdf) [Accessed 19 February 2009].

- Duc G. et al., 2008. *Diversity maintenance and use of Vicia faba L. genetic resources*. Field Crops Research 115 (2010) 270 –278.
- Ellis, F., 2000. *Rural livelihood and Diversity in developing countries*. Oxford press.
- Fleisher, M. L., 2002. 'War Is Good for Thieving!' the Symbiosis of Crime and Warfare among the Kuria of Tanzania. International African Institute, Vol. 72, No. 1, pp. 131-149.
- Engels J et al., 1991. *Plant Genetic Resources of Ethiopia*. Economic Botany, Volume 47.
- Faf Champs, M and Minten, B., 2003. *Theft and Rural Poverty: Result of a natural Experiment*. Proceeding of the 25th International Conference of Agricultural Economics (IAAE).
- FAO., 2003. *Trade Reforms and Food Security, Conceptualizing the links*. Rome. [On line]. Available at: <http://www.fao.org/docrep/005/y4671e/y4671e00.htm> [accessed 14 March 2009].
- FAO., 2009. FAO statistical year book 2009. [On line] Available at: <http://www.fao.org/economic/ess/publications-studies/statistical-yearbook/fao-statistical-yearbook-2009/en/> [accessed 7 March 2009].
- FAO., 2009 (Food and Agriculture organization). *The state of food and agriculture. Livestock in the balance*. [On line]. Available at: <http://www.fao.org/docrep/012/i0680e/i0680e00.htm> [accessed 7 March 2009]
- FDRE (Federal Democratic Republic of Ethiopia), 1995. The Constitution of the Federal Democratic Republic of Ethiopia, Addis Ababa: Federal Democratic Republic of Ethiopia; (1997), *Rural Land Administration Proclamation of the Federal Government of Ethiopia*, Proclamation No. 89/1997, Addis Ababa: Federal Negarit Gazette.
- Fufa B., and Hassan M., 2006. *Determinants of fertilizer use on maize in Eastern Ethiopia. A weighted endogenous sampling analysis of the extent and intensity of Adoption*. Agrekon. Volume 45, number 1.
- Gebreselassie, S., 2006. *Land, Land Policy and Smallholder Agriculture in Ethiopia: Options and Scenarios*. Paper prepared for the Future Agricultures Consortium meeting at the Institute of Development Studies 20-22 March 2006. Future Agricultures.
- Hai M A et al., 2003. *Loss of pulms to theft in North-West frontier province, Pakistan*. Crop protection. 22(2003), 891-892.
- Hawkes, K. 1993. *On why male foragers hunt and share food: Reply to Hill and Kaplan*. Current Anthropology 34(5):706-710

