

**Contribution of Agricultural Cooperatives to Food Security and Rural
Development in Ethiopia: A Case Study of a Cooperative at Sire District, Arsi
Zone, Oromia National Regional State**

A THESIS

**Submitted to Indira Gandhi National Open University in Partial Fulfillment of
the Requirement for the Degree of Master of Arts in Rural Development**

BY

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**November 2013
Addis Ababa, Ethiopia**

Declaration

I hereby declare that this Dissertation entitled, CONTRIBUTION OF AGRICULTURAL COOPERATIVES TO FOOD SECURITY AND RURAL DEVELOPMENT IN ETHIOPIA: A CASE STUDY OF A COOPERATIVE AT SIRE DISTRICT, ARSI ZONE, OROMIA NATIONAL REGIONAL STATE Submitted by me for the partial fulfillment of M.A. in Rural Development to Indira Gandhi National Open University,(IGNOU) New Delhi is my original work and has not been submitted earlier either to IGNOU or to any other institution for the fulfillment of the requirement for any course of study. I also declare that no chapter in whole or in part is lifted and incorporated in this report from any earlier work done by me or others.

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CERTIFICATE

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a student of M.A(RD) from Indira Gandhi National Open University, New Delhi was working under my supervision for his project work for the course MRDP-001. His project work, entitled, “CONTRIBUTION OF AGRICULTURAL COOPERATIVES TO FOOD SECURITY AND RURAL DEVELOPMENT IN ETHIOPIA: A CASE STUDY OF A COOPERATIVE AT SIRE DISTRICT, ARSI ZONE, OROMIA NATIONAL REGIONAL STATE”, which he is submitting, is his genuine and original work.

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Acknowledgement

First and foremost, I am ever grateful to my Almighty God, the Creator, Savior and the Guardian and his mother St. Mary, and to them I owe my very existence and help me during this research work and indeed, throughout my life.

Many efforts have been put to bring this thesis to its final. So, in connection with this, I would like to express my great thanks to all those who have helped me during the study time. And then my special thanks go to my advisor Mengistu Hulluka (Dr.) for his supports, invaluable advice, tirelessly went through the paper and made comments, and encouragement during the study period up to its final.

I would also like to thank Akaki Kalitib Sub-city woreda 4 Trade and Industry development Office for its material support, particularly Ato Alemu ketema, head of the Office and Ato Tesfaye Abrham for their valuable support and assistance. I would like to extend my thanks to Sire woreda Cooperative Promotion and Development Office and staff for their cooperation in facilitating data collection. My thanks are also due to Ato Getachew Legese, who is head of SWCPDO for his assistance in facilitating data collection.

I also extend my thanks to my friends and relatives, Tensae Birhanu for his support for revising the document and provide important comments, Mesfine Assefa and Askal Assefa for their financial assistance, Assegid Assefa for his support for data collection. Finally, my sincere appreciation go to my mother, Amarech Ashenafi, and Birhan Taye, Yeshiareg Assefa and Zelalem Assefa for their support and encouragement to finalize my study.

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ACRONYM and ABRIVATION

ACSI	Amhara Credit and Saving Institution
ADLI	Agricultural Development Led Industrialization
CA	Collective Action
CSA	Central statistic Authority
DECSI	Dedebit Credit and Saving Institution
DFID	Department for International Development
FAO	Food and Agricultural Organization
FCC	Facilitators for Change
GDP	Gross Domestic Product
ICA	International Co-operative Alliance
IGS	Income generating scheme
MFI	Microfinance Institute
MOAFSC	Ministry of Agriculture Food Security and Cooperate
MOFED	Ministry of Finance and Economic Development
MOF	Ministry of Finance
MPCs	Multi-purpose cooperative
ONRS	Oromia National Regional State
PA	Peasant Association
PASDEP	Plan for accelerated and sustained development to end poverty
OCSSCO	Oromiya Credit and Saving Share Company

SACCO	Saving and Credit Cooperative
SDFEDO	Sire District Finance and Economic Development Office
SPSS	Statistical Package for Social Scientists
SWCPDO Office	Sire woreda Cooperative Promotion and Development
UN	United Nations
UNDP	United Nation Development Programme.
USAID	United States Aid for International Development
USDA	United State Development Agency
USD	United State Dollar.

ABSTRACT

Poverty is a major social and economic problem in Ethiopia. The country is often reported as one of the poorest country in the world. The country has undertaken various measures to reduce the impact of food insecurity in the rural community. One of the strategies that the country has undertaken to reduce food insecurity and enhance rural development is the establishment and strengthening of rural cooperatives.

SACCO and MFI were established and expanded in rural area to reduce food insecurity through improved production and income of the rural people. The purpose of this study was to study the role of Saving and Credit Cooperative on food security and rural development in ONRS, Arsi zone, Sire district. The research was based on three main objectives;

1. To determine the contribution of cooperatives on rural food security and rural development;
2. To identify factors affecting cooperative contribution for improving food security and rural development;
3. To propose development solution for improving the contribution of cooperatives on food security and rural development.

The researcher used descriptive, cross sectional and associational research designs. Descriptive design was used in describing the impact of accessing credit and its role on food security. Associational design was used in establishing the relationship between credit accessibility and production and income improvement.

Findings of the study revealed that organizing SACCO in rural area has played a positive role on the rural development at Sire district. It has played a positive role on improvement of production and income of poor households. However, the study found some gaps in SACCO's interventions, for example, in skill training. Trainings were not given to most SACCO members to utilize the finance in the way that improves their income. In addition, some marginalized groups like widows, elderly and adolescents without land were mostly less favored.

Finally the study recommended that in order to improve food security of the rural poor people of Sire district the government should conduct skill development training and organize and strengthen SACCO that should finance more loan to people who are lacking security and hedge against credit risk through proper credit rating and allowing members to form core groups which would act as security. Finally, SACCO should consider the inclusion of the needy, like the widows and teenagers

Chapter 1: Introduction

1.1 Background

1.1.1 Poverty and food security situation in Ethiopia

Poverty is a major social and economic problem in Ethiopia. The country is often reported as one of the poorest country in the world. By all dimensions of poverty, current studies show that the country has a large concentration of poverty where out of the total population about 45% are estimated to live in absolute poverty unable to lead a life fulfilling the minimum livelihood standard. Absolute poverty situation is more serious in rural area (MOFED, 1994; Yohanes, 1995; MEDaC, 1999; Zenasilassie, 2001).

Poverty cannot be defined simply in terms of lacking access to sufficient food. It is closely associated with a person's lack of access to productive assets, services and markets. Without access to these, it is unlikely that production and income earning capacities can be improved on a sustainable basis. Rural poverty is related to food insecurity, access to assets, services and markets; income-earning opportunities; and the organizational and institutional means for achieving those ends.

The chronic and severe food insecurity that has characterized Ethiopia over the last several decades has exacerbated the already serious obstacles facing the country's economic and social development and lead 45 percent of the rural population under poverty. In 1999 alone, it was estimated that over six million people (approximately

one tenth of the population) require food aid and at least an additional two million people was at risk of facing serious food shortage (Emily Frank, 1999). The international donor community is currently comparing the food insecurity situation in Ethiopia to the famine of 1984-85. Addressing the structural causes of food insecurity has become a national priority for the Ethiopian government and the international community.

1.1.2 Cooperative and Food security

The country has undertaken various measures to improve food security situation of the rural community. One of the strategies that the country has undertaken to reduce food insecurity and enhance rural development in the rural area is the establishment and strengthening agricultural cooperatives. Cooperatives are pillars for agricultural development and food security and play a crucial role in reducing poverty, improving food security and generating employment opportunities (Bezabih, 2009).

Cooperatives, as economic enterprises and as self-help organizations, play a meaningful role in uplifting the socio-economic conditions of their members and their local communities. The people of Ethiopia have a very long social history of working together to fulfill their socio-economic needs. In Ethiopia traditional forms of cooperation involved community members voluntarily pooling financial resources through “*iqub*”, which was an association of people having the common objectives of mobilizing resources, especially finance, and distributing it to members on rotating basis. There were also initiatives for labour resource mobilization that were to overcome seasonal labour peaks, known as “*Jigie*”, “*Wonfel*”, among others. There

also was the *idir*, which was an association for provision of social and economic insurance for the members in the events of death, accident, damages to property, among others. These informal associations continue to operate in Ethiopia (Bizabi Emana, 2009). Many social events are still taking place in rural Ethiopia through collective effort (Cooperative sector development strategy, 2012).

In recent years, many developing countries have promoted cooperatives as a development strategy that empowers communities to exit from poverty (Develtere et al., 2008; Emana, 2009). However, despite the potential gains that cooperatives have for poor rural communities (e.g., increasing bargaining power of smallholders in imperfect markets; facilitating access to new markets; allowing communities to share risk collectively), it is not clear if they can boost people out of poverty (Bernard et al., 2010). Studies have shown that poor households are less likely to participate in cooperatives and that, in most cases, cooperatives are located in areas where access to markets are better than average. In fact, this suggests that cooperatives tend to favor better-off households (i.e., more educated and with more land) (Bernard et al., 2008; Francesconi, 2009; Kodama, 2007).

Following Carter and Barrett (2006), a poverty reduction policy should be oriented to households who otherwise would not be able to climb out of poverty on their own. They propose an asset-based approach which differentiates between transitional and structural poverty by identifying an asset threshold at which households can escape poverty. Therefore, if cooperatives are to be successful at poverty reduction, it is

necessary to understand first whether poor smallholders participate in cooperatives and whether this participation provides a means for structurally poor households to exit poverty.

1.2 **History of Cooperative in Ethiopia**

Ethiopian cooperatives, as one of the oldest formal type of CA, have a long and tumultuous history (Bernard *et al.* 2008; Francesconi 2008). Modern cooperatives were introduced in Ethiopia soon after the Italian invasion of 1936, but it was only in the 1960s that cooperatives were legally enacted (FCC 2004). According to Wolday (2003), cooperative movements in Ethiopia started to accelerate in the late 1960s with the launching of comprehensive agricultural development projects.

The main purpose of joining cooperatives at that time was to get loans for farm inputs and funds for the processing and marketing of coffee. However, only a small part of the marketed Ethiopian coffee was sold through cooperatives. These cooperatives were in their infant stages by the time the Derg regime took over leadership of the country in 1974. The military government destroyed all multipurpose cooperatives (MPCs) and replaced them with new types of rural organizations in line with socialist doctrines (*ibid.*).

