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On

ANALYSIS OF THE ROLE OF COOPRATIVES IN AGRICULTURAL INPUTS SUPPLY: THE CASE OF OLONKOMI MULTIPURPOSE PRIMARY FARMERS' COOPRATIVE IN DENDI WOREDA, WEST SHOA ZONE, ETHIOPIA.

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DECLARATION

I hereby declare that the Dissertation entitled **ANALYSIS OF THE ROLE OF COOPRATIVES IN AGRICULTURAL INPUTS SUPPLY: THE CASE OF OLONKOMI MULTIPURPOSE PRIMARY FARMERS' COOPRATIVE IN DENDI WOREDA, WEST SHOA ZONE, ETHIOPIA** submitted by me for the partial fulfillment of the M.A. in Rural Development to Indira Gandhi National Open University, (IGNOU) New Delhi is my own 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 of this manuscript 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

This is to certify that **Mr. ALEMAYEHU LEMESSA BALCHA** student of M.A. (RD) from Indira Gandhi National Open University, New Delhi was working under my supervision and guidance for his Project Work for the Course MRDP – 001. His Project Work entitled **ANALYSIS OF THE ROLE OF COOPRATIVES IN AGRICULTURAL INPUTS SUPPLY: THE CASE OF OLONKOMI MULTIPURPOSE PRIMARY FARMERS' COOPRATIVE IN DENDI WOREDA, WEST SHOA ZONE, ETHIOPIA** which he is submitting, is his/her genuine and original work.

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ACRONYMS

CSA	Central Statistical Agency
DFID	Department for International Development
FGD	Focus Group Discussion
GSDRC	Governance and Social Development Resource Centre
ICA	International Cooperative Alliance
ILO	International Labor Organization
Km	Kilometer
Mm	Millimeter
OCDC	Overseas Cooperative Development Council
OMPFC	Olonkomi Multipurpose Primary Farmers' Cooperative
UN	United Nations

ABSTRACT

A cooperative may be defined as a member-controlled association for producing goods and services in which the participating members, individual farmers or households, share the risks and profits of a jointly established and owned economic enterprise. The objective of this study was to assess the contribution of Olonkomi Multipurpose Primary Farmers' Cooperative (OMPFC) in supplying different agricultural inputs. Both primary and secondary data were used for this study. Sampling were taken place with a combination of probability and non - probability sampling techniques. Household level surveyed questioners were analyzed through statistical package for social science (SPSS) after which it was put under interpretations. OMPFC has been contributing in improvement of agricultural production in farm community. Its contribution related with market stabilization; fertilizer and selected seed variety distribution; and adoption and dissemination of modern agricultural implements improved the access farmers had for agricultural inputs. However, the contribution of OMPFC would have been more than the current situation if it was supplemented with some arrangement to provide credit for the purchase of agricultural inputs at least for the cooperative member community. Therefore, OMPFC has been improved the access farmers have for agricultural inputs; but there shall be some arrangements to improve access to credit for this farmers in order to capacitate their purchasing power regarding this inputs.

Keywords: Cooperative, SPSS, and Agricultural Input

INTRODUCTION

A cooperative can be defined as a member-controlled association for producing goods and services in which the participating members, individual farmers or households, share the risks and profits of a jointly established and owned economic enterprise (Reitse, 2006). Agricultural co-operatives are forms of co-operatives formed by farmers or agriculturalists who have combined their resources together for the production and marketing of their produce and also getting some equipment and items to enhance the effectiveness of their production and marketing of the items with the hope of benefiting members financially and economically (Mai-Lafia, *et al*., 2009).

1.1 OLONKOMI MULTIPURPOSE PRIMARY FARMERS' COOPERATIVE

Olonkomi Multipurpose Primary Farmers' Cooperative (OMPFC) was founded during the '*Derg Regim'* in 1976. It was coined with this government by reasoning out the fact that the framers were found spread over geographically far apart areas in a sparsely populated manner which created difficulties in provision of services and construction of different infrastructure for these populations Veerakumaran (2007). The stated objectives of the cooperative were to collect the farmers at some central location to create favorable condition for providing different infrastructures and services. However, Reitse (2006) stated that the real feature of these state formed cooperatives throughout the country were characterized by organizing the peasants, controlling agricultural prices, levy taxes, and extending government control to the local level. Furthermore, these cooperatives were distinguished by mandatory membership, quotas for grain to be delivered to the government, and boards of directors and managers appointed by the ruling party. Farmers came to view these as a synonym for government oppression hence, with the

down fall of this government, the members were dispersed and most of them were moved and resettled at their original place.

With the new spirit of the Ethiopian Federal Democratic Republic, cooperative principle, cooperatives started to be established based on the common interest of the members. OMPFC re-established with almost all the former members that established it in 1976 and some new other ones in 1991 with a total member of 1235 households. From this total figure, 1106 and 129 were the sizes of members of male and female households respectively. Besides the effort of the members, the government was helping the cooperative through providing different agricultural inputs like fertilizer, insecticides, herbicides, and selected seeds in credits through agriculture and rural development office. But this support was ceased since 2010 due to bad history of the members on paying back the credit on time as sated on the focus group discussion (FGD). Hence, since then, OMPFC has been functioning with the resource pooled together from members only.

Currently it has 1843 members. From the total member, about 87% (1596) and 13% (247) are the number of male and female members respectively. The current objective of OMPFC include: distribution of agricultural inputs like (fertilizer, improved seeds, pesticides and insecticides); consumer goods like (sugar, salt, wheat, soap, corrugated iron sheet and edible oil,); grain marketing (teff, wheat, and chick pea); and distribution of semi-improved farm machineries like the plow, sickle, and insecticides and pesticides sprayers. Agricultural inputs, consumer goods and the machineries have been distributed to the members and non-members on the basis of payment in cash.

In addition to the committee elected from the members, OMPFC has five permanent salary based employs. These are two security guards to protect the resource of the cooperative, a person who is working within the shop as a sales person, a person to buy agricultural out puts products from the farmers, and an accountant. The committee is constituted from twelve members. It has five bodies who are the collector, deputy collector, member, secretary and a person who keep the money. Furthermore, other committees like supervision and job accomplishing committees were established and being functioning in OMPFC.

1.2 STATEMENT OF THE PROBLEM

Farmers get difficulties to get agricultural inputs so that they are not using the recommended quantity and quality in their production system. Like farmers in other parts within Ethiopia, Olonkomi farmers had low access regarding agricultural inputs. Previously agricultural inputs were supplied by agriculture and rural development office. Later, inputs have been supplied through the market. This was resulted in some problems among which: high increment in cost, lack of quality due to mixture with inert materials to get higher profit, low supply on the market during pick durations etc. In response to these problems Olonkomi Multipurpose Primary Farmers' Cooperative started to supply agricultural inputs both for member and non-member farmers. Like the others who were participated in the supply system, this cooperative may have its own weaknesses and strengths.

Therefore, the role this cooperative is contributing and some measures to be taken to improve accessibility to agricultural inputs shall be studied in detail so that based on the output recommendations their strengths shall get more stronger and the weaknesses shall be improved to increase the accessibility of agricultural inputs for all farm population in need of it around the study area.

1.3 OBJECTIVES

1.3.1 General Objective

- Assessing the contribution of Olonkomi Multipurpose Primary Farmers' Cooperative in supplying different agricultural inputs.

1.3.2 Specific Objectives

- Analyzing the contribution in supplying fertilizer in quality and quantity with judicious cost; and on time.
- Assessing the accessibility of selected seed varieties for farmers which have high demand by the farmers.
- Assessing the distribution of insecticides and pesticides for the community
- Assessing the contributions of this cooperative in delivering and adoption of new agricultural technologies/farm machineries.