- Halderman, M., 2004. The political Economy of Pro-poor Livestock Policy-Making in Ethiopia. Pro-Poor livestock initiative. PPLPI Working Paper No 19.
- Holden. k., 2009. *Fava Beans, Levodopa and Parkinson's Disease*. The Park Bench. An Informative Monthly Newsletter for Parkinson's Patients, Families and Caregivers. Vol 8(3).
- Hundie, B., 2010. *Conflicts between Afar Pastoralists and their Neighbors: Triggers and Motivations*. Institute of Public Management and Development Studies, Ethiopian Civil Service College, Addis Ababa, Ethiopia. International Journal of Conflict and Violence. Vol 14(1) pp 134-148.
- Howard J et al., 1995. *Toward increased domestic cereals production in Ethiopia. Using a commodity systems approach to evaluate strategic constraints and opportunities*. Available at: www.aec.msu.edu/fs2/ethiopia/wp3.pdf [accessed 12 January 2010]
- IFAD (International Fund for Agricultural Development)., 1998. *Agricultural implements used by women farmers in Africa*. The publication and desktop publishing team of IFAD.
- International Bible Society (IBS)., 1973. *The Holy Bible: new international Version*. Colorado Spring.
- Jackson, C., 1999. *Men at work*. European Association of Development Research and Training Institutes, Bonn.
- Johansson, R., 2007. *On case study methodology*. Open house International, 32 (3), p. 48-55.
- Karlton, E. et al., 2008. *Working with farmers and local institutions to improve soil quality in sub-Saharan Africa*. Currents, 43, 7-11. Available at: <http://www.info.slu.se/currents/2008/currents43> [accessed 12 October 2008].
- Kiros, F., 2005. *Enough with famines in Ethiopia: a clarion call*. Tsehi Publisher.
- Kvale, S., 1996. *An Introduction to Qualitative Research Interview*. London: SAGE publications.
- Lindemann w and Glover C., 2003. *Nitrogen Fixation by legumes*. Available at: www.cahe.nmsu.edu/pubs/_a/a-129.pdf [accessed 12 January 2010]
- Lemenih, M., 2004. *Effect of land use changes on soil quality: native flora degradation and restoration in the highland of Ethiopia. Implications for sustainable land management*. Department of forest soil. Uppsala, SLU.
- Lloyd-Evans, S., 2006. Focus Groups. In V. Desai and R. Potter, ed. *Doing development Research*. London: SAGE publications.
- Mammo, T., 1999. *The paradox of Africa Poverty: The role of indigenous knowledge, traditional practice and local institutions*. Lawrenceville, Nj: The red sea press.

- Matthews, P and Marcellos, H., 2003. *Faba Bean*. In Michel Dignand ed. NSW Agriculture. Agfact P4.2.7, second edition. Wagga.
- Mayoux, L., 2006. Quantitative, Qualitative or participatory? Which methods for what and when. In V. Desai and R.potter, ed. *Doing development Research*. London: SAGE publications.
- McCornick P.G et al.,(eds) 2003). Integrated Water and land management research and capacity building priorities for Ethiopia. Proceedings of a MoWR/EARO/IWM/ILRI international workshop held at ILRI, Addis Ababa, Ethiopia, 2-4 December 2002.
- MFED (Ministry of Finance and Economic Development) 2007. *Ethiopia Population Images 2006*.
- MoARD(Federal Democratic Republic of Ethiopia Ministry of Agriculture and Rural Development)., 2003. *Faba Bean Development Plan*. The Ministry of Agriculture and Rural Development. Available at: www.moa.gov.et [Accessed 19 November 2010].
- MoARD(Federal Democratic republic of Ethiopia Ministry of agriculture and rural development)., 2009. State Minister Speech, Appeal 2009. Disaster Management and Food Security Sector/DMFSS. [On line].Available at: http://www.dppc.gov.et/downloadable/reports/appeal/2009/StateMinister_Appeal%202009.pdf [Accessed 19 November 2010].
- MoARD (Federal Democratic Republic of Ethiopia Ministry of agriculture and rural development).,2010. *Ethiopia's Agricultural Sector Policy and Investment Framework (PIF)*.
- Moser, C and Young, K., 1981. *Women of the working poor*. Institute of development studies, Vol.12 no 3.
- Muehlauer F and Tullu A.,1997. *Vicia faba L*. New crop factsheet. Purdue University center for new crops and plant products. Available at: www.hort.purdue.edu/newcrop/CropFactSheets/fababean.html - United States [accessed 05 June 2009]
- Nichols, P., 1991. *Social survey methods: a field guideline for development works*. Oxfam.
- Ofcansky, T and Berry, L., 1991. *Ethiopia: a country study*. Washington, US library of congress. [On line] Available at:- <http://countrystudies.us/ethiopia/45.htm>. [accessed 15 March 2009]
- Ortuno, J., 2000. *Migration, Asylum and Security: the case of Ceuta and Melilla*. University of Barcelona.
- Pankhurst, A. and Hailemariam, D., 2000. *The iddir in Ethiopia: historical development, social function, and potential role in HIV/AIDS prevention and control*. Addis Ababa University.