The Derg regime strongly supported the establishment of cooperatives and in 1976 the first proclamations for the establishment of Ethiopian cooperatives were issued. The largely negative experiences with cooperatives led to their dissolution following the fall of the Derg in 1991 (Bernard *et al.* 2008).

Cooperatives began to re-emerge a few years after the Derg, with strong encouragement and support from governmental and non-governmental development agencies (Francesconi 2008; Bernard *et al.* 2008; Bernard and Spielman 2008). In 2002, the Federal Cooperative Agency of Ethiopia was created to organize and promote cooperatives at the national level (Bernard *et al.* 2008). While cooperatives were a means of extending state authority and control during the Derg, they now functioned as generally independent and voluntary entities (Bernard and Spielman 2008). As a result, Ethiopian cooperatives have developed strongly in the last decade (Bernard and Spielman 2008, 2009).

Moreover, since the 1990s, agricultural cooperatives were given a main role in the ADLI strategy of the Ethiopian government. In this strategy, cooperatives were used to unlock Ethiopia's agricultural growth potential and reduce poverty by providing a better institutional environment for integrating smallholders into international market (*ibid*). Its ambitious strategic plan was to provide cooperative services to 70 per cent of the rural population by 2010, increasing the share of the cooperative input marketing to 90 per cent and increasing the share of cooperative output marketing to 60 per cent (from an estimated 10 per cent in 2005). This was to be achieved through the establishment of primary cooperatives in each *kebele*, and bolstered by the establishment of 500 new cooperative unions, six cooperative federations and a cooperative league. Additionally, each cooperative organization was expected to be governed and managed democratically (Bernard *et al.* 2008; Bernard and Spielman 2009). Although the number of primary cooperatives and unions has been increasing

over the last few years, the impact of this on agricultural marketing systems is not yet known.

1.3 Statement of the problem

Over the last three decades, widespread poverty has prevailed in many Sub-Saharan African countries of which Ethiopia is the most affected one. On the one hand, over the last 50 years, the international financial institutions, led by the World Bank, have been prescribing different approaches and strategies for tackling poverty in developing countries. However, policy reforms have not resulted in economic growth and poverty reduction. Although some success stories of economic reform and growth in different countries have been reported, poverty remain pervasive and continue to plague millions of people in most African countries, owing to unequal access to resources (World Bank, 2000). The same source stated that Africa enters the 21st century comprising some of the poorest countries in the world. About 290 million people, who constitute about 46 percent of the total population of the region, live on less than 1\$ dollar (one USD) per adult per day. Average per capita income is even lower than the 1960s. Income, asset, and access to essential services are unequally distributed. The most vulnerable to poverty live in rural area (World Bank, 2000a). A significant proportion of the population doesn't have access to safe water and has limited or no access to social services, such as education and health (World Bank, 2001).

The difference in the level of well being in urban and rural area is wide, particularly striking in Africa and south Asia, although the incidence of urban poverty is on the increase in low income countries (Ellism, 2000). But although this distinction between

rural and urban is always pertinent from the point of view of the extent and the depth of poverty, estimating it through income (which is always lower in rural area) produced only an imperfect reflection of the truth.

According to FAO (1997 & 2001), in most developing countries, urban poverty is a consequence partly of rural poverty. In rural area, livelihood insecurity pushes population towards urban centers in expectation of a better life. According to the context of rural-urban migration, addressing rural poverty actually presents formidable opportunity for preventing urban poverty (FAO, 2001).

Ethiopia's poverty, for the last nearly forty decades, more specifically of its chronic food shortage, has made the country to depend on external food assistance. Buchanan, et al. (1995) indicated that since the mid 1980s, Ethiopia has become one of the largest recipients of food in the world, over 80 percent of it is carrying the emergency label. Yet, the country has continued to suffer from recurrent episodes of acute food insecurity, even famine. It is estimated that more than half of the population is food insecure and the proportion is growing as poverty intensifies. The Ministry of Finance (MOF, 1998) has indicated that during 1992/93-1997/98 Ethiopian economy had grown by about 6 percent on the average; but Zenasilassie (2001) claim that this aggregate measure of economic growth trend provided only the crudest indicators of welfare and do not portray the poverty trends. Mohammed (2001) has also argued that economic growth does not necessarily mean poverty reduction as far as there is unequal distribution of resources, unbalanced growth in the public and private sector, resources

do not reach the poor, etc. Sintayehu (1995) as cited in Zenasilassie, (2001) discussed that poverty in Ethiopia has been examined in different ways and information on the level of poverty were contradicting. Nevertheless, until recently figures between 50 and 70 percent had been largely used both by the government and donors to indicate the percentage of poor people in the country and these figures were based on limited assessments and non-representative sample size (Zenasillassie, 2001).

Ethiopia is currently facing challenging problems ranging from those induced by environmental crises to those caused by demographic and socio-economic constraints, which adversely affect peoples' production system. The country is generally characterized by extreme poverty, high population growth rate, severe environmental degradation and recurrent drought (World Bank, 1992; Getachew, 1995; Markos, 1997). This has resulted in agriculture being poor for several years, to the extent that the country could not adequately feed its population from domestic production. This has been manifested in the prevailing food insecurity, both chronic and transitory, which has almost become a structural phenomenon and the way of life for a significant proportion of the population of the country.

According to various studies, the principal indicators of the magnitude of the problem at national level include: i) sharp decline in per capita food availability for consumption, in response to the rapid population growth on one hand, and the stagnant or very slow growth in agricultural production, on the other, which has been far below the recommended rate (2100 Kcal) (Getachew, 1995); ii) considerable increase in the

volume of imported food both through purchase and in the form of aid (Tesfaye and Debebe, 1995); iii) prevalence of energy deficiency among adults; and iv) high rate of children's malnutrition as evidenced by high rates of stunting, (64.2%), wasting (8%) and being underweight (47.6 %) (CSA, 1992). For at least 50% of farm families, production systems do not satisfy basic needs. Increasing number each year become food insecure and most rural household face a hungry season every year (TGE/ UNDP, 1993).

It is increasingly recognized that the commercialization of surplus output from small-scale farming is closely linked to higher productivity, greater specialization, and higher income (Timmer, 1997). Furthermore, in a world of efficient markets, commercialization leads to the separation of household production decisions from consumption decisions, supporting food diversity and overall stability. At the macro level, commercialization has also been shown to increase food security and, more generally, to improve allocative efficiency (Timmer, 1997; Fafchamps, 2005).

However, in the face of imperfect markets and high transaction costs, many smallholders are rarely able to exploit the potential gains from the commercialization (de Janvry et al, 1991; Key et al, 2000). In the absence of mechanisms to cope with these, smallholders are unlikely to participate in markets, or when they do, to realize the full benefits of participation. These challenges are particularly important in sub-Saharan Africa, where empirical evidence suggest that the proportion of farmers engaged in

subsistence agriculture remains very high. Those that participate in markets often do so only at the margins because of high risks and costs associate (Jayne et al, 2006).

Yet farmers, policymakers, and administrators in Ethiopia have made concerted efforts in recent decades to reverse this situation. One particular effort has been to strengthen the role of farmers' cooperatives in improving the food security situation of the rural poor household and contribute in rural development as a whole.

1.4 Objectives of the Study

1.4.1 Main objective of the study:

- To assess the contribution of cooperatives for food security and rural development.

1.4.2 Specific objective of the study:

- a) To determine the contribution of SACCO on rural food security rural development;
- b) To identify factors affecting cooperative contribution for improving food security and rural development;
- c) To propose development solution for improving the contribution of cooperatives on food security and rural development.

1.5 Research questions

- What is the contribution of cooperative on rural food security and rural development?
- How do the poor interact with cooperatives?

- What can the government do to strengthen cooperatives in support of national food security and rural development programme?
- What interventions can improve the responsiveness of cooperatives to food security and rural development?

1.6 Scope of the study

1.6.1 Geographical scope

This study took place in Sire District, ONRS of Ethiopia.

1.6.2 Content scope

The study investigated the relationship between Savings and Credit Schemes and food security in Sire district, ONRS as a case study.

1.7 Limitation of the Study

The study was undertaken in one of the 190 districts of ONRS. Sire district is one of the 26 districts of Arsi Administrative zone. Due to limited resources (human, financial and material) the study was restricted to 120 respondents of SACCO members. The results from this study would have practical validity mainly to the study area and can serve as a basic ground for any further studies to be conducted in this discipline.

1.8 Organization of the Study

The thesis has five chapters. Chapter one is concerned with the introductory part including background, problem statement, objective of the study, significance of the study, limitation of the study and organization of the study. The second chapter of the paper deals with literature review, which comprises the conceptual framework of the study area. Chapter three describes methodology used. Chapter four, deals with

empirical analysis and findings of the study. Chapter five describes conclusion, Summary and recommendation and policy implications.

1.9 Significance of the study

Many authors (e.g. Ellis, 2000; World Bank, 2000, Zenasillassie, 2001) have indicated that the problems of food insecurity in developing countries are vast and complex. Food insecurity affects people of different characteristics in different ways, because they play different roles, have different needs and face different constraints and opportunities. Many countries have developed different programmes and approaches to improve food security and rural development. Many studies (Develtere et al., 2008; Emanu, 2009) also show that Cooperatives are pillars for agricultural development and food security and play a crucial role in reducing poverty, improving food security and generating employment opportunities. As a result of this, many developing countries have promoted cooperatives as a development strategy that empowers communities to exit poverty. Proper understanding of the role of cooperatives in food security and rural development is a key to the formulation of policies, designing appropriate strategies and practical steps that the government can take in order to reduce poverty and promote sustainable growth at macro and micro levels.

Hence, it is expected that an understanding of the role of cooperative for food security and rural development and the constraints on rural cooperative can provide bases necessary to formulate appropriate measure and plausible intervention strategies. So, the outcome of this study might contribute towards improving the role of SACCO for

uplifting rural economy and reduce rural poverty. The finding from this study also helps to understand the role of SACCO on food security and their constraints in the study area as well as, areas with similar characteristics. Therefore, local and international organizations might benefit with the result of the study in order to direct their efforts towards reducing food insecurity and promoting rural development.