2. LITERATURE REVIEW

2.1 COOPERATIVES IN ETHIOPIA

2.1.1 TRADITIONAL WAY OF COOPERATIVE

Cooperation among people has existed since history has been recorded. In Ethiopia, traditional forms of cooperation involved community members voluntarily participate in *'Edir', 'Ekub',* and *'Wonfel/Debo',* (Bezabih, 2009). According to Veerakumaran (2007), in Ethiopia there are three well known traditional cooperatives or self-help groups:

The first one is '*Edir*' which is one of the traditional forms of cooperatives still operating almost in all parts of Ethiopia, urban and rural. It is similar with burial cooperatives or organization that mainly stand for performing burial ceremonies, to condolence, and also to offer assist financially and labor with the deceased family member to overcome difficulties arise due to occurrence of death in members family. Almost the majority of the people, especially the heads of particular family are members' of Edir and also obliged to be a member in order to be assisted in case of death .The main objective for the establishment of Edir is to help a family in case of bereavement. Such a family requires personal, material and financial support from all of the Edir members based on the rules and regulations stated in the bylaw of the traditional society (Edir). If a member is going to get this assistance he/she has to fulfill the membership criteria set by the traditional society. Edir gets its legal personality from ministry of justice or regional justice bureau by paying registration fee. But most of them have their own bylaws which all the members think it is acceptable in front of the law in addition of which they do not have registered formality, especially in the vast rural part of the country. The member's participation is very high in Edir because its foundation is based on the willingness of each and every member.

The second type of traditional cooperative or traditional self-help group in Ethiopia is Ekub. It is a financial form of traditional cooperative formed on a voluntarily basis. It is a rotating saving and credit type association whose members make regular contributions to a revolving loan fund. The formation of '*ekub*'is based on classes of people who have identical (similar) earning or income. Unlike saving and credit cooperatives, it does not bear interest on the money saved (collected). The person who has got the money on his/her turn basis solves his immediate economic and social problem. Unlike saving and credit cooperatives, it does not bear interest on the money saved (collected). To minimize risk in an Ekub, personal guarantee should be given by payee to the traditional society when he/she takes taking the money from the Ekub members. Many people use this form of traditional cooperative as a means of financial solution to their economic problems. Ekub is somewhat similar to the modern saving and credit cooperatives. Therefore, there is a chance that this traditional form of cooperative could be changed into modern cooperative societies with some adjustments on their operation and making them to have legal bases. The amount of money which is now used for immediate problem solving could be changed into sustainable and continuous problem solving system of modern cooperative by convincing and promoting the Ekub members. This alleviates the temporary nature of Ekub.

*Debo/ Wenfal/ Lefenty:*is the third form of form of traditional cooperative in Ethiopia. It is a mutual help group. This is mainly a cooperative formed at the rural area of the different parts of the country where most of the people are farmers. Debo is a system of farmer's cooperation during the time of farming, weeding, harvesting, trashing, and house construction etc. Debo/Wenfale/Lefenty does not have a system of administration like the other form of associations; it is based on equivalent labour or material contribution by each farmer. It is a mechanism by which all farmers are helping each other on turn basis. Since each type of work is

being done in time, the productivity per farmer can be increased. Generally, these three traditional forms of associations which are the values and customs of our society should be brought to modern form of cooperatives so that they can contribute to the economic and social development of the people of Ethiopia.

Veerakumaran (2007) indicated some special features of traditional cooperatives in relation to modern cooperative as follows: establishment based on the felt needs of members and voluntary membership, democratic control and administration, fair and equal compensation, equal contribution, and equal participation of each member. In addition, it has other features like serving their members, participation on cultural and other development activities, political neutrality, equal opportunity to all members, they can be organized at working place, and living area bases.

Therefore, traditional form of cooperatives can be the bases for modern cooperatives. They can have management committee and serve on honorary base, have by-laws, different books of accounts, and have accounts in near-by banks, conduct annual meetings, election and even amend their by- laws.

These all forms of traditional cooperatives have advantages through: indigenous way of solving member's problems, no need of external experts assistance (to be established, formulate by-laws, keeping of books of accounts, managing employees etc.), being strong and autonomous, serve only members & high members' faith in their organization, strong participation of members since based on interest, management committees of Edir are loyal and corruption is a rare phenomena, Edirs participate in social and economic activities like assisting orphanage, constructing roads, schools, cleaning the surroundings, night guard of their localities, etc,

2.1.2 MODERN COOPERATIVES

Modern forms of cooperatives were first introduced in Ethiopia in 1960 (Veerakumaran, 2007; Bezabih, 2009). Veerakumaran, (2007), stated that in 1960, the first legislative called "Farm Workers Cooperatives Decree" was declared as Decree No.44/1960 with the objectives of accelerating the development of the agricultural sector economy of the country and proper establishment of cooperative enterprises.

The former Derg government (1975-1991) in Ethiopia established an extensive network of socialist agricultural cooperatives throughout the country to organise the peasants, control agricultural prices, levy taxes, and extend government control to the local level. These cooperatives were characterized by mandatory membership, quotas for grain to be delivered to the government, and boards of directors and managers appointed by the ruling party. Farmers came to view these as a synonym for government oppression. This cooperative system collapsed immediately following the government's overthrow in 1991 (Reitse, 2006).

Later on, transformation of state cooperatives into farmer controlled enterprises were takes place by the new Ethiopian government that came to power in 1991 after the overthrow of the socialist Derg government. This government embarked on an extensive programme of economic and political liberalization. These included steps to promote the development of democratic, free-market-oriented and professionally managed agricultural cooperatives (Reitse, 2006).

These initial efforts were followed by implementation of a 5-year cooperative development programme aimed at revitalization of Ethiopian cooperatives. Technical advice and training in cooperative organization, operation, and business management were provided to government officials, cooperative promoters, board members, managers and accountants. In addition to restructuring primary cooperatives, the programme also concentrated on establishing

professionally managed secondary level unions specialized in input supply, marketing and credit. The shareholders of these unions are primary cooperatives, so the unions are fully controlled by farmers. This programme has had a dramatic impact. Over 1,400 agricultural cooperatives throughout Ethiopia have been reoriented, restructured and legally registered. Fourteen cooperative unions have been established as agricultural cooperatives. Their shareholders are other agricultural cooperatives that take advantage of economies of scale. Cooperatives have become major players in agricultural input and output markets (Reitse, 2006).

2.2 COOPERATIVES AND RURAL DEVELOPMENT

Farmers' organizations such as farmers' unions, farmers' cooperatives, farmer groups and commodity associations, as well as rural finance institutions, can play a key role in the development of rural areas (Armando, 2009). Cooperatives contribute for the rural development in many aspects. The existences of co-operatives contribute to rural development in terms of availability and access to amenities that improve the basic conditions of life for the rural people (OCDC, 2007). These can be in employment creation, rural markets development, enhancement of rural incomes and the improvement of access to social services (UN 2005; UN, 2011). Moreover it enables small farmers to construct decent houses, send their children to school and provide health insurance to sustain rural livelihoods (Chambo, et al, 2007). Some of the contributions of cooperatives in rural development are discussed below:

Poverty reduction

Poverty impedes overall economic growth and, unless the constraints affecting the poor are addressed in developing countries, broad-based economic growth will not occur (OCDC, 2007). Cooperatives contribute directly to the eradication of poverty through the economic and social progress of their members and employees and indirectly through stimulating the economies and

enhancing the social fabric of the communities in which they operate (UN, 2005). More broadly, cooperatives facilitate the economic and social progress of their members, through self-help efforts and help in the fight against poverty. The benefits and employment generated by cooperatives enable their members to achieve economic security and prevent millions from falling into poverty. By helping to sustain income and employment opportunities, especially in remote areas where public and other private sector initiatives tend to be weak or absent, cooperatives contribute to generating sustainable livelihoods and to the overall development of the local communities in which they operate (UN, 2007).