- Pankhurst, A., 2001. *Conflict management over contested natural resources: a case study of pasture, forest and irrigation in South Wello, Ethiopia*.
- Perkins, J and Thompson, J., 1998. *Cattle theft, primitive capital accumulation and pastoral expansion in early*. New South Wales, 1800-1850. Australian Historical Studies. University of New South Wales.
- Peterson, V and Runyan, A., 1999. *Global gender issues: dilemma in world politics*. West view press.
- Pratt, B and Loizos, P., 1991. *Choosing Research Methods: data collection for development workers*. Development Guidelines No.7.Oxfam.
- Press and Audiovisual Ministry of Information., 2004. *Facts about Ethiopia*. Addis Abeba.
- Pulse Australia Limited., 2009. *Faba bean, (Vicia faba) & Broad Bean, (Vicia faba major)*.
- Rabey JM. et al 1992. *Improvement of parkinsonian features correlate with high plasma levodopa values after broad bean (Vicia faba) consumption.* *J Neurol Neurosurg Psychiatry*. Vol 55(8): 725-7. [On line].Available at:
<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC489215/pdf/jnnpsyc00493-0091.pdf> [Accessed 10 December 2009].
- Rubin, H and Rubin, I., 2005. *Qualitative interviewing: the art of hearing data*. London: SAGE publication.
- Sen, A., 1982. *Poverty and Famines: an essay on entitlement and deprivation*. Oxford University press.
- Shakesheff, T., 2002. *Wood and Crop theft in Rural Herefordshire, 1800-60*. Rural History(2002) 13,1, 1-17. Cambridge University press.
- Steingraber, S., 1987. *Resettlement and Villagization – Tools of Militarization in S.W. Ethiopia*, Cultural Survival Quarterly, Vol. 11, No. 4.
- Schechter, L., 2007. *Theft, Gift-Giving, and Trustworthiness: Honesty Is Its Own Reward in Rural*. The American Economic Review, Vol. 97, No. 5, pp. 1560-158. American Economic Association.
- Scott, J C., 1985. *Weapons of the Weak: Everyday Forms of Peasant Resistance*. New Haven: Yale University Press
- Sundberg, N and Ostrom, K., 1982. *Migration and welfare: a study in Northern Sweden*. Geografiska Annaler. Human Geography. Vol.64, No 2. pp. 153-160.
- Taylor-powell, E and Renner, M., 2003. *Analyzing Qualitative Data*. University of Wisconsin-Extension cooperative Extension Madison.

- Teklu, T., 2004. *Natural resource scarcity and rural conflict: case studies evidence on correlates from Ethiopia*. [On line]. Available at: www.eeacon.org/EEA/conferences/papers/Tesfaye%20Teklu%20-%20ENVIRONMENT-CONFLICTS-ETHIOPIA-JUNEPAPER [Accessed 10 December 2008].
- Tolera, A. and Abebe, A., 2007. *Livestock production in pastoral and agro-pastoral production systems of Southern Ethiopia*. Livestock Research for Rural Development 19 (12) <http://www.lrrd.org/lrrd19/12tole19177.htm>
- Tolera, M., et al., 2008. *Wood species diversity in a changing landscape in the south central highlands of Ethiopia*. Agriculture, Ecosystems and Environment, Volume 128, 1-2, Pages 52-58. [On line]. Available at: <http://www.Sciencedirect.com/science> [accessed 12 October 2008].
- Tschopp R et al., 2010. *Farmers' Perceptions of Livestock, Agriculture, and Natural Resources in the Rural Ethiopian Highlands*. Mountain Research and Development, 30(4):381-390. 2010. International Mountain Society
- UNDP, 2008. *Human Development Index- Ethiopia*. [On line]. Available at: http://hdrstats.undp.org/countries/country_fact_sheets/cty_fs_ETH.html. [Accessed 25 November 2008].
- UN, 2007(United Nations). *The Millennium development Goals Report*. New York 2007. [On line] Available at: <http://www.un.org/millenniumgoals/> [accessed October 18, 2008].
- USDA., 2003. *Crop Characteristics*. Production Estimates and Crop Assessment Division Foreign Agriculture service. Available at: www.ffa.usda.gov/pecad2/highlights/2002/10/Ethiopia/baseline/Et [accessed 10 may 2009].
- USDA., 2005. *Forces shaping food security: Factors affecting production*. Food security Assessment. Available at: www.ers.usda.gov/publication/ [accessed 10 may 2009].
- Willis, K., 2006. Interviewing. In V. Desai and R.potter, ed. *Doing development Research*. London: SAGE publications.
- Wolde-Giorgis, O., 1999. Land Tenure and Institutional Capacity. In T. Asefa, ed. *Food security through sustainable land use: policy on institutional, land tenure and extension issues in Ethiopia*. NOVIB Partners Forum on sustainable land use. Addis Ababa. p. 293-304.
- Woldehanna, T., 2006. *The experience of measuring and monitoring poverty in Ethiopia*. The inaugural meetings of the poverty analysis and data initiative. Mombasa. [On line]. Available at: www.prsp-watch.de/countries/ethiopia.pdf [Accessed 12 April 2009].