Chapter 2: Literature Review

2.1 Concept of Cooperative (Link with the title mentioned below)

Cooperation has been the very basis of human civilization. The inter-dependent and the mutual help among human beings have been the basis of social life. It is the lesson of universal social history that man cannot live by himself and for himself alone. Since the beginning of human society, individuals have found advantage in working together and helping one another in all over the world (Tsegaye, 2003). In Ethiopia too, it is common for people to be inter-dependent in mutual help and self-help activities in their day-to-day socio-economic conditions. In Ethiopia traditional forms of cooperation involved community members voluntarily pooling financial resources through “*iqub*”, which was an association of people having the common objectives of mobilizing resources, especially finance, and distributing it to members on rotating basis. There were also initiatives for labour resource mobilization that were to overcome seasonal labour peaks, known as “*Jigie*”, “*Wonfel*”, among others. There also was the *idir*, which was an association for provision of social and economic insurance for the members in the events of death, accident, damages to property, among others. These informal associations continue to operate in Ethiopia (Bizabi Emana, 2009),.

The traditional cooperatives are traditional form of associations, which should be basis to modern form of cooperatives in Ethiopia. Ivan Milanoff, a cooperative scholar, remarked that diversity of cooperatives is Kaleidoscopic and their variability is likely

infinite (Kimberly and Cropp, 2004). Because of this diversity, no universally accepted definition of a cooperative exists. Two definitions, however, are commonly used:

(a) A cooperative is an autonomous association of persons united voluntarily to meet their common economic, social and cultural needs and aspirations through a jointly owned and democratically controlled enterprise (International Cooperative Alliance [ICA], 1995).

Cooperative leaders around the world recognize the ICA, a non – governmental organization as a leading authority on cooperative definition and values. The ICA 12 definition recognizes the essential elements of cooperatives; membership is voluntarily, coercion (force) is the antithesis (contrast) of co-operation. Persons compelled to act contrary to their wishes are not truly cooperating. True cooperation with others arises from a belief in mutual help; it cannot be dictated in authentic cooperatives, persons join voluntarily and have the freedom to quit the cooperative at any time (Chambo, 2009).

(b) Another widely accepted cooperative definition is the one adopted by the United States Department of Agriculture (USDA) in 1987. “A cooperative is a user-owned, user-controlled business that distributes benefits on the basis of use.” This definition captures what are generally considered the three primary cooperative principles such as user ownership, user control and proportional distribution of benefits (Chambo, 2009). The “user owner” principle implies that the people who use the cooperative members help finance the cooperative and therefore, own the cooperative. Members are responsible for providing at least some of the cooperatives’ capital. The equity capital

contribution of each member should be in equal proportion to that member's use (patronage) of the cooperative. This shared financing creates joint ownership, which is part of the ICA cooperative definition.

The "user- control" concept means that members of cooperatives govern the business directly by voting on significant and long-term business decisions and indirectly through their representatives on the board of directors. Cooperative statutes and by-laws usually dictate that only active cooperative members (those who use the cooperative) can become voting directors, although non-members sometimes serve on boards in a non-voting, advisory capacity. Only cooperative members can vote to elect their board of directors and on other cooperative actions. Voting rights are generally tied to membership status-usually one member, one-vote and not to the level of investment in or patronage of the cooperative. Sometimes instead of one vote per member, voting rights are based on the volume of business the member transacted the previous year with the cooperative. Generally, however, there is also a maximum number of votes any member may cast to prevent control by minority of members. For example, a grain cooperative might permit one vote to be cast for each 1,000 bushels of grain marketed the year before, but any single member would be limited to a maximum of ten votes. Democratic control is maintained by tying voting rights to patronage. Equitable voting rights, or democratic control (as written in the ICA definition), are a hallmark of cooperative. "Distribution of benefits on the basis of use," under this principle, members should share the benefits, costs, and risks of doing business in equal proportion to their patronage. The proportional basis is fair, easily explained and

entirely feasible from an operational standpoint. To do otherwise distorts the individual contributions of members and diminishes their incentives to join and patronize the cooperative. Cooperative benefits may include better prices for goods and services, improved services, and dependable sources of inputs and markets for outputs. Most cooperatives also realize annual net profits, all or part of which are returned to members in aptly called patronage refunds (Chambo, 2009).

2.2 Saving and credit Cooperatives (SACCOs)

A Savings and Credit Co-operative (SACCO) is a democratic, unique member driven, self-help cooperative. It is owned, governed and managed by its members who have the same common bond: working for the same employer, belonging to the same church, labour union, living/working in the same community. A Savings and Credit Cooperative's membership is open to all who belong to the group, regardless of race, religion, color, creed, and gender or job status. These members agree to save their money together in the SACCO and to make loans to each other at reasonable rates of interest. Some amount of interest is charged on loans, to cover the interest cost on savings and the cost of administration. There is no loan for outside of the members. Hence there is no payment or profit to outside interest or internal owners. The members are the owners and the members decide how their money will be used for the benefit of each other. This is formulated by their bylaws.

SACCOs are democratic organizations and decisions are made in a structured democratic way. Members elect boards that in turn employ staff to carry out the day-to-day activities of the SACCO. The number of board members is varying according to

areas which the SACCO is operating. However the range is between nine and fifteen. Members also elect a supervisory committee to perform the function of an internal audit if member's capability is good.

2.3 The role of savings and Credit schemes'

In general savings and credit schemes have contributed much towards rural development and rural financial accessibility. A Savings scheme is a programme designed to encourage savings through small but regular deposits or automatic deduction from salaries or wages. Savings and credit scheme aims at poverty alleviation to poor and low income families.

Savings and credit schemes are becoming a beacon of hope to the developing countries. These institutions grant loans to members at reasonable rates of interest in times of need. The lent money helps entrepreneurs in impoverished societies to start essential businesses in their communities (Guilford, 2007).

One process of micro lending that has been successful for people at both ends of the economic spectrum is a microfinance credit scheme. Socially conscious investors can go to Savings and credit schemes and invest whatever amount they want, and even choose the area where the money will go and what annual return they would like to earn on the money. Credit Schemes then distributes the investment to the micro lenders that service the chosen area or project. The money is lent to the impoverished entrepreneurs who use the money to start or finance businesses that enables them to

rise up out of poverty. The entrepreneurs repay the loan with interest, and the original investor has helped raise someone out of poverty and earns a return on his investment at the same time (Guilford, 2007).

According to Guilford (2007) credit facilities enable impoverished persons to start businesses, rebuild after natural disasters like floods and hurricanes, and to receive both short- and long-term loans to meet their financial needs and improve their overall quality of life. The impact of micro lending is changing the economic landscape of the areas where it is most prevalent. Magyezi (1999) states that savings act as collateral security for the savers to acquire more and bigger loans. He confirms that such practices promote saving culture. The extent to which savers benefit from the savings remain unclear as the credit providers attach very low interest to it. According to Hanning (1997) MFI clients who attend business education and other curricular activities provided by Savings and Credit Schemes save on sustainable basis compared to those who do not attend. Ndora (1999b) recommends that participants in Microfinance institutions should be encouraged to save in every training session in a bid to promote clients' saving. According to him, business education and saving culture should be encouraged in every training session in a bid to promote clients' saving culture.

Mulira (1991) contends that what Micro Finance Institutions do by establishing clients' interests and feeling through education is essential. He clarifies that education enhances learners' self motivation by developing inquiring mind; they gain proficiency

in speaking, reading, and writing and can communicate effectively as individuals or as groups. He adds that business education develops attitudes for group work, social justice, cooperation, friendship and respect for humanity. Needham (1996) describes the need for education for developing participants' skills for transfer in the new and changing situations. It develops the creativity and potential for communication. He explains that the participants apply a range of skills and techniques to develop a variety of ideas in the creation of new and modified products.

2.4 Linking Food Security with SACCO

Food security is defined as access by all people, at all times to sufficient food for an active and healthy life and includes at a minimum the ready availability of nutritionally adequate and safe foods, and an assured ability to acquire acceptable foods in socially acceptable ways (FAO, 1997; Sarah, 2003). Access to adequate food is a necessary but not a sufficient condition for a healthy life; a number of other factors, such as the health and sanitation environment and household or public capacity to care for vulnerable members of the society, also come into play (von Braun et al, 1992). The inability of the poor to have access to needed food can be attributed to low income and food production. Food insecurity on the other hand connotes a temporary shortfall of adequate food for a proper diet (transitory food insecurity) as well as a long term food shortage called chronic food insecurity.

Rural and urban households cope with transitory food insecurity by diversifying their source of income through selling assets, or by resorting to informal financial credits,

savings and insurance markets. The informal financial sector now acts as the place of solace for the rural poor to augment their consumption needs and meet other basic necessities of life. For the attainment of food security in Ethiopia, there is therefore no gainsaying the prime position of the informal financial through saving and credit sector in ensuring consumption smoothing all year round for the rural and urban poor. In achieving this, farmers operating on small scale and having scattered farms needs to be brought together and properly organized to take the advantage of group actions as this will make them to be better equipped to take advantage of credit assess from the informal sources. Again, government must play an active role through assisting the informal lenders either through education or creating an enabling environment for competition. Proper organization of the SACCO will reduce the pressure on the formal sectors like banks and other specialized institution. Credit acquisition from the formal financial institutions poses some specific problem for the rural poor. The poor have little or no collateral to offer. Savings and credit amounts and installments are very small, raising transaction costs per unit (Zeller *et al*, 1997). SACCOs has been and will for a long time remain the last hope for credit acquisition for inhabitants of developing countries. This is because of the ease of obtaining loan from this source and the less arduous and formal procedures involved in processing this loan and the collateral requirements. SACCOs provides important savings, credit, insurance, and social security services to the poor. However, the weakness of this sector appear to be the lack of medium-and long-term loans for production and technology adoption and the lack of monetary savings options with real returns. Moreover, informal arrangements are often restricted to the community or district levels, and therefore may be seriously limited in

their ability to pool covariate risks across regions and to mobilize capital and allocate it to different regions and economic sectors. This directly or indirectly impacts on the attainment of food security in most of these developing countries. On the part of the borrower, the risk of non-repayment of loan is very high because of the familiarity involved and this further limits the amount of loan disbursed from these sources. SACCOs has very important roles to play towards the attainment of food security. This is due to the fact that increased agricultural production (a precursor to food security) is only achievable when there is availability of credit to enhance increased production from subsistence agriculture to large scale agriculture. These and many more underscore the important role that SACCO play in ensuring food security.