Income and Employment Generation

Cooperatives help to create, improve and protect the income and employment opportunities of their members by pooling the limited individual resources of members to create business enterprises that enable them to participate in production, profit-sharing, cost-saving or risk-sharing activities. Cooperatives provide the opportunity for poor farmers to raise their incomes (Fatemeh, 2011). They seek to promote the economic as well as social well-being of individuals who may not otherwise be able to form businesses on their own. The economic added value of cooperatives arises from efficiencies gained in obtaining inputs and services, in utilizing resources and in marketing products or services, which would otherwise be difficult to obtain for individuals acting alone, especially when they are poor (UN, 2005). It is estimated that cooperatives employ more than 100 million people worldwide. Of this total, cooperatives in the United States, account for more than 2 million jobs; French and Italian cooperatives employ 1 million and 1.1 million people respectively; Brazilian cooperatives employ 274,000 individuals; Argentinean cooperatives are responsible for 290,000 jobs; and Colombian cooperatives employ

700,000 workers. In Kenya, 250,000 people are employed by cooperatives; in Indonesia, cooperatives provide approximately 300,000 jobs (UN, 2011).

Co-operatives help to create more equitable growth

Equitable resource distribution among citizens of a particular country is important in rural development. Co-operatives reduce inequality and promote equitable sharing of the costs and benefits of sustainable development (Michael, 2001). It can help through making markets work better for poor people by generating economies of scale, increasing access to information, and improving bargaining power. Co-operatives have over 800 million members and many operate in the informal sector where they can transform the survival activities of the poor into viable livelihoods. Co-operatives of scavengers (rag pickers/waste collectors) in India and Latin America have improved bargaining power with the authorities, leading to reduced harassment and increased incomes. Co-operative profits are re-invested in the business or shared with members so the rewards of enterprise are retained locally. Coalitions between the poor and not-so-poor in one co-operative can help improve the performance of the enterprise and reduce the poverty of its poorer members (DFID, 2010). Therefore cooperatives are very important actors for the reasonable sharing of resources from the development potential of a country. In the other hand, they can provide an opportunity for self determination and empowerment of poor people. They foster a culture of good citizenship and enable their members to have a voice and participate in a democratic process, thus having empowering development effects beyond their economic benefits (DFID, 2010).

Co-operatives expand poor people's access to financial services

These include credit savings and in some cases insurance and remittances. These services can support enterprise start-up and expansion; enable the risk taking that can lead to increased

profitability; and reduce vulnerability by allowing the poor to accrue savings, build assets and smooth out consumption. Co-operatives are active across the financial sector – from micro finance to mainstream banking. Co-operatives are one of the largest providers of micro finance services to the poor (DFID, 2010). This provides opportunity to strengthen the agricultural sector. Agricultural production generally is capital intensive and in developing countries, small scale farmers need to inject capital into agriculture to increase production. The critical role of credit in economic development has never been in doubt either directly or indirectly in building the capacity of the small-holder farmers in increased agricultural mechanization for household food security and poverty alleviation. With adequate supply of credit to farmers, the retarded agricultural sector will make progress because agricultural credit can stimulate the growth of agriculture, enhanced productivity and promotes market access to small scale farmers (Abdulquadri and Mohammed, 2011). Hence, opportunities to get money from different financial institutions improve farmers' capacity to invest more in their farm land so that they can easy improve their income.

Cooperatives Increase Access to Services

Co-operatives provide a range of services such as health care, housing, and utilities such as water and electricity. They have been successful in expanding access to water and electricity for poor people and reducing wastage from illegal diversion of utilities.

Co-operatives can help with conflict resolution, peace-building and social cohesion.

Where co-operatives bring together people of different religious, ethnic and political groups they can build trust and solidarity leading to greater social stability. Co-operatives have been found to contribute to recovery from conflict by fostering positive relations between ethnic groups previously in conflict and minimize the probability of its occurrences that may happen between

different people from different religion and ethnic group (DFID, 2010). Hence cooperatives are ways through which people come together and reach a consensus on different ideas so that smooth relationship will be developed among themselves.

Improve food security through Contributions to agricultural production and productivity

Agricultural cooperatives help in securing food security by giving incentives to small and subsistence farmers to contribute in food production. In addition, they can be significant economic players that contribute to rural economic growth (Fatemeh, 2011). These may be through economies of scale in obtaining training, credit for farm inputs, and arranging for irrigation, cooperatives enable the farmers to improve their productivities and raise output. With improved marketing, cooperatives enable the farmers to obtain better prices in the market place, giving them the right incentives to produce for surplus (UN, 2009). More specifically, agricultural cooperatives play an important role in food production and distribution, and in supporting long-term food security (GSDRC, 2011). Hence, Agricultural co-operatives are important organizations for sustaining food security and rural Development (Zeuli, *et al*. 2004).

2.3 IMPORTANCE OF AGRICULTURAL COOPERATIVE

The establishments of cooperatives are to address different human interests. Economic, social, and political factors are some of the main reasons for which people organize into cooperatives (Zeuli, *et al.* 2005). Agricultural co-operatives enable producers to realize some benefits which they could not otherwise achieve alone. Andrea, (2005) stated some of the reasons why producers form co-operative. These include the need to increase the bargaining capacity, to reduce cost, to achieve economies of scale, to increase profit, to improve product and service quality and the need to minimize risk and to obtain the needed products or services.

To improve bargaining power

Co-operatives can provide groups of producers with marketing power more comparable to that held by processors and other market players. They do this by gathering market information and sharing that information with their members or by acting as a bargaining agent on producers' behalf (Andrea, 2005). It also increases the productivity and incomes of small scale farmers by helping them collectively negotiate better prices for seeds, fertilizer, transport and storage. Furthermore, help farmers through expanding market access and capture more of the value chain - for example, by getting involved in processing activities. These in turn help farmer groups in order to they can help farmers move out of poverty, and co-operatives are one form that these groups can take. Hence, co-operatives are often the main channel through which smallholders access fair trade certification which guarantees a minimum price and extra funds for investment (DFID, 2010).

To reduce costs

Pooling capital and resources through co-op enterprises can enable producers to access services, such as marketing expertise, that they could otherwise not afford alone (Andrea, 2005).

To achieve economies of scale

By handling large volumes of product, co-operatives can reduce the per-unit cost of marketing and processing for producers. Similarly, the cost of inputs and services can also frequently be lowered if larger volumes are ordered through a central agency. Co-operatives allow producers to focus on producing goods, rather than on finding buyers and suppliers (Andrea, 2005).

To increase returns

Because the surpluses generated by co-operative businesses returns to producers on the basis of patronage, co-operatives allow producers to capture additional profits beyond the farm gate (Andrea, 2005).

To improve product and service quality

Co-operatives can allow producers to coordinate the timing of the delivery of commodities to markets. They can also enable producers to implement grading systems and standards. These activities can improve the services provided to retail and wholesale outlets and the quality of product available to consumers (Andrea, 2005).

To reduce risk

Agricultural commodity prices often fluctuate considerably throughout the year. Co-operatives allow farmers to pool their production with that of other farmers to minimize price and market risk (Andrea, 2005). By doing so, co-operatives have been responsible for developing modern markets in rural areas, where the co-operatives provide a ready market for farmers' crops but also absorb transaction costs (Holloway et al 1999), which would otherwise hinder small farmers from market and production integration.

To obtain needed products or services

Often producers require certain services or products which privately owned companies are reluctant to provide due to the small potential sales volume or uncertain profits. Such producers may join together to form a co-operative to assure the availability of vital products and services.

Agricultural co-operatives can allow farmers to address common problems, develop new market opportunities or expand existing markets. A co-operative can give producers access to a larger share of the earnings generated from business activities and can also keep these earnings circulating in the local economy. However, co-operatives are not a universal remedy—they require a group of individuals who are committed to working together to address a common economic goal or need. If this commitment is not there, a different business structure may be more suitable (Andrea, 2005).

2.4 CO-OPERATIVE VALUES AND PRINCIPLES

Cooperative Values

Co-operatives are based on the values of self-help, self-responsibility, democracy, equality, equity, and solidarity. In the tradition of their founders, cooperative members believe in the ethical values of honesty, openness, social responsibility, and caring for others.