- Wood, G. and Gough, I., 2006. *A comparative Welfare Regime Approach to Global Social Policy*. World Development, Vol.34, No.10, (pp.1696-1712), 2006.
- World Development., 2008. *Agriculture for Development*. [On line]. Available at: http://siteresources.worldbank.org/INTWDR2008/Resources/WDR_00_book.pdf [accessed 16 December 2008].
- Yami, M *et al* 2011. *Informal institutions as mechanisms to address challenges in communal grazing land management in Tigray, Ethiopia*. International Journal of Sustainable Development and World Ecology 18(1) pp 78-87
- Zewde, B., 1991. *A History of Modern Ethiopia 1855-1991*. Ethiopia: .Artistic Printing Enterprise.

APPENDICES

Appendix I: Interview Guide for Individual Interviews

The overall aim of the study is to assess factors that affect adoption of bean cultivation in Beseku with a view to enhancing food security. Specific objective is assessing people's attitude and perceptions toward bean theft and elucidating the reasons for lack of adoption of bean reintroduction in two villages in Beseku.

The data, which will be collected from this discussion, will be used for research purpose as part of partial fulfillment of Rural Development and Natural Resource Management in Swedish University of Agricultural Science.

The data collected from this interview will be confidential. Your name and other information will not be disclosed to anybody. In addition to I will not use your name when I transcribe recorded interview.

I. General information

Name _____
Sex _____
Age _____
Marital Status _____
Educational level _____
Occupation _____
Religion _____

II. Open ended and Semi- structured interview questions

1. Do you have farm?
2. What types of crops do you produce in your farm?
3. Is your land good to grow beans?
4. Do you grow bean? 1. Yes 2. No
 - 4.1. If your answer is yes where?
 - 4.2. If your answer is no Why?
 - 4.3 Is theft a problem in this area?
5. How do you perceive bean theft in your community?
6. How do people perceive bean theft in your community?
7. How do people react if they find someone stealing bean?
8. What do you think about bean theft in this community?
9. Why people steal bean?
10. Do they sell in the market stolen bean?

11. Or they use for consumption purpose?
12. Did you participate in the formulation of the by-laws through Iddir in order to stop bean theft in this village?
13. How do you see community's willingness in practicing the by-laws? Are you as a person respectful to it? If yes, how do you describe your respect to it?
14. Did the by law that your Iddir formulate could not stop bean theft? 1. Yes
2. No
 - 12.1 If your answer is yes, then did farmers in your village start growing bean?
 - 12.2. If no, why people fear to cultivate bean after the by-law?
 - 12.3. What about the by-laws that you formulated through Iddirs?
 - 12.4. Did not the by-law and the collective action consider these facts mentioned when first formulated?
 - 12.5 What options do you think can work in the future?
15. Do you have anything else you want to tell me which we do not cover in the above questions?