2.5 Role of cooperative in thrift and savings promotion

According to Galor (1095) a credit cooperative (also known as thrift and credit cooperative or thrift and loan cooperative) is a cooperative financial institution established to promote thrift and provide credit to members. It is member-owned and controlled through a management committee or board of directors elected by the membership. The primary purpose in furthering their goal of service is to encourage members to save money. Another purpose is to offer loans to members. In fact, credit cooperatives have traditionally made loans to people of ordinary means. Credit cooperatives can charge lower rates for loans (as well as pay higher interests on savings) because they do not aim to maximize profits. Rather than sharing profits to members, credit cooperatives return earnings to members in the form of patronage dividends or improved services (See Nwobi 2006, Umebali 2001, Onuoha 1978). Galor (1989) writes that credit cooperative encourages its members to save money and

enables them to obtain loans they may require for various purposes from their accumulated savings. Thus the first of the cooperative is to enable members to save their money on a regular basis, or according to their needs. The member saves his/her money within the framework of the cooperative, knowing that he/she will receive a suitable return for his effort, in the form of interest on his savings in addition to other benefits. Credit cooperatives thus fill a unique role of mobilizing savings from the lower to middle wealth segments of the population and channeling them to a similar class of borrowers in the form of loans for investment and consumption. Therefore credit cooperative by its nature especially through the practices of obligatory savings contributions, teaches the member to be thrifty thereby influencing their savings habits.

2.6 The need for Micro credit

Credit is the key input in every development program; this is particularly true for rural development because so long as sufficient credit is not provided to the development programs of poor sections of the society, the goal of development cannot be achieved. Access to capital in the form of either accumulated savings or a capital market is necessary in financing the adoption of many new agricultural technologies. Several authors Adams and Graham (1981), FAO (1996), Gonzalez-Vega (1977) and Pischke (1980) have underlined the importance of credit facilities to smallholders of less developed countries. Governments of less developed countries and aid agencies have extended a large amount of money in the form of agricultural loans. The motivation has been the belief that loans are an essential part of various input packages that are prescribed as part of agricultural investment projects designed to introduce modern technologies and thus stimulate change and growth in agriculture.

Kumar *et al.* (1987) indicated that the need for credit in the case of majority of cultivators arises from inadequate savings to finance various activities on their farm. Moreover, while their income accrues during limited period of the year, their expenses are spread throughout the year. This implies that expenditure on inputs have to be incurred much in advance of the income from resulting outputs. Producers meet these expenditures out of their past savings; and when these savings fall short of the requirement, they borrow.

Studies undertaken in Ethiopia show that credit provision to small farmers increases their productivity and improves their standard of living. For instance, Assefa (1987) reported the need for the expansion of rural credit to all areas of the country. Likewise, Berhanu (1993) and Getachew (1993) pointed out the need for agricultural credit to increase productivity and accelerate adoption rates. Because of high population pressure in rural areas of developing countries like Ethiopia, bringing of additional productive land under cultivation is difficult, implying the need for improving farm level productivity through intensification. This involves the use of improved farm inputs such as fertilizers and selected seeds besides improved tillage and husbandry practices. These inputs are not available on the farm and some farmers are not able to purchase them due to their meager resources. Moreover, most of the commercial inputs are expensive and hence smallholder farmers cannot afford to buy them from their own cash earnings. It is, therefore, generally acknowledged that rural credit can improve smallholder's farm productivity through use of purchased farm inputs. Generally, credit

removes a financial constraint and helps accelerate the use of new technologies, increases productivity, and improves national and personal incomes. In addition, it constitutes an integral part of the process of commercialization of the rural economy and a convenient means of redressing rural poverty (MOA, 1995).

2.7 Lending and Investment Services in SACCO

The more savings are accumulated the more capacity for larger loans opens. As members establish history and demonstrated cash flow, they gain access to larger loans based on their repayment capacity. Prudent lending or investing of members' savings is the key for success and sustainability of any financial institution. Lending is the major service that a SACCO provides to its members. This essential service is the responsibility of management and a credit committee. The key to lending is having a well-planned lending policy with all the necessary forms and documents (Tsegaye, 2003). With its community-based membership, SACCOs are able to protect the long-term sustainability of their institution by diversifying the risk of the loan portfolio. SACCOs provide loans to members engaged in many areas of economic activities such as agriculture, dairy farming, trading, light manufacturing, input Purchasing etc. Thus, the failure of several farmers' crops or falling prices does not affect all sources of loan repayment and income. The SACCO overcomes the crisis and continues to serve its members in future years (Tsegaye, 2003).

2.8 Empirical Evidence

2.8.1 Role of Micro credit on Poverty

A number of studies have found that access to microfinance services decreases the incidence of poverty. Dunn and Arbuckle (2001) find that only 28 percent of microfinance clients in Lima, Peru live below the poverty line compared to 41 percent of non-clients. Khandker (2005) also finds positive effects on poverty rates. He finds that between 1991/92 and 1998/99, moderate poverty in all villages declined by 17 percentage points: 18 points in areas where Grameen Bank or BRAC was active, and 13 points in non-program areas. Among program participants who had been members since 1991/92, poverty rates declined by more than 20 percent about 3 percentage points per year. Khandker estimates that more than half of this 34 reduction is directly attributable to microfinance, and finds the impact to be greater for extreme poverty than moderate poverty. Khandker further calculates that microfinance programs reduce average village poverty level by one percentage point each year in program areas. Microfinance thus helps not only poor participants but also the local economy. Overall, Khandker finds that microfinance accounts for 40 percent of the entire reduction of moderate poverty in rural Bangladesh.

2.8.2 Role of micro credit on Quality of Housing

Considering the difficulty in obtaining other measures of welfare, such as income or even expenditure, in the majority of developing countries, the quality of housing is often used as a proxy for a household's socio-economic status. Overall, the literature suggests a positive impact of microfinance program participation on both the quality of housing as well as the level of investment. Hossain (1988), who compares Grameen

Bank members to both eligible non-participants in Grameen villages and target non-participants in comparison village, finds that members spend six times more on housing investments than non-members.

Neponen (2003), who uses a control group of new members to avoid selection bias while monitoring the performance of microfinance program participants in Trihcirappalli, India, finds that members of the microfinance program live in much higher quality housing. Sixty-four percent of members live in tile roof and concrete houses, which is considered to be the highest quality material available, compared to only 50 percent of new members (the balance live in mud and thatch houses).

2.8.3 Role of Micro credit on Nutrition and Health

Households of microfinance clients, particularly those of female clients, appear to have better nutrition and health statuses compared to non-client households (Pronyk et al. 2007; Littlefield et al. 2003; Hossain 1988). Pitt et al. (2003) find that women's credit has a large and statistically significant impact on two of three measures of children's health. A 10 percent increase in credit provided to females increases the arm circumference of their daughters by 6.3 percent – twice the increase that would be expected from a proportionately similar increase in credit provided to men. Female credit also has a significant and positive, but somewhat smaller effect on the arm circumference of sons. Female credit is estimated to have large, positive and statistically significant effects on the height-for-age of both boys and girls. However, no statistically significant effects are found for body mass index (BMI) of boys or girls.

Barnes (2001) finds that participation in Zambuko Trust in Zimbabwe has a positive impact on the frequency with which food is consumed in extremely poor households as well as on the quality of food. Specifically, participation has led to a positive impact on the consumption of high protein foods (meat, fish, chicken and milk). McNelly and Dunford (1999) also find that children of participants of the Lower Pra Rural Bank Credit program in Ghana experience significant improvements in feeding frequency compared to children of non-clients. However, positive impacts on the nutritional status of clients of the CRECER Credit program in Bolivia and their children are not evident. Deeper analysis of the client group alone, however, reveals that children's weight-for-age is positively related with the quality of education services provided. This finding suggests that without important improvements in caregiver practices, increases in income and even empowerment are unlikely to bring about marked improvement in children's nutritional status.

Chapter 3: Methodology

3.1 Description of the study are

3.1.1 Location of the study area

This study was conducted in Sire District which is located between 7°49'35"N-8°12'14"N latitude and 39°20'14"E- 39°33'14"E longitude. It shares boundary line with East Shewa zone in the north, Jaju district in the east and south east, Diksis district in the south, Lode Hetosa district in the south west and Dodota district in the West. The total area of the district is 474.2 Km² (2.26% of the total area of the Arsi Zone). Continuous effect of faulting and folding causes the formation of the present land form of the district. Following the formation of Rift valley Volcanism activity causes the present land form to be formed. It's western, north and east central part, northern Eastern and north –eastern part is covered by Nazerate series. The southern and south eastern part is covered by lower part Chilalo formation while its central pocket areas between Nazerate series is covered by Mursi and Bofa basalts. All the formation was formed during Cenozoic era of quaternary period. The study was conducted at village levels where there are SACCO operations. The district has 15 SACCO groups that have a total member of 2,969 (964 male and 2,005 female) with a capital of 6,857.022 Birr and 3 MFI actively involved in saving and credit activities (SDFEDO, 2012). Among these OSCCSO, MMFI and MeMFI are Microfinance institute that carry out saving and credit activities in the district (SDCOO, 2012).

Sire has an estimated population of 94,995 (Male 48,502, Female 46,493) according to the 2007 Housing Population Census with an annual growth rate of 2.6% (CSA, 2007).

The urban population was 9,942 (Male 5,250, and Female 4,692) while rural population accounted about 85,053 (Male 43,252, Female 41,799).

3.1.2 Livelihoods in the Research Area

The major economic activity in the district is farming, both commercial and subsistence. Apart from agriculture, there is a commercial sector including retail services. Food insecurity is one of the major problems faced by the district in Pas located in arid area (WADO, 2013). Sire has a total farming area of about 25,077 hectares and the major annual crops grown in the district are cereals, pulses and oil seeds. Among the cereal crops, wheat, teff, barley and maize are the most widely grown crops in the district. Wheat production occupies 9368.5 hectares of the cultivated area followed by Teff (5781 hectares) and maize (2207 hectares)(SDFEDO, 2012). Cattle, goats, sheep, horses, mules, donkeys and camels are the major type of livestock rearing in the district. The estimated total livestock was 196,403 in the district, comprising cattle, sheep and goats accounting to about 77,206, 365,584, and 27,206, respectively. During the year 2005, cattle occupied the highest share of the livestock found in the district (SDFEDO, 2012).

The district is characterized by undulating plain of low land, hill and high plateau with an altitude ranges from less than 1000 to 2500 Meters above sea level. Its elevation reduces from south east to west and northwest (to the Rift Valley). Due to its altitudinal location, the climatic condition of the district is dominantly characterized by moderately cool air condition which ranges between 15^{0c}- 20^{0c}. The remaining type are cool and moderately warm having temperature ranges between 10^{0c}-15^{0c} and 20^{0c}-25^{0c}, respectively. The annual rainfall of the district ranges from 800mm-1200mm and

the average rainy days are 115 days in the year. The rainfall pattern is bimodal, which are short rainy season (Belg season) from February to May and summer long rainy season (Meher season) from June to September (SDFEDO, 2012).