Cooperative Principles

The co-operative principles are guidelines by which co-operatives put their values into practice (Michael, 2001). The most widely recognized contemporary set of cooperatives principles is that sanctioned by the International Cooperative Alliance (ICA). The ICA has adopted three formal statements of cooperatives, in 1937, 1966, and 1995. According to (Zeuli, *et al*. 2004; Michael, 2001and ILO, 2007) the seven principles of cooperatives and their intended meanings are:

One - Voluntary and Open Membership

Co-operatives are voluntary organizations; open to all persons able to use their services and willing to accept the responsibilities of membership, without gender, social, racial, political, or religious discrimination.

Cooperatives can only be viable if they are supported by their members and if they manage to attract new members. Every disappointed member dissatisfied with the services supplied by the cooperative or no longer needing the services of the cooperative must have the right to leave the cooperative. Otherwise such members could prejudice the future success of the cooperative. In other respects, this principle of free entry and exit does not mean that an unrestricted number of members can belong to any cooperative. In fact certain cooperatives can accept only a pre-determined number of members, depending on their capacity, notably worker cooperatives. The

underlying idea is that cooperatives are enterprises open to any individual, whatever his or her sex, social background, religion, etc.

Two - Democratic Member Control

Co-operatives are democratic organizations controlled by their members, who actively participate in setting their policies and making decisions. Men and women serving as elected representatives are accountable to the membership. In primary co-operatives, members have equal voting rights (one member, one vote) and co-operatives at other levels are also organised in a democratic manner.

In a business belonging to a group of individuals, it is generally impossible for all the members to manage the business jointly, especially if there are a high number of members. It is necessary to elect or appoint individuals and authorize them to serve the business as directors or managers. They will then act on behalf of the members and will represent the organization in its dealings with other bodies. There is no question at all of a loss of control by the members with regard to their business. They still have considerable power:

- To elect and dismiss their directors;
- To set and change the general aims of the cooperative;
- To monitor the performance of their agents (directors/managers) elected and appointed by them to act on their behalf.

All members of a cooperative have equal rights, whatever their spending power and financial holding in the cooperative business. The right of members to make decisions and monitor their directors is usually exercised in voting that takes place at the general meeting. The "one member, one vote" rule applies whatever the level of the cooperative. There are generally three levels. Primary (first-level) cooperative enterprises are cooperatives whose members are natural persons

only. The second-level cooperative enterprises have a membership of both natural persons and primary cooperatives. Finally, third-level cooperatives are those having as members at least one secondary cooperative. In some countries there are more than three levels. For example, it can happen that in some countries a given locality has its own cooperative federation, which is then represented at regional level by a confederation. As a result, at national level, a national council or a national league of cooperatives will be where the country's confederation(s) will be represented.

Three - Member Economic Participation

Members contribute equitably, and democratically control, the capital of their co-operative. At least part of that capital is usually the common property of the co-operative. Members usually receive limited compensation, if any, on capital subscribed as a condition of membership. Members allocate surpluses for any or all of the following purposes: developing their co-operative, possibly by setting up reserves, part of which at least would be indivisible; benefiting members in proportion to their transactions with the co-operative; and supporting other activities approved by the membership.

Cooperatives are enterprises run by their user-owners who constitute the dominant power of the cooperative. Within a cooperative, the cooperation of the members takes precedence over their contribution to capital. The role of capital is only to serve the interests of the members and to allow them to fund the activities of the cooperative. It is thus stripped of all powers:

- Voting rights in fact follow the rule of "one member, one vote";
- The distribution of surpluses as a reward for members' contribution to capital is expressly restricted.

Again, profit in the form of a surfeit of products over charges is called "surplus". It is either reinvested in the cooperative, or kept in reserve accounts, or else distributed to the members in proportion to their transactions with the cooperative. This procedure, called dividend, allows members to share out among themselves any possible surplus. One crucial point to be remembered here is that the main aim of a cooperative is to respond to its members' needs and not to make maximum profit, unlike capitalist enterprises. There is nothing wrong at all with having no surplus; on the contrary, the absence of a surplus can be a sign that the members have enjoyed the services of the cooperative at the lowest possible cost.

Four - Autonomy and Independence

Co-operatives are autonomous, self-help organizations controlled by their members. If they enter into agreements with other organizations, including governments, or raise capital from external sources, they do so on terms that ensure democratic control by their members and maintain their co-operative autonomy.

For decades in certain parts of the world, notably in transitional and developing countries, cooperatives have featured in development plans and political programmes as a development tool by the authorities, projects and development agencies. A large number of these facilities were "cooperative" in name only. They were characterized moreover by an almost compulsory membership or even the luring of members with insincere offers: grants, tax benefits, low-cost loans.

These pseudo-cooperatives were conceived for the most part with one goal only: to be used to carry out government plans. Such coops were unable to secure the active participation of their members in the running of the cooperative, nor a financial commitment from them. In 1995, the ICA introduced the fourth principle to highlight this experience. This fourth principle underlines

the fact that cooperatives can develop only if they are allowed the means with which to operate in accordance with their own rules and if they are free to pursue the objectives which they themselves have set.

Nonetheless, this principle in no way forbids cooperatives from working with governments or development agencies, but it is a reminder that it is crucial that they remain autonomous and independent.

Five - Education, Training, and Information

Co-operatives provide education and training for their members, elected representatives, managers, and employees so they can contribute effectively to the development of their co-operatives. They inform the general public—particularly young people and opinion leaders—about the nature and benefits of cooperation.

In a cooperative, the solidarity of the group is not based on family ties but on agreement. People wishing to join the cooperative and its members have to know their rights and their obligations in this organization. The members have to learn how to work together and relinquish their personal interests in favor of the group's interests. The directors of a cooperative will have great responsibilities and will be able to exercise real power. They have to learn how to use this power wisely and run a democratic commercial enterprise. The directors and managers of the cooperative must also be aware of their responsibilities towards the members.

Six - Co-operation among Co-operatives

Co-operatives serve their members most effectively and strengthen the cooperative movement by working together through local, national, regional, and international structures.

Pooling resources and gaining strength by working as an organized group is not only applicable to individuals but also to cooperatives. That is the idea behind this sixth principle. By working

with other cooperatives and creating secondary cooperatives (those whose members are cooperatives), the advantages of primary cooperatives, which are relatively small in size and close to their members, can be combined with the advantages of large-scale cooperatives, unions and federations: economies of scale, purchasing power, professional staff, working for the benefit of the affiliated primary cooperatives. It can also be interesting for the primary cooperatives to work together within the framework of their operations. In this way, a worker cooperative will see itself being granted a loan by a credit union, allowing it to buy the materials it needs for its products.

Seven - Concern for Community

Co-operatives work for the sustainable development of their communities through policies approved by their members.

Wherever they are, cooperatives live side by side with the community they belong to. They enjoy the benefits of the infrastructure, the services and amenities of the community. Consequently cooperatives have a responsibility towards these communities and cannot ignore their needs. Of course, it is up to the members to decide how much of the cooperative's resources they are willing to allocate to the development of the community in which the cooperative operates. This seventh cooperative principle of the ICA was newly added to the list of the Manchester principles in 1995 to counterbalance the sometimes "egoistic" tendency of self-help organizations. It must be left to the attention of the cooperative to decide how to use its resources.

These all principles are not really applicable to all the cooperatives. Some cooperatives exercise some of the principles while some are not giving due attention to the same principles but for the ones suite their cooperative type. However, almost all of the cooperatives are practicing the basic

three defining principles: user-ownership, user control, and proportional control of benefits (Zeuli, *et al*, 2004).

2.5 HOW DO CO-OPERATIVES DIFFER FROM OTHER BUSINESS STRUCTURES?

This is sometimes described as The Co-operative Difference. The key co-operative differences lie in its philosophy, purpose and structure (Graeme, 2001).

The philosophical difference (the user-owner principle)

A co-operative is owned by the users of the co-operative who benefit from their membership. This difference is expressed in the statement of co-operative principles adopted by the International Co-operative Alliance. The philosophy and practice of member ownership and control is fundamental, and those considering the co-operative option need to be convinced about the desirability and practicality of the co-operative way.