III. Measuring attitudes

The likert scale questions, to measure people's perception and attitude toward bean theft

16. Theft is culturally unacceptable
 1. Strongly Agree 2. Agree 3. Neutral 4. Disagree 5. Strongly disagree
17. Theft is a common practice in this community
 1. Strongly Agree 2. Agree 3. Neutral 4. Disagree 5. Strongly disagree
18. Theft should be allowed if someone has nothing to eat (poor).
 1. Strongly Agree 2. Agree 3. Neutral 4. Disagree 5. Strongly disagree
19. Theft is a strong social and economic crisis
 1. Strongly Agree 2. Agree 3. Neutral 4. Disagree 5. Strongly disagree
20. Poverty is the major driver for theft
 1. Strongly Agree 2. Agree 3. Neutral 4. Disagree 5. Strongly disagree
21. Weak law enforcement from both local and state institutions are the root problem to stop theft
 1. Strongly Agree 2. Agree 3. Neutral 4. Disagree 5. Strongly disagree
22. Impossible to stop theft at any cost

1. Strongly Agree 2. Agree 3. Neutral 4. Disagree 5. Strongly disagree
23. Collective actions such as the by-laws can be effective in curbing theft
 1. Strongly Agree 2. Agree 3. Neutral 4. Disagree 5. Strongly disagree

Appendix II: Interview guide for Key informants

In-depth interview

1. For how many years you have lived in this village?
2. Have you ever involved as mediator of community problems at different occasions in the past, such as elder, etc.?
3. What was people's response in the past when you agree to do something together as community?
4. How do you express people's behavior in the past and present time in this village?
5. If there exist a change in behavior, why do you think is the case?
6. When do you think bean theft started in this area?
7. What have you done to stop bean theft?
8. Do you think formulating by-laws in order to stop beans theft is better than going to police or kebele?
9. If you agreed to grow beans, why you or some people in the village did not start growing?
10. How do you describe bean cultivation in this village compared to others?
11. If there is low bean reintroduction here, why do you think so? Why this village is so low in reintroduction? I.e. why farmers in other villages grow beans?
12. If you have by laws, which prevent bean theft, what are the factors, which you think as a main problem hindering farmers not to grow bean in this village?
13. What other options do you foresee that can overcome the lists of problems you mentioned?
14. Do you have anything else you want to tell me which we do not cover in the above questions?

Appendix III: Interview guide (Focus group discussion)

1. Have you taken any action concerning bean theft in this area?
2. How many of you agreed to formulate by-laws through Iddir in order to stop bean theft in this village?
3. What is the importance of the by laws?
4. How do you describe the practice of bean cultivation before and after? Is there any change?
5. If cultivation is not as expected, what do you think the main problem?
6. Do you think that your village is different from other villages of the Peasant association? If yes what are these unique features of your village compared to the others?
7. Why do you think other villages farmers started growing beans?
8. What hope for the future?

Appendix IV: Interview guide (Focus group discussion where there is bean reintroduction)

1. How do you describe the practice of bean cultivation before and after you formulated by-laws to stop bean theft?
2. What was people's response to by-laws? Or how people react to by-laws?
3. Why do you think farmers in this village are successful in reintroducing bean cultivation?
4. How do you express people's commitment to by-laws?
5. Have you found anyone who does not act in accordance with the by-laws?
If so, have you taken any action based on your agreement?
6. Did all farmers in Beseku Peasant association start growing?
 1. Yes 2. NoIf no, why do you think they did not start growing?
7. Would you like to say anything to farmers who do not adopt reintroduction of bean?

Thank you!

All pictures are taken by the author
©2009