The major soil types include Eutric cambisols, pellic vertisols, Dystric Nitosols, Lithosols and Eutric Fluvisols etc. Their fertility status is very good. However, rapid erosion due to high rate of deforestation is one of the major problems of the district. Regarding Vegetation types found in the district, different species of Accacia trees are the dominant type of vegetation. In addition different broad leaf forest and gallery forests are found in the pocket areas of the district (SDFEDO, 2012)

3.2 Sampling Designs, Data Collection Mechanisms and Method of Analysis

3.2.1 Data source

The primary data for the study were generated through three main tools: key informant interviews, focus group discussions and household surveys.

- I. Key informant interviews were carried out to obtain information on community profile, food security situation of the woreda and the importance of SACCOs regarding to improving the socio-economic status of the community as a whole. The informants included cooperative leaders, Development Agents working at the study sites and Peasant Administration (PA) Officials.

- II. Focus group discussions were conducted in the study communities. The participants involved in the study were representatives of cooperatives. The participants of focus group discussion include various villages of the communities, households of different economic strata and both sexes to maintain gender balance. The participants were expressing their own feelings (perceptions), and offer their experiences regarding the issues under study.
- III. Household sample survey was generated both qualitative and quantitative information pertaining to the social, demographic and economic characteristics of the households. Information on the importance of cooperatives, the role of cooperatives on their food security and food security indicators were collected through the survey. For this purpose, questionnaire (a combination of open-ended and close-ended) were designed and pre-tested before the actual survey. The researcher and trained field assistants had carried out the face-to-face interview with 120 sample households at three selected sites. Six Pas were selected for household survey and 20 households were randomly selected from the six selected Pas from registration books at each site. About 30% of the sample households were female.
- IV. For the data collection, five enumerators were recruited from the study area and they were trained by the researcher. Five of them were diploma

holders. The enumerators had collected the required data under a closed supervision of the researcher.

V. The Population and Housing Census reports were the secondary sources for the demographic socio-economic characteristics of the population of the district. Supplementary data were gathered through discussions with governmental authorities who were directly or indirectly dealing with cooperative and food security. Specifically, the district administrators, the district Agriculture Office and cooperative coordination office were consulted.

3.2.2 Method of Analysis

After collecting the data, both descriptive statistics and econometric tools were employed so as to investigate the impact of saving and credit on improving food security of the clients. From the statistical tools, Chi Square analysis was used to investigate the difference in income between the borrowers. A summary of statistics and tabulation of field data was used to examine the impact of SACCOs towards improving the food security of members. The cross tabulations could highlight differences in the mean values of the hypothesized impact variables between borrowers. In addition to descriptive statistics, Logistic Regression Model was used to investigate the factors for the increase in welfare indicators such as income. But to measure some psychological impacts, mean values were considered. In the regression model, the status of income was treated as a dichotomous dependent variable by taking

1 for increase and 0 otherwise. The functional relationship between the probability of improvement in income and consumption explanatory variables is specified as follows:

$$Y=f(X_i, U_i)------(1)$$

Where: Y=Average yearly income of respondents

X_i=is a vector of explanatory variables that include: type of the respondents, oxen ownership of the respondents, land size, sex of the household head, age of the household head, education of the household head, family size.

Since the dependent variable is dichotomous, Logistic Regression Model was used as suggested by several studies for its manageability, simplicity and appropriateness (Maddala, 1983). While specifying the distribution of the model, the steps followed by Gujarati (1992) were considered, as shown below:

P_i=probability of improvement in income/ or other variables considered in the study in relation to the explanatory variables (such as improvement in housing)

e^{z_i}=irrational number to the power of z_i

z_i= A function of n explanatory variables

β_s=explanatory variables

CHAPTER 4: RESULTS AND DISCUSSION

4.1 Background characteristics of respondents

4.1.1 Sex Distribution of respondents

Among the respondents, 59.2 percent of them were Males and females constituted the remaining 40.8 percent. This shows that some sense of gender balance in SACCO was established in Sire district (Table 1).

Table 1: Sex Distribution of Respondents

Sex distribution	Frequency	Percent	Valid Percent	Cumulative Percent
Male	71	59.2	59.2	59.2
Female	49	40.8	40.8	100.0
Total	120	100.0	100.0	

Source: Own study

4.1.2 Age distribution of respondents

With regard to age, 40.0 percent of SACCO member respondents were in the age group of 26-35 years, 22.5 percent was in the age group of 36-44 and 20.0 percent was in the age group of 45- 54 years. Totally the age groups of 26-54 constitute 82.5 percent of the respondents, 17.5 percent were in the age group of 55 years and above (Table 2).

Table 2: Age Distribution of the respondents:

Age Group	Frequency	Percent	Valid Percent	Cumulative Percent
26-35	48	40.0	40.0	40.0
36-44	27	22.5	22.5	62.5
45-54	24	20.0	20.0	82.5
55-64	19	15.8	15.8	98.3
65-74	2	1.7	1.7	100.0
Total	120	100.0	100.0	

Source: Own survey

This distribution shows that Sire SACCO was in favor of people who are in the age group of 26-54, this is because they were seen as having many responsibilities, being energetic and having capacity to utilize the funds provided to them and thus able to use the funds profitably and being able to pay back the loans. The adolescents in the age group of 18-24 were not included in the SACCO as they are usually seen as not being serious and stable while the elderly are usually weak and not able to utilize the funds given to them.

4.1.3 Distribution of respondents by marital status

Most of respondents, 87.5%, were married, 11.7% were widowed, and 0.8% were divorced, while no single (unmarried) respondent was found in the sample survey (Table 3).

Table 3: Marital Status of Respondents

Marital status	Frequency	Percent	Valid Percent	Cumulative Percent
Married	105	87.5	87.5	87.5
Divorce	1	0.8	0.8	88.3
Widowed	14	11.7	11.7	100.0
Total	120	100.0	100.0	

Source: Own survey

This shows that the SACCO membership favor married households, because they pose limited risk in that if a husband/wife defaults, the spouse becomes liable. Widows were also favored because of the sympathy the community shows to them as they are bread winners for their families. Those who were single were less favored because they are viewed as unstable while the divorced ones are taken as untrustworthy and unable to control funds.

4.1.4 **Distribution of respondents by level of education**

The majority of respondents had attained first and second level primary education, i.e., 25% and 34.2%, respectively (Table 4).

Table 4: Level of Education of Respondents

Level of Educational	Frequency	Percent	Valid Percent	Cumulative Percent
Never attended school	10	8.3	8.3	8.3
Had Adult Education	27	22.5	22.5	30.8
Primary education (1-4)	30	25.0	25.0	55.8
Primary Education (5-8)	41	34.2	34.2	90.0
Secondary Education(9-10)	11	9.2	9.2	99.2
Technical/Vocational	1	.8	.8	100.0
Total	120	100.0	100.0	

Source: Own survey

This result shows that the majority had knowledge that helps them to manage and utilize the funds effectively, but the 8.3% none educated group were likely to have a gap to manage and utilize their fund properly.

4.1.5 Distribution of respondents by occupation

When it comes to type of occupation they were engaged in, the majority of respondents (64.2%) were fully involved only in crop production and 18.4% both crop production and small business. Mixed farming and handcraft had occupied 15.8% and 1.7%, respectively (Table 5).

Table 5: Respondents Occupation

Respondents Occupation	Frequency	Percent	Valid Percent	Cumulative Percent
Crop Production	77	64.2	64.2	64.2
Crop Production with petty trade	22	18.4	18.4	82.5
Mixed Farm	19	15.8	15.8	98.3
Handcraft	2	1.7	1.7	100.0
Total	120	100.0	100.0	

Resource: own Survey

This Survey implies that SACCO was mainly occupied with crop production and this may be due to the fact that the livelihood of the area mostly based on crop production, rearing of livestock were reduced due to grazing land problem in the district.

4.2 Livelihood activities and income sources

4.2.1 Land holding

The land holding size of households varies. The majority (50%) had owned land size of one hectare and above, 23.3% had half hectare or less, 5.8 percent were landless (Table 6).

Table 6: SACCO Members Land holding Size

Land Size	Frequency	Percent	Valid Percent	Cumulative Percent
<0.5	28	23.3	23.3	23.3
0.5-1Ha	25	20.8	20.8	44.2
>1Ha	60	50.0	50.0	94.2
Land less	7	5.8	5.8	100.0
Total	120	100.0	100.0	

Source: own survey

This result has shown that half of the respondents produced crop below the required land holding size.

4.2.2 The Impact of SACCO in improvement of crop production and standards of living

The establishment of SACCO had an impact on improvement of crop production, as indicated by 60.8 percent of the respondents, even though 15.8% of the respondents stated that their production was decreased and 21.7% had shown no change in their production (Table7).

Table 7: Improvement in crop Production

Wheat harvest Change	Frequency	Percent	Valid Percent	Cumulative Percent
Increased	73	60.8	60.8	60.8
the same	26	21.7	21.7	82.5
Decreased	19	15.8	15.8	98.3
Not respond	2	1.7	1.7	100.0
Total	120	100.0	100.0	

Source: Own survey

With regard to the main reason for the improvement, 76.6% had stated that it was due to the credit support from SACCO. When asked about the credit disbursement, 20.8% of the respondents had used it to purchase fertilizer and improved seed, while 35% of respondents had used the credit for renting land and purchasing of fertilizer (Table 8).

Table 8: Reason for Improvement of Crop Production

Reason for change	Frequency	Percent	Valid Percent	Cumulative Percent
Purchasing of Improved seed and fertilizer with the support	25	20.8	20.8	20.8
Renting land and purchasing of fertilizer with the credit	42	35	35	55.8
Used New Production Technology	6	5.0	5.0	60.5
Water Stress	17	14.2	14.2	74.5
Input problem	2	1.7	1.7	76.6
Number of people not cropping	2	1.7	1.7	78.
Respondents with no change in their production	26	21.7	21.7	100.0
Total	120	100.0	100.0	

Source: Own survey

4.2.3 Onion production harvest change

SACCO had helped farmers of Sire district to increase their onion production for marketing. Among the beneficiaries, 51.7% of the respondents had increased their income by planting onion, while 21.7% had not seen any change in their income from onion planting, and a decrease in production for 9.2% of the respondents due to water stress problem (Table 9).