The purpose difference (the user-benefit principle)

The decision to form a co-operative must be based on a group of individuals and/or organisations who have a common need or problem, and a commitment to work together on a mutual basis to meet their need or address their problem. Co-operatives are service oriented and their only purpose is to meet needs and provide and distribute benefits to members based on their use.

The structural difference (the user-control principle)

The member-users control the business. A co-operative is democratic i.e. there is one vote per member, irrespective of their degree of use of, or the number of shares they hold in the cooperative. No one shareholder is permitted to hold more than 20% of the total issued share capital of a co-operative. Democracy may on occasions mean that important decisions need to be discussed with members and this requires time and resources, and may delay decisions. Generally however, the overseeing of management and direction setting is effected by a Board of

Directors elected by the members. Co-operatives democracy depends on the active involvement of its members.

2.6 TYPES OF COOPERATIVE

Cooperatives operate in all sectors of the economy and in some lines of business their influence is considerable. Given the great variety of sectors in which cooperatives operate, it is difficult to list them for each sector. Based on the principal objective of the members of a cooperative, cooperatives may be differentiated as either the members enjoy services to which they have so far not had access, or their goal is to get a job. Therefore, cooperatives may be divided into service and worker cooperatives under which there will be further classification (ILO, 2007).

Service Cooperatives

In these cooperatives, the members join together with a view to enjoy economic advantages by securing the goods and services they need to exist, to carry out their occupation or to run their business. Service cooperatives can be made up of natural persons or corporate bodies. Thus by coming together in a service cooperative, members maximize the effect of their own business. The cooperative then sometimes becomes an extension of the individual business by effectively acting as a network. Financial cooperatives, consumer cooperatives, housing cooperatives, producer cooperatives and marketing cooperatives are a few examples of service cooperatives.

Financial cooperatives

The term “financial cooperatives” covers credit unions and insurance cooperatives. This category of cooperative offers its members financial services such as savings and loans at favorable interest rates and insurance services.

Agricultural or farmers' cooperatives

Agricultural cooperatives help growers with the marketing of their harvest by obtaining consumer goods and farming input as well as helping with the management of farming credit. Farmers can also form a distribution cooperative to centralize and market farm produce. By reducing the number of middlemen, producers are in a position to conclude a much better deal with traders or can quite simply do without their services altogether and conclude a contract with any buyer they like.

Consumer Cooperatives

Consumer cooperatives' main object is to supply their members with goods and services for their personal use at the lowest cost. They are to be found in different sectors such as food, housing, educational goods and services, and leisure.

This type of cooperative has been used above all in the food sector both in developing countries struggling against insecurities of food supply and in industrialized countries in the grip of unstoppable rises in the cost of consumer goods. Thanks to consumer cooperatives, the member/consumer enjoys quality goods and services at minimum cost. Grain banks have also played a major role in the self-sufficiency in foodstuffs of several developing countries. These banks have a double function. On the one hand they supply people with food, and on the other they allow their members to secure enough money to let them buy produce from different regions. Members can be sure that their cooperative is listening to their needs because they take part in the decision making.

Housing cooperatives

A housing cooperative is made up of individuals who have come together to secure decent housing. Housing cooperatives are thus trying to respond to their members' needs regarding

access to affordable good quality housing, security of tenure and a safe community to live in. They offer the best possible service at an equitable price, the lowest possible.

In more practical terms, a housing cooperative is e.g. an ordinary block of flats, big or small, new or old - but always renovated - where the people who live are both tenants of their home and collectively owners of the block. This collective ownership does not involve a huge financial investment. As collective owners, the members, i.e. the residents of the block, jointly take upon themselves the entire management of their building and the cooperative itself. This collective management takes the form of democratic participation in meetings, plus an active contribution to the tasks needing to be done to ensure the successful operation of the cooperative. Thus each member exerts control over the quality of his environment. And since everyone participates in the management and maintenance of the building, the resulting operating costs are minimal for the cooperative. Therefore it is usually in a position to charge much lower rent than the market rate. Also, this involvement of everyone is explicitly recognized by several cooperatives which offer their members a "member's contract" comprising a reduction in the rent stated in the signed lease. Thus a resident who systematically refuses to carry out tasks could lose his status as a member and have to pay the rent set in the lease.

Advantages of the housing cooperative: a quality home at a good price, long term security of tenure, control of one's environment, involvement in the running of the cooperative. There are seven forms of housing cooperative (ILO, 2007):

1. Worker cooperatives organized by building workers either to create jobs within their enterprise or to provide services to other businesses;

2. Cooperatives of individually-owned houses formed by members looking for a home. They confer on their members individual title deeds or retain ownership of buildings and allocate flats to members with special rights of residence which can be passed on to their heirs;

3. Collective ownership cooperatives which build blocks of flats but do not give members title deeds. On the other hand the member is given the right of shared ownership of the building or group of buildings. This type of cooperatives has been very successful in the United States, especially in the city of New York;

4. Tenant cooperatives in which members are neither private owners nor coowners, but tenants who can participate with voting rights in the management of the buildings they live in and which are rented out by the society of which they are members;

5. Self-build cooperatives which are groups of people with a common housing problem who have decided to organize themselves in a cooperative way into a team of workers to build the houses they need;

6. Management cooperatives with the task of managing dwellings and organizing complementary services;

7. Cooperative building societies which provide mortgages of a certain percentage of the value of the house to be bought or built. Their funds come from shares subscribed by members and deposits made by these same members or by other people or institutions.

Public service provision cooperatives

It can sometimes be beneficial for the State and the consumer for a cooperative to take on the provision of services considered to be in the "public" interest like electricity or water supply, communication and transport. In developing and transitional countries for example, when the

State takes charge of these services, they are often badly run, costly and of bad quality. In developed countries, the State sometimes leaves the provision of such services to private companies. But these capitalist companies, out to make maximum profits, set prices which rarely reflect the quality of the service they sell. In practice, the provision of public services by cooperatives is not at all new. It has been happening for some years now in Argentina, Canada, the USA and Finland and is starting in a growing number of countries.

The cooperative form of organization possesses features that predispose to the supply of public services:

- The cooperative leaves the control of the service to its users and guarantees that the product or services meet the users' needs;
- The mandate of the cooperative is both social and economic. This corresponds to the main function of the public sector which is to balance socio-economic development with the best interests of the public;
- Through its democratic structure, the cooperative makes the service provider responsible for meeting the public's expectations.

Still it is important to stress that, bearing in mind the basic principles of a cooperative, if, in the area of public service provision, the cooperative supplies a service to a non-member, this is only consequential, the primary aim of a cooperative being to meet the needs of members, not non-members.

For example, a group of individuals can decide to form electricity cooperative in order to secure relief from the frequent power cuts affecting their town. Of course, the cooperative cannot serve only its members; nevertheless its primary aim being to meet the electricity supply needs of its members; it is by the "domino effect" that it will improve the living conditions of non-members.

It is interesting to note that there is no contradiction at all with the seventh cooperative principle of concern for community.

Shared services cooperatives or support services cooperatives

These are about the organization along cooperative lines of businesses wanting to benefit from certain services or activities that they have in common. In the image of a consumer cooperative, the aim is to obtain products and/or services at a lower price than the members (i.e. the businesses) would have had to pay individually. The services offered by these cooperatives range from supplying raw materials, marketing and distribution through to providing counseling services, by way of education and training.

Worker cooperatives

The main objective of worker cooperatives is to create jobs for members. There are two categories of worker cooperatives: producer cooperatives and labor cooperatives.

Producer cooperatives (Worker Owned Cooperatives)

In this type of cooperative members are both co-owners and employees of the cooperative whose aim is to produce goods and/or services. The employees together decide on the general direction and appoint their leaders (manager, administrators, etc.) They also decide how to divide up any surplus. Another novelty of this type of cooperative is that it allows for the takeover and restart of a bankrupt business. This option is one way of keeping going and developing the business and existing jobs. To restart a business as a producer cooperative is to enable employees to become players in the business, thanks to the participative style of management.

Labor cooperatives

Labor cooperatives are worker cooperatives whose members sell their labor and skills to other enterprises. They generally operate in the fields of packing and maintenance of highways and public buildings, etc.