Table 9: Improvement in Onion Production

Harvest Change	Frequency	Percent	Valid Percent	Cumulative Percent
Increased	62	51.7	51.7	51.7
the same	26	21.7	21.7	73.3
Decreased	11	9.2	9.2	82.5
Not producing at all	21	17.5	17.5	100.0
Total	120	100.0	100.0	

Source: Own survey

According to respondents, the reason behind the improvement of onion production was due to renting of farming land and purchasing fertilizer and input with the credit that they received from SACCO or MFI (35%), and as a result of purchasing seed and fertilizers (16.7%) (Table10).

Table 10: Reason for Change of Income

Reason for the Change of Onion Production	Frequency	Percent	Valid Percent	Cumulative Percent
Purchasing of seed and fertilizer by the credit	20	16.7	16.7	16.7
Renting land and purchasing of fertilizer by the credit that provided SACCO or IMF	42	35	35	51.7
Used New Production Technology	1	0.8	0.8	52.5
Water Stress	15	12.5	12.5	65.0
Not changed	25	20.8	20.8	85.8
Not yet produced	17	14.2	14.2	100.0
Total	120	100.0	100.0	

Source: Own survey

4.3 Off-farm activities

4.3.1 Respondents participation on off-farm activities

Regarding involvement in off-farm activities, only 30.8% of the respondents had indicated that they had participated on off-farm activities, while the majority (69.2%) were not engaged in off-farm jobs (Table 11).

Table 11: Participation of Respondents on Off-farm Activities

Off-farm activities	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	37	30.8	30.8	30.8
No	83	69.2	69.2	100.0
Total	120	100.0	100.0	

Source: Own survey

The reason for involvement in off-farm activities were shortage of farm land (17.5%), to cover the additional fund requirement for farm operation (5.8%) and to expand the farm (2.5%) (Table 12).

Table 12: Reason for Start of Off-farm Activities

Reasons behind starting off-farm activities	Frequency	Percent	Valid Percent	Cumulative Percent
Respondent not attend Off farm activities	83	69.2	69.2	69.2
lack of land	21	17.5	17.5	86.7
Lack of land and cover cost related to farming	2	1.7	1.7	88.3
To cover cost related to farming activities	7	5.8	5.8	94.2
To buy fixed asset	2	1.7	1.7	95.8
To cover cost related to farming and buy fixed asset	2	1.7	1.7	97.5
In order to expand farming and other activities	3	2.5	2.5	100
Total	120	100	100	

Source: Own Survey

4.2.4 Supports of SACCO on off- farm activities

Among the respondents, only 20% had received start-up capital for their business from SACCO or MFI, 3.3% have got technical support, 1.7% of the respondents got training opportunity, but 1.7% claimed that SACCO has nothing to do with their businesses (Table 13).

Table 13: Contribution of SACCO on Off-farm Activities

SACCO Contribution on Off-farm Activities	Frequency	Percent	Valid Percent	Cumulative Percent
Not participated in off- farm activities	88	73.3	73.3	73.3
Provide start- up capital	24	20.0	20.0	93.3
Provide Technical support	4	3.3	3.3	96.7
Training	2	1.7	1.7	98.3
None	2	1.7	1.7	100.0
Total	120	100.0	100.0	

Source: Own survey

Due to these supports, 20% of the respondents had increased their income, 2.5% had improved their financial assets, and 3.3% had expanded their business (Table 14).

Table 14: Change due to Off-farm Activities

Change after the support	Frequency	Percent	Valid Percent	Cumulative Percent
Respondents not participated in off-farm activities	82	68.3	68.3	68.3
Our income improved	24	20.0	20.0	88.3
Insufficient startup capital and limited technical capacity	2	1.7	1.7	90.0
Financial management improved	3	2.5	2.5	92.5
My off- farm activities expanded	4	3.3	3.3	95.8
Done nothing so far	5	4.2	4.2	100.0
Total	120	100.0	100.0	

Source: Own survey

4.2.5 Change in the livelihood of the participants due to support of SACCO

Due to SACCCO support, 94% of respondents had reported that there was a change in their livelihood (Table 15).

Table 15: Role of SACCO on the wellbeing of the Participant

Change	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	113	94.2	94.2	94.2
No	7	5.8	5.8	100
Total	120	100	100	

Source: Own survey

When asked on the type of improvement they had in their livelihood, 13.3% of the respondents claimed that they were able to construct new houses, 5.0% bought a house in town, 21.7% had purchased livestock for breeding, 9.2% of the respondents were able to send their children to colleges and vocational school and 17.5 percent had increased their asset (Table 16).

Table 16: Change in Wellbeing of the Family

Change Observed	Frequency	Percent	Valid Percent	Cumulative Percent
Not build any asset	6	5	5	5
Construct new house	16	13.3	13.3	18.3
Construct new house and sending their children to school	7	5.8	5.8	24.2
Construct new house and buy livestock for breeding	6	5	5	29.2
Sending students to school	11	9.2	9.2	38.3
Buy new house in the town	3	2.5	2.5	40.8
buy new house in town and buy ox	2	1.7	1.7	42.5
Buy Livestock for breeding	26	21.7	21.7	64.2
Send student to school and buying cow for breeding	2	1.7	1.7	65.8
Buying cow for breeding and purchase productive asset	4	3.4	3.4	69.2
purchase productive asset	21	17.5	17.5	86.7
productive asset and land rent	2	1.7	1.7	88.3
Buying ox	6	5	5	93.3
Rent farming land for cropping and increase my income	5	4.2	4.2	97.5
stopped provision of farm land for share cropping	3	2.5	2.5	100
Total	120	100.2	100	

Source: Own survey

4.4 Change in Food consumption pattern

4.4.1 Change in Food Consumption from Own Crop Production

Food consumption pattern had changed due to SACCO support. According to respondents,

65.8% had claimed that the consumption pattern had improved (Table 17).

Table 17: Change in Food Consumption Pattern

consumption own crop production	Frequency	Percent	Valid Percent	Cumulative Percent
Increase	79	65.8	65.8	65.8
The same	36	30.0	30.0	95.8
Decreased	5	4.2	4.2	100.0
Total	120	100.0	100.0	

Source: Own Survey

4.4.2 Change in milk consumption

One of the parameters used to assess the changes in livelihood was the level of milk consumption within the family. According to respondents, 35% of them had stated that milk consumption of the family had increased while 52.5% had responded that the consumption level were the same and 12.5 percent claimed that milk consumption of the family were decreased. The decrease in consumption may be due to a decrease in the number of livestock holdings in the district as a result of dwindling grazing land in the area, because of area closure in the district (Table 18).

Table 18: Change in Milk Consumption

Change in milk consumption	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	0.8	0.8	0.8
Increase	41	34.2	34.2	35
The same	63	52.5	52.5	87.5
decreased	15	12.5	12.5	100
Total	120	100	100	

Source: Own survey

4.4.3 Change in Vegetable Consumption

Due to improvement of income of the household, 68.8% had responded that their family's vegetable consumption level had increased but 28.3% claimed of no change at all (Table 19).

Table 19 Change in Consumption of Vegetable

	Frequency	Percent	Valid Percent	Cumulative Percent
Increase	82	68.3	68.3	68.3
The same	34	28.3	28.3	96.7
decreased	4	3.3	3.3	100.0
Total	120	100.0	100.0	

Source: Own survey

4.5 Changes in income from Crop Production

4.5.1 Change in Income from Crop Production

The study had revealed that 14.2% of the respondents had earned better income from crop production, 70.8% had indicated of no change in their income from crop production while 14.2% of the respondents had claimed that their income from crop production has decreased (Table 20).

Table 20: Change in Income from Crop Production

Change of income	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	0.8	0.8	0.8
Increased	17	14.2	14.2	15
No change	85	70.8	70.8	85.8
Decreased	17	14.2	14.2	100
Total	120	100	100	

Source: Own survey

4.5.2 Changes of income from vegetable/onion production

Income from vegetable production had increased for 72.5% of respondents, while 25% had responded that the income from vegetable production had not shown any change after joining SACCO (Table 21).

Table 21: Change in Income from Vegetable Production

Change in income	Frequency	Percent	Valid Percent	Cumulative Percent
Increased	87	72.5	72.5	72.5
No change	30	25	25	97.5
Decreased	3	2.5	2.5	100
Total	120	100	100	

Source: Own Survey

4.6 Change in expenditure

4.6.1 Change in expenditure for health care

Overall, 69.2% of the respondents had claimed that their expenditure on health care had increased due to increase in their income. However, 30.8% had responded that their expenses on health care did not show any change (Table 22).

Table 22: Change in Expenditure for Health Care

Change of expenditure	Frequency	Percent	Valid Percent	Cumulative Percent
Increased	83	69.2	69.2	69.2
the same	37	30.8	30.8	100.0
Total	120	100.0	100.0	

Source: Own survey

4.6.2 Change in expenditure for Fertilizer and other inputs

Study findings had indicated that 80.0% of the respondents had claimed there was an increase of their expenditure to purchase fertilizer and other inputs, however, expenses on fertilizer had not changed for 19.2% of the respondents (Table 23).

Table 23: Change in Expenditure for Fertilizer and Other Inputs

Change in expenditure	Frequency	Percent	Valid Percent	Cumulative Percent
Increased	96	80.0	80.0	80.0
the same	23	19.2	19.2	99.2
Decreased	1	.8	.8	100.0
Total	120	100.0	100.0	

Source: Own survey

4.6.3 Availability of money for building of house

The majority of the respondents (75%) had stated that their income increase due to SACCO support was not sufficient to construct new houses, but 25 percent of the respondents had claimed that they were able to construct corrugated iron houses (Table 24).

Table 24: Money Increase for Building a house

Money availability	Frequency	Percent	Valid Percent	Cumulative Percent
Increased	30	25.0	25.0	25.8
the same	90	75.0	75.0	100.0
Total	120	100.0	100.0	

Source: Own survey

4.7 Credit availability to SACCO members

4.7.1 Amount of credit disbursed to SACCO members

The findings of the study had shown that the majority, 37.5% and 31.7% of SACCO clients, had received credit from Birr 3,001 to 4,000 and 4,001 to 5,000, respectively. The maximum amount of credit (Birr 5,000 to 6,000) was received only by 10.8% of the clients, while the minimum amount of credit (Birr 1,000 to 2,000) were received only by 5.0% of SACCO clients (Table 25).