3. METHODOLOGY

3.1 DESCRIPTION OF THE STUDY AREA

3.1.1 LOCATION

Dendi Woreda is located in West Shoa Zone of Oromia Regional State in Ethiopia. Its geographical extent ranges from 967373m North to 1014689m North in its south-north, and 380684m East to 427448m East in its west-east. It covers about 979 km^2. *Ginchi*, Dendi's woreda town, is founded at a distance of 35 kms and 90 kms far apart from Ambo and Addis Ababa respectively. It is founded on the main road from Addis Ababa to Western part of the country, *East and West Wollega.* Olonkomi is a minor town in Dendi woreda where Olonkomi Multipurpose Primary Farmers' Cooprative is located. It is 10kms and 80kms far apart from the woreda main town (*Ginchi*) and Addis Ababa respectively as indicated in Figure 1 below.

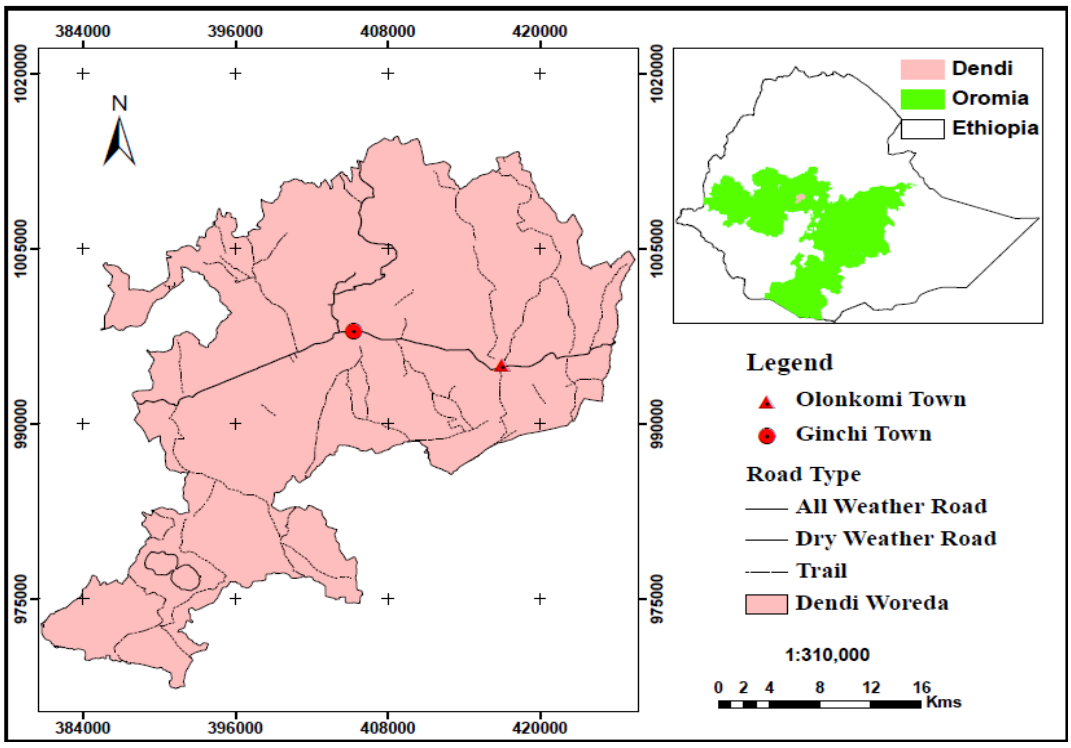


Figure 1. Map of the Study Area

3.1.2 DEMOGRAPHIC CHARACTERISTICS

According to the census carried out by Central Statistical Agency (CSA) 2007, the total population of Dendi woreda was 170,233 of which the number of male and female was 86,161 and 84,072 respectively. The total population who were residing in urban and rural areas was 16% and 84% respectively. During this census, 2007, the number of male populations was more than the number of female populations with 86,161 and 84,072 respectively.

3.1.3 CLIMATE

National Meteorological Agency of Ethiopia analyzed and indicated the major climate factors of the whole country. According to the information from this agency, the average monthly rainfall distribution; and the average monthly maximum and minimum temperature over a period of 27 years (1983-2010) for this woreda is described below.

3.1.4 RAINFALL

As indicated in Figure 2 below, the major rainfall months which get average monthly rainfall of above 100mm are June, July, August and September. In normal years the maximum average monthly rainfall is recorded in the month of July followed by August which in both cases above 200mm. The months November, December and January are known for their small amount average monthly rainfall, which in most cases below 20mm.

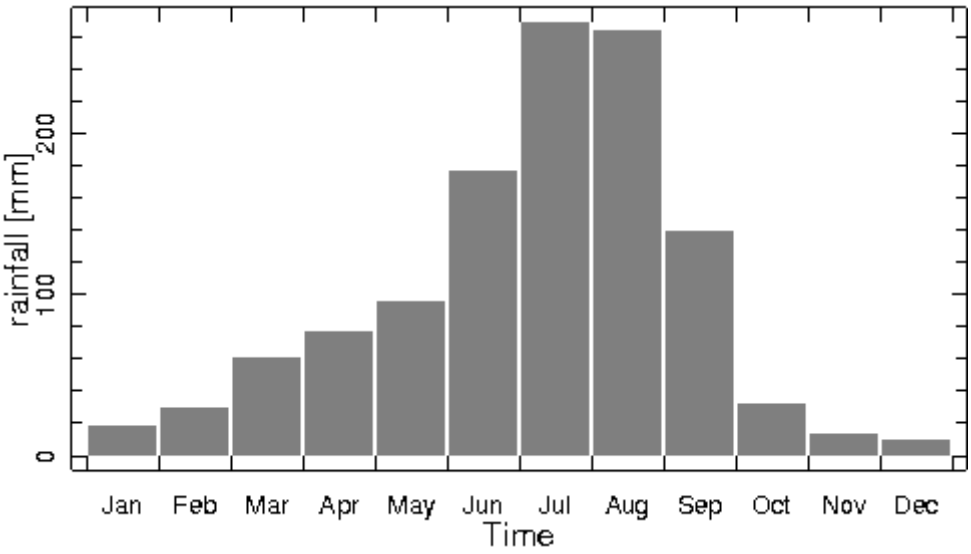


Figure 2. Average Monthly Rainfall (1983-2010)

3.1.5 TEMPERATURE

The average monthly maximum temparature of Dendi woreda ranges between 21.5^0C and 26^0C as indicated in Figure 3 below over the years 1983-2010. During these times large averege maximum temparatures were recorded in the months of February and March. In the same years, the minimum average monthly temparature values for this area were recoreded in the months of July and August.

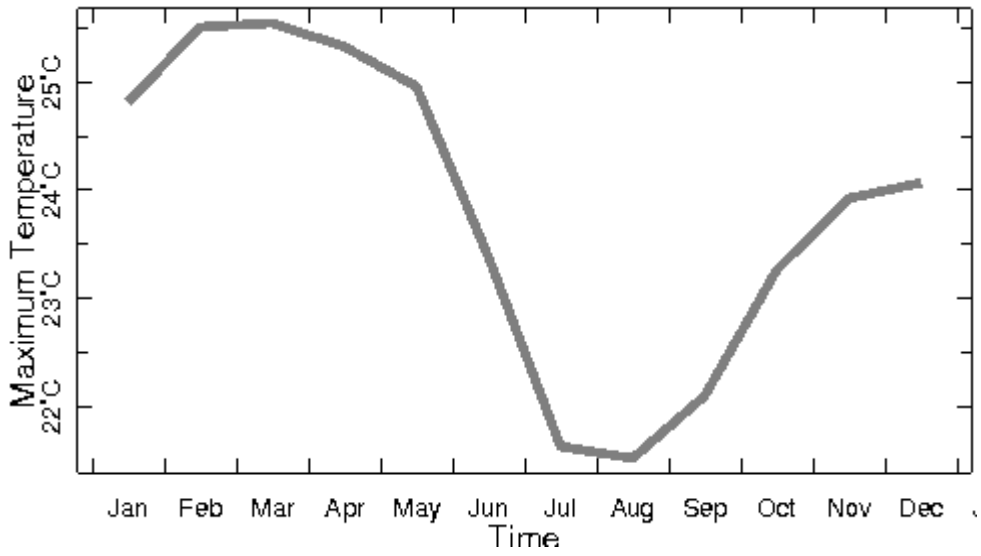


Figure 3.Average Monthly Maximum Temperature (1983-2010)

The other extrem tempareture, average monthly minimum tempareture for this woreda ranges over 7^0C to 10^0C. The smallest and largest averaged minimum temparture was recorded in the months December and April respectively. This indicates December and is the coldest month of the woreda with value about 7^0C as indicated in the Figure 4 below.