Table 25: Amount of Credit Received by SACCO Clients

Amount of credit received	Frequency	Percent	Valid Percent	Cumulative Percent
1,000-2000	6	5.0	5.0	5.0
2001-3,000	18	15.0	15.0	20.0
3001-4,000	38	31.7	31.7	51.7
4,001-5,000	45	37.5	37.5	89.2
5,001-6,000	13	10.8	10.8	100.0
Total	120	100.0	100.0	

Source: Own Survey

4.7.2 Clients response on the adequacy of the amount of credit received

According to the result obtained from the study, 85.8% of the clients had claimed that the credit they received from SACCO or MFI was not enough to do their work effectively. Only 14.2% of the clients were satisfied with the amount they received (Table 26).

Table 26: Clients Response on the Adequacy of Credit

Respond	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	17	14.2	14.2	14.2
No	103	85.8	85.8	100.0
Total	120	100.0	100.0	

Source: Own Survey

4.7.3 Provision of training to SACCO members

Most of respondents, 87.5%, had asserted that they had not received any training from SACCO or local government bodies. Only 18.3% had some type of training (Table 27).

Table 27: Provision of Training to SACCO Members

Training provided	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	22	18.3	18.3	18.3
No	98	81.7	81.7	100.0
Total	120	100.0	100.0	

Source: Own Survey

This implies that SACCO or concerned local government bodies had not provided the necessary training to SACCO members in order to be able to use the loans efficiently and effectively for the sake of improving their income and their saving habit.

4.8 DISCUSSION

When one goes through the bulk of literature on the impact of microfinance, one can find quite different results, which are generally inconclusive. In some cases, microfinance is said to have brought positive impacts on the life of the clients. A growing database of empirical studies shows that microfinance has positive impacts to boost the ability of poor people to improve the conditions in which they live. Research works indicate that the poor have taken advantage of increased earnings to improve consumption levels, send their children to school, and build assets. Despite a few studies of the SACCO's performance, it shows that SACCO has an impact on increase of production and income, improve consumption levels, send their children to school, and build assets of the poor.

Allen and Hobane (2004) conclude that, in Zimbabwe, membership in a SACCO contributes to increase in household productive and non-productive asset levels among the majority of participants, as well as to some improvement in quality of housing. The findings also suggest that program participation has led to an increase in the number of income-generating activities (IGAs) and to increase in stability of such activities. Households also allocate more labor to IGAs. Furthermore, 81 percent of respondents feel that their status in community has improved. However, it is difficult to attribute these results to the interventions of the SACCOs alone. The study has no control or comparison group and relies on recall data for a period of four years, which may not yield accurate information, as people tend to forget what their status was four years ago.

However, Anyango (2005) reaches similar conclusions as Allen and Hobane (2004) when studying the SACCO program in Malawi. He finds that program participation has helped to improve the livelihoods of its members and to alleviate poverty, particularly for women who constitute the majority of the groups. Number and magnitude of economic activities has increased as a result of participation in the program. However, members have divested away from certain economic activities that require greater capital. The study also does not have a control group, although it does have a baseline.

There have been two major studies done on SACCO in Tanzania. The most extensive study is the Women's Empowerment Strategic Impact Inquiry (SII). The study incorporates a quantitative questionnaire, which was given to 181 women, including 134 SACCO members and 47 non-members. Baseline data was not available, but the authors attempt to address the problem by asking questions linking participation to changes in the impact variables, and requesting respondents to compare their current situation to their situation prior to joining SACCO group. The study finds, in terms of short-term economic empowerment, SACCO women benefit more than non-SACCO members from increased savings, more IGAs, greater food security and health, and increased education expenditures. Most SACCO women (75%) have increased their savings since joining SACCO group. SACCO women are more likely (68%) to be engaged in an IGA than non-SACCO women (13%), with most SACCO women reporting the SACCO group as the source of funds for their IGA. Furthermore, SACCO women's households experience greater food security compared to non-SACCO households. More SACCO households also report a great improvement in the quantity and quality of meals over the

last 3 years, compared to non-SACCO households. 34% of SACCO households report improved family health over the last three years compared to 22% of non-SACCO households. About twice as many SACCO households (57.3 %) as non-SACCO households (30.4%) report an improvement in the education status of family members over the past three years. A higher proportion of SACCO households (79.9%) have made expenditures on education over the last 12 months, than non-SACCO households (65.2 %).

The other major study in Tanzania, and the precursor to this study, was Anyango et al.'s (2006) examination of the performance of SACCO groups in Zanzibar. The study, however, does not have a baseline and does not use a control group. No tests of statistical significance were performed. The study finds that SACCOs in Zanzibar have performed well in terms of growth and sustainability. Total membership rose 258 percent from 2002 to 2006. They have also performed well in terms of profitability – during the last payout for all 25 groups, members received up to a 53 percent rate of return on savings. Respondents also name improved standard of living (22%), improved housing (21%) and increased income (20 percent) as three major changes as a result of participation in SACCO.

Khandker (1999) studied the impact of three micro credit institutions in Bangladesh on selected household levels. The study found that the most important effect of borrowing from a micro-credit program is its impact on per capita expenditure. The study also pointed out that the participation in group-based microfinance shows positive and significant impacts for school enrollment, asset holdings, consumption, nutritional status and household net worth of borrowers in all three programs.

Meehan (2000) made impact assessment on the performances of DECSI. The study was based on both primary and secondary data to analyze the impacts of the services of the institution. Respondents were asked to assess the impact of DECSI financial services on their household income. According to Meehan (2000), majority of respondents reported a considerable, a few reported relatively modest increases in their household income, few said there had been no change in their economic status and very few reported they were worse off. The result of the study stated that women were more likely to have taken on new activities and more likely to complain that the loan size was insufficient. Berhanu (1999), from his study of micro-credit and poverty alleviation in Ethiopia, identified that more than 70% of the respondents under his study reported the positive contribution towards employment creation, income generation, improved access to health and educational facilities as well as household nutrition. From the study Tsehay and Mengistu (2002) concluded that the credit and saving institutions intervention among poor women in Ethiopia has made some positive effects that made a difference on the socio-economic empowerment of the women clients.

CHAPTER 5: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

5.1.1 Savings and credit schemes

The study revealed that savings and credit scheme under SACCO was of importance to the rural people of ONRS of Sire district as it had helped people to increase production and income of members, and improving asset building. Organizing and supporting low income poor groups through SACCO had helped to improve their production, build savings practices, supporting small scale enterprises with subsidized loans to the extent that poor households were self employed, increased their income and improved their food security situation. The study also found that the existence of credit for the rural people have a significant impact on the extent of asset build up of the rural people.

5.1.2 Financial accessibility

The study also revealed that SACCO was a main source of loan for poor people in Sire district and had impacted and facilitated credit accessibility in charging affordable interest rates, making loan processing easy, giving favorable credit periods to its members, the member of SACCOs were accessed to credit twice a year and had helped them to run their business as well.

5.1.3 The relationship between savings and credit schemes and financial accessibility

The study identified that there is a strong positive relationship between savings and credit schemes and financial accessibility. This means that SACCO has a positive and great contribution on financial accessibility among the rural people of Sire district.

5.2 General conclusion

SACCO has played a vital role in the district through organizing the rural people and making it easy for them to access credit facilities which have changed the livelihood of the people positively. However, some loopholes were identified, for example, the vulnerable people, especially the aged, widowed and the divorced, who were less involved in the SACCO's activities. SACCO also favored less the adolescents who were landless and had no other job opportunity in the district. In order to maximize the impact of SACCO in rural development and improvement of income of the poor households the concerned bodies should work towards improving the saving habit of the clients, increment of credit level and the provision of training to the members.

The study concludes that the establishment of SACCO and intervention of MFI in the rural community has played a positive role on the increment of production and income, as well as, in the improvement of food security and decreased asset depletion in the rural setting of Sire District. SACCO has facilitated rural financial accessibility and their utilization in improving crop production in order to generate additional income to improve their standards of living.

5.3 Recommendations

The following recommendations were suggested:

- a. Findings of the study revealed that vulnerable people like households without land, the widowed, the elderly and adolescents were being less considered in SACCO activities. This calls for a joint effort to organize this group of people and make them accessible to credit scheme in order to improve their income sources.
- b. The study revealed that SACCO and responsible local government bodies had not provided training to SACCO members. The provision of training to members would facilitate their financial management and skill development. Lack of training would hinder the positive impact of SACCO on food security and rural development.
- c. Some members still did not know how to read and write. This calls for a need to have adult literacy education program.
- d. Some SACCO members, particularly the poorer ones, access to credit from OSCCSO may not be facilitated due to lack of trust from their peer groups. This calls for alternative means to access credit without peer group guarantee. .

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Annex 1: Household Survey questionnaires

i. General

1. Region----- Zone----- Woreda----- Kebele-----
----- Village

2. Household head Name-----

3. Marital status 1) single 2) Married 3)Divorced 3) wedowed

4. Sex----- 1 male 2 female

5. Religion-----1orthodox 2. Muslim 3 Protestant

6. Age -----

7. Family size-----

8. Livelihood type

1. Agro-pastoral 2)Crop production 3)mixed farm 4)Handcraft
4)Pity trading 5) Others:-----

9. Household Profile

1	2	3	4	5	6	7	
N o	Name	Sex 1.male 2.female	Age	Relation to head of HH	Level of Education	Labor Capacity	Current Occupation (ask to members age more than 7)
1							
2							
3							

4							
5							
6							
7							
8							
9							
1							
0							

Relation to head of HH	Level of Education	Labor Capacity	Current Occupation
1. Head of household	1. Never attend school	1. young child (too young to work)	1. Farming own land
2. Husband/wife/companion head	2. Adult education	2. working child (herding livestock; domestic chores; childcare; may be hired or fostered out)	2. Livestock husbandry
3. Son/daughter	3. Primary education (1-4 grades)	3. adult (able to do full adult workload)	3. Mixed farming
4. Married son or daughter with/without children	4. Primary education (5-8 grades)	4. working elderly (not able to do full adult workload)	4. Share cropping
5. Grand children	5. Secondary education (9-10 grades)	5. partially disabled (able to do light work only)	5. Work in other farm
6. Step children	6. Preparatory (11-12 th)	6. permanently unable to work (physically or mentally disabled, or non-working elderly)	6. Wage laborer
7. Father / mother of head or wife	7. Technical/Vocational certificate	7. chronically ill (unable to work for the past 3 months or more)	7. Casual employment
8. Brother / sister of head / wife	8. University degree/college diploma		8. Public work (Food and/or cash for work)
9. Other relative of head/ wife			9. Home based business (sales beverage and alcohol, food)
10. Adopted			10. Mobile Petty trade
11. Non-relative			11. Handicrafts
12. Domestic employee			12. Carpenter, wood work masonry, metal work
			13. Barberry, making braid
			14. No employment
			15. Retired
			16. Student
			17. Other specify_____