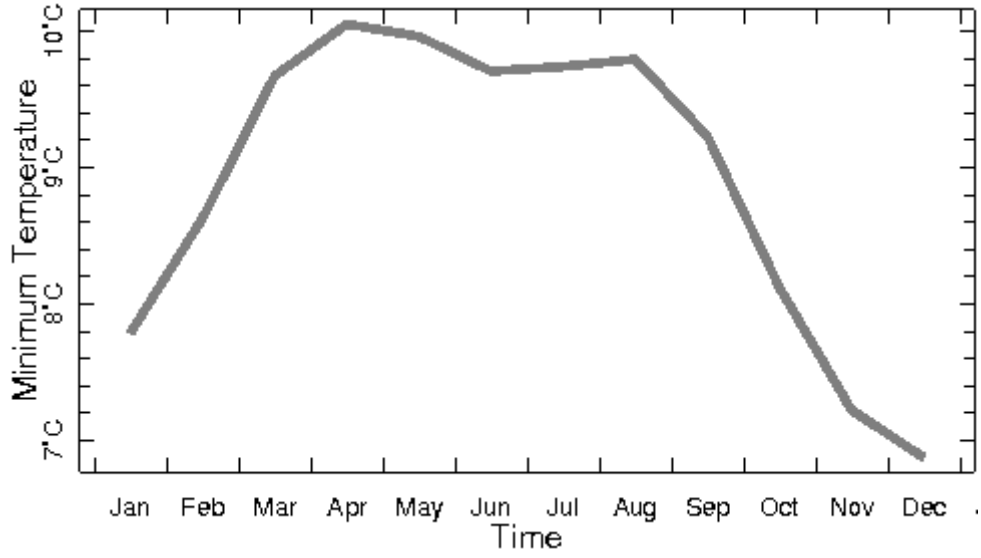


Figure 4. Average Monthly Minimum Temperature (1983-2010)

3.2 METHODS

3.2.1 SAMPLING DESIGN

A combination of probability and non - probability sampling techniques were used to carry out data collection. That is to say, selection of people for focus group discussion (FGD), and key persons for interviews is based on non-probability sampling methods (purposive sampling), and selection of respondents for the questionnaire prepared for house hold survey was based on probability sampling.

3.2.2 SOURCE OF DATA

For the purpose of this study, several data were collected from primary and secondary sources.

3.2.2.1 PRIMARY DATA COLLECTION

Under this category different data which have first hand information were gathered from different sources. Household survey, focus group discussion, and interview with key person informants were the main sources of primary data sources.

HOUSEHOLD SURVEY

Household survey was carried out using pre-tested structured questioner. These respondents were selected based on probability sampling method. Quota sampling method was used to identify the total number of respondents that should respond to the questioner from each kebels that have members in OMPFC. Consequently, after the above step is done, simple random sampling technique was used to select individual respondents from each kebeles. A total of 90 people were responded for the questioner.

The tool that was used to gather information from the respondents had six main parts. These are mainly designed as to address the main objective of the study. To mention these, general profiles about individual respondent, market stabilizations, the role of OMPFC in fertilizer distribution,

the role of OMPFC in selected seed distribution, the role of OMPFC in agro-chemicals distribution, the role of OMPFC in delivering and adoption of agricultural technologies were the main ones that are found attached with this document as an annex at the back of this paper.

FOCUS GROUP DISCUSSION

Focus group discussion was conducted with the major stakeholders. They were constituted from member groups of OMPFC, non- member of OMPFC, and experts working in OMPFC. A total of ten people in which 2, 3, and 5 were the number of people from experts working in OMPFC, non – member of OMPFC who have been living in that area, and the number of members of OMPFC respectively who participated on the FGD.

INTERVIEWS WITH KEY INFORMANTS

Key informant interview was another method employed to collect first hand data for this study. Here, nine persons from different groups and sectors were met to carry out interview with them. These people are selected from OMPFC employees, government cooperative office, and OMPFC members who have deep knowledge in this area.

3.2.2.2 SECONDARY DATA SOURCE

Secondary data to address the objective of the study were gathered from different sources. The data were related with distribution of fertilizer, selected seed varieties, and different agricultural technologies that the OMPFC were distributing. Moreover, efforts were made to review the existing literatures (different books, journals, and statistical abstracts) and documents from different sources. Internet websites were also explored as to collect up-dated information about the subject area of the study.

3.2.3 DATA ANALYSIS

Both qualitative and quantitative methods of data analysis techniques are employed. All the data obtained from the primary source of household survey were put under analysis using Statistical Package for Social Scientists (SPSS). Hence, different results that show the role OMPFC has been playing in distribution of fertilizer, selected seed varieties, and adoption of agricultural technologies will be presented in tables and graphs. Other questions that describe members' perception regarding the role of OMPF were analyzed in qualitative way.

4. RESULT AND DISCUSSION

4.1 MARKET STABILIZATIONS

Most of the time farmers sell their production to the local market. Cooperatives stabilize market through creating opportunity to get enough amount of agricultural output on the market and reasonably good cost for the outputs (Reitse (2006). As indicated in Figure 5 below, most of the farmers around the study area sell their products to OMPFC. About 99% of the respondents responded that they are using OMPFC as a means of market for the selling of their agricultural products. The other very minor portion (about 1% of the total) use local market and national market centers at Addis Ababa as a destination for their agricultural produce.

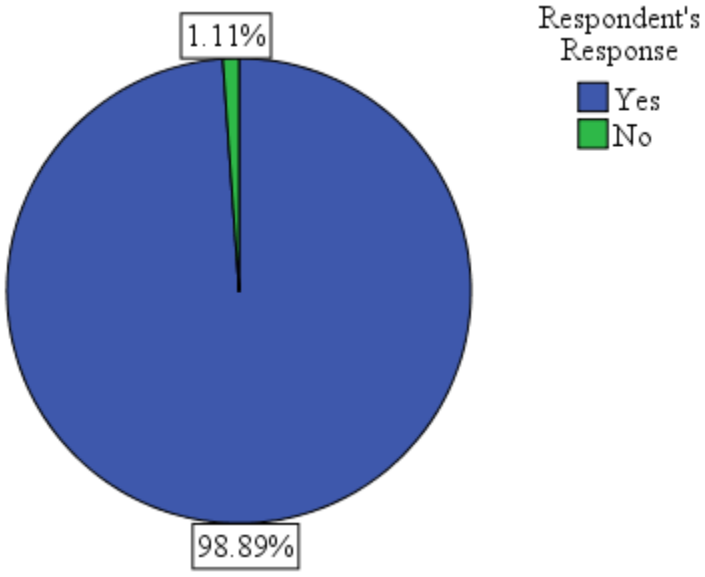


Figure 5.Farmers' Interest in Selling Agricultural Products to OMPFC

On the other hand, most of the farmers in this woreda buy agricultural inputs like fertilizer, selected seed verities that can perform better than the local varieties, chemicals, and modern farm implements from this cooperative. Related to this, different farmers have different perceptions for the cost given to their agricultural produces by OMPFC. As indicated in Figure 6 below,

about 70% of the farmers responded that the cost with which OMPFC is buying their agricultural produce has been reasonably good. Some 30% of them indicated that the cost is medium that it is better than the cost on the local market. They mean that OMPFC pays better price per kg than the local market. But it does not mean that the cost at OMPFC is such a large cost that creates difference compared the local market. Still, some 4% of the total respondents indicated that the cost on the local market and at the OMPFC is the same. On the other hand, very few respondents showed that the cost at OMPFC is lower than that of the local market.