	Agricul tural produc es	Area covere d in ha Or/an d Numb er of plant	Type of inputs used	Annual Harves t Quintal /hectar e Quintal /Plant	Consumption Pattern			Income earn from sales (Put the price with the unit)	<i>The harvest increase d or decreas ed if your coopera tives to the last 2 years 1)yes 2 no</i>	<i>What is the reason behind for increas ed or decrea sed of the produc tion</i>
					Ho me	Give n away	Sol d			
1	Cereal Crops									
2	Pulses									
3	Oil seeds									

4	Spices									
5	Roots									
6	Fruits									
7	Vegetables									
8	Chat									
9	Others not specify									

*1)Provision of Improved seeds and fertilizers through the support of Cooperative 2) cropping additional land through renting 3) Renting farm land and purchasing of seed and fertilizer through cooperative support 4) used new production technology

5) working hard 6) water stress 7) input problem water stress It is new product 8)Other specify:-----*

I. Livelihood activity and income

10. Did you have farm land? 1. Yes 2. No(got to section iii Q7)
11. Land size
1. <0.5ha 2) 0.5-1Ha 3) >ha
12. Did you rent land by the support of cooperative loan 1) yes 2. No
13. Did you sell, rent out or sharecrop out any land in the last farming season?
1. Yes 2. No (go to section 2.2 Q1)
14. If yes, what are the reasons?
1. We need cash to buy food
 2. We need cash for family health service
 3. We have not ox
 4. Lack of labor force
 5. We need cash for schooling expense
 6. We need cash for social obligation (wedding, funeral service, religious ...)
 7. We have more land than we need
 8. We don't have enough labor to farm the land
 9. We don't have cash to buy seeds and other inputs
 10. We don't have access to a plough and oxen
 11. The land is poor quality
 12. Other reason specify_____

II. Livestock ownership and Production

15. Do you own livestock?
1. Yes 2. No (go to section2.4Q1)

Type of livestock	Currently	Before cooperative member	Reason for change*	Sold in last 12 months	Income earn from sales
Cow					
Ox					
Heifer					
Calf					
Sheep					
Goats					
Donkey					
Mule/Horse					
Poultry					

*1=Sold 2=bought 3) died 4) Breeding 5) gift (in) 6) gift out

III. Off farm activities

16. Did you or anyone from your family engage in off farm activity

1. Yes

2. No(go to Q14)

17. Who support you

1) cooperative

2) by you initiative

3)government(extension agent)

4)NGO

5) from the peer group

18. Do cooperative support to start off farm activities

1. Yes

2. No

19. If yes What is the contribution of Cooperative to start off farm activities
- 1)give start up capita 2) provide technical skill 3)training
4)technical support
20. List the most three off farm activates that you or anyone of your family engages in after as you are member of cooperative?
1. _____ 4. _____
2. _____
21. What are the reasons behind you start off farm activates?
1. Lack of land and reduce the farm size of household for farming practices
 2. Low productivity of agriculture
 3. To cover cost related to farming activities
 4. Initiated by cooperatives
 5. To expand farming and other activities
 6. Decline the income from agricultural activities to cover demand of household
 7. To cover cost related to farming activities (inputs, labour,
 8. To earn income in order to expand farming or other business activities
 9. Return for off farm activities is better than from agriculture
 10. It is less risky than agriculture
 11. To buy fixed asset
 12. Cooperative initiated me to start of farm activities
 13. Other specify _____
22. Do you participate in off farm activities at your maximum capacity 1. Yes 2. No

23. If no what are the factors that limit you to participate in off farm activities at your maximum capacity and/or upgrading the existing?
1. Low market demand
 2. Lack of skill
 3. Lack of raw materials
 4. Lack of start up and working capital
 5. Lack of support from cooperative and government
 6. High competition
 7. Limited time to engaged in off farm activities
 8. Lack of market facilities
 9. Other specify _____
24. If you no longer have the off farm business, why not?(*circle if multiple answer*)
1. Insufficient startup or working capital to make the business viable
 2. Market issue (lack of demand for product, seasonal demand, trouble getting product to market, quality issue. etc)
 3. Limited technical capacities
 4. Production and process is too complicated and require high cost
 5. Regulations Lack of technical support or knowledge
 6. Lack of confidence
 7. High competition
 8. Limited technical capacity to produce and supply base on quality and quantity require
 9. Limited time

10. Other specify_____

25. What are the changes you have achieved after the support?

1. Improved our income
2. Improved financial management
3. Expand my off-farm activities
4. Start new off-farm activities
5. Improve process of production
6. reduce the cost of production
7. Nothing done so far
8. Other specify_____

vi. Cooperative

26. How organizing the cooperative

- 1) Their own initiative 2) Local government initiative 3)NGO
4) Other specify -----

27. the cooperative have its own bylaw 1) yes 2) no

28. if yes the cooperative directed by the bylaw 1) yes 2) no

29. have you get any support from the Cooperative 1) yes 2) no

30. if yes what is the support

1. training 2) startup capital 3)technical support 4)market
facilities..... 5) other specify-----

31. do get skill training from cooperative or other organ 1)yes 2)no

32. Do you get credit or support from cooperative 1) yes 2) no

33. Do you receive credit regularly 1) yes 2) no (go to Q35)

34. If yes how many times you receive credit

- 1.... One time 2)Two times 3)Three rimes 4)Four times

35. What is the pre condition to get the loan

1. Trust from the cooperative 2) payback period 3) collateral
require 4) business plan 5) other specify:-----

36. What is the reason you receive credit from cooperative

1. Easy to access 2. Only have this sources in the area 3. Low
interest rate 4. Provide training for our profitability 5) Others specify-----

37. If no what is the reason

1. Limited resource that the cooperative have
2. Due to collateral
3. Management problem of the cooperative
4. Not pay back my loan
5. Not get grantees' from members
6. Political issues
7. return
8. Others specify-----

38. What is the amount you received in the last two years -----

39. Is it enough to run the business 1) yes 2) no

40. The management team of the cooperative give credit as per the bylaw of the
cooperative

- 1)yes 2)no

41. If no what is the reason
1. no responsible bodies for the loan
 2. They have technical problem
 3. They do the activities as they want
 4. They do not know very well the bylaw
 5. Political issues
 6. The IMF provide loan as per their own bylaw
 7. Other specify:-----
42. Do the cooperative carry out meeting with the member 1) yes 2). No
43. If yes how many times you carry out the meeting in a year
- 1..1 times 2) 2 times 3) 3 times 4) more than 3

vii. Changes after cooperative

44. As you are a member of saving and credit association is it improve your income
1. Yes 2. No (leave the Q below except 44)
45. If yes, what is the change you have in your life
- 1) Construct new houses 2) Sending students to school 3) Bay
new house in the town 4) buy livestock for breeding 5) Purchase productive assets 6)
rent land for cultivation 7) purchase ox 8)others specify:-----
46. If no what is the reason
- 1) I have not enough knowledge to improve my income
 - 2) Marketing problem in the area for the products,
 - 3) The credit I received not enough to run the business,
 - 4) I use the many for other social events (like wedding)

- 5) Not giving technical support
- 6) The association not working for us
- 7) It is collapsed
- 8) I use the money to pay back for the loan
- 9) Others specify-----

47. Food consumption per day per person before member of cooperative

- 1) One meal 2) two meal 3)three meal

48. Food consumption per day per person after member of cooperative

- 1) One meal 2)two meal 3) three meal

49. If there is a change what is the reason:-----

50. Change in sources of food (interview with women)

	Source of food	Before cooperative Quantify	After cooperative			Reason if it increase or decrease *(give answer from*)
			Increase	The same	decreased	
a	Own crop production					
2	Purchased crop					
3	Own milk/meat					
4	Own vegetable					
5	Own fruit					
6	Purchased of cereal					
7	Purchased of meat/milk					
8	Purchased of vegetable					
9	Purchased of fruit					
	Total					

*1) Adequate input provision from government 2) Increase production due the support from cooperative 3) increase income from off-farm activities 4)increase production through renting land by the support of cooperative 5) increase income due to the support 6) Buying breeding cow 7) Engaged in off farm activities by credit from cooperative 7) water stress 9)Other specify:-----

51. Change in source of cash

Ser. No.	Source of income	Before cooperative	After cooperative			Reasons for increase or decrease*(give answer from)
			Increase	The same	Decrease	
1	Sales of crop					
2	Sales of goat/sheep					
3	Sales of vegetable					
4	Sales of honey					
5	Sales of fire wood and charcoal					
6	Sales of handcraft					
7	Employment					
8	Peti trade					
9	Others (gift, loans, remittance)					
	Total					

N.B *1) improved our production through cooperative support 2) Increase the price of the product 3) cropping additional land through renting by the cooperative support 4) increase production through input support 5) Improved our skill through training to produced more 6)lack of grazing land 7) Lack of input 8)specify:-----

52. Change in many expenditure

Serial No	Type of expenditure	Before member of cooperative	After member of cooperative			Reasons for increase or decrease** (give answer from)
			Increase	The same	Decrease	
1.	Purchase of stable food					
2.	Purchase of salts, soap & kerosene					
3.	Health care					
4.	Cloth					
5.	School expense					
6.	Household items					
7.	Fertilizer					
8.	Veterinary drugs					
9.	Building houses					
10.	Asset building					
11.	Purchase of livestock					
12.	House construction					
13.	Others non essential items					
14.	Other specify -----					

1

53. Changes in children feeding

Se r. no	Type of food	Before member of Cooperative				After member of Cooperative			
		Daily	Weakly	Monthly	none	Daily	Weakly	Monthly	None
1	Cereal								
2	Milk								
3	Egg								
4	Meat								
5	Vegetable								
6	Fruit								

54. Reason for change of child feeding

1. Increase our production due to the support
2. \increase our income
3. Purchasing of breeding animal
4. Increased livestock number through breeding
5. Reduced livestock number due to grazing land problem
6. Improved level of awareness of the community on the importance of child feeding

55. Do you receive food aid from government or NGOs before cooperative?

1. Yes
2. No

56. If the answer is yes how many times you receive food aid

- 1) One time
- 2) two times
- 3) Three times
- 4) more than three