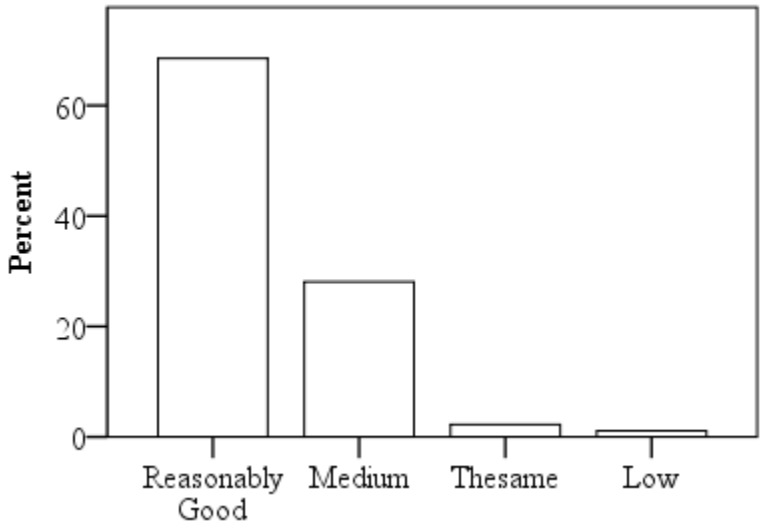


Figure 6.Respondents' Response on the Cost Given by OMPFC for their Output

All the respondents participated in this study believed that the OMPFC stabilized the local market. The cost for agricultural inputs and outputs are lower and higher respectively at OMPFC than at the local market by individual traders. Agricultural inputs like fertilizer, agro-chemicals, selected seed varieties and modern agricultural tools are being sold at lower price by OMPFC than at the local market. On the other hand, the cost for the agricultural products by the farmers being getting better at OMPFC than at the local market.

Therefore, OMPFC is serving both members and non members of it through supplying agricultural inputs with lower cost and buying their produce with better cost. This creates condition for the existence of enough amounts of inputs in the market which in turn has its own effect on the cost of these products. This keeps the local market not going further expensive. Hence, OMPFC playing great role in stabilizing market in Olonkomi Woreda.

4.2 THE ROLE OF OMPFC IN FERTILIZER DISTRIBUTION

The amount of crop yield to be harvested also depends on agricultural inputs. Among these, fertilizer is the main input for the increase in the production of crops (Weini, *et al*. 2013). It helps crops to set good seeds, provides good standing, eventually results in a good yield. Regarding the farmers in the study area, most of them use fertilizer in order to improve their yield. As indicated in Figure 7 below, most of the respondents (about 98%) are using fertilizer. This indicates that most of the farmers in this woreda are using this agricultural input to get better yield. The farmers stated that in order to replace absorbed plant nutrients, fertilization is very important. This is, however, this is not possible, the farmlands have to be left fallow for some three to five years. But, this is not possible where there is high population like in Olonkomi woreda, hence application of fertilizer is a mandatory issue. The other 2% of respondents indicated the case of farmers with small amount of land to farm on. This group is characterized with possession of a small plot of farm land and a number of cattle heads from which cattle residue can be used to improve soil nutrient. Therefore, most farmers within Olonkomi Woreda use fertilizer for sustainable crop production, while very small farmers uses animal waste products to keep the fertility of their farm land.

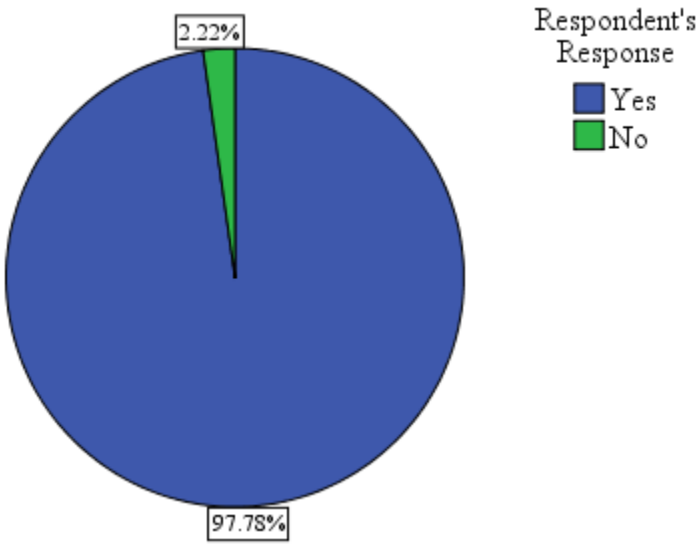


Figure 7. Respondents Using Fertilizer

Since fertilizer is identified as very important source to improve crop production, there should be good access to this input. In Ethiopia, agriculture and rural development offices were the main agents in supplying fertilizer to farmers in the previous years. But now days, local markets and agricultural cooperatives are the main actors who handled this issue. In Olonkomi woreda, most of the farmers use OMPFC as a source for the supply of fertilizer as indicated in Figure 8 below. On the other hand, local market, agriculture and rural development office, and other cooperatives contribute very few of fertilizer supply within the woreda.

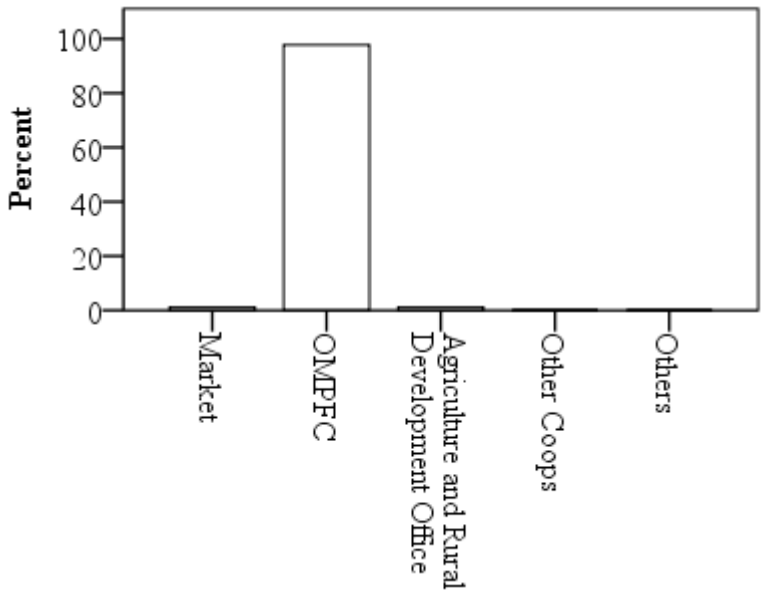


Figure 8.Source of Fertilizer in Olonkomi Woreda

Respondents compared the cost, quality, and quantity of fertilizer delivered by OMPFC with that of other suppliers on the local market. Accordingly, regarding the service by OMPFC with the above factors, 5%, 78%, and 18% indicates the number of respondents who responded very good, good and fair respectively as indicated in Figure 9 below. These values described that OMPFC is serving both the members and the non members with reasonably good cost than the cost for agricultural inputs on the local market.

Figure 9. Farmers Perception about the Cost, Quality and Quantity of Fertilizer Delivered by OMPFC

This in turn indicates that most of the farmers within the woreda are satisfied with or prefers OMPFC to other fertilizer suppliers. But the majority of this farmers stated that there are still problems on the supply of fertilizer as indicated in Figure 10 below. About 96% of the respondents responded that the cost of fertilizer is the main problem in the study area. This group indicated that regardless of the access of fertilizer on the market, the cost for this input is very high to the level most farmers cannot afford it. The other 4% of them indicated the existence of scarcity of fertilizer on the local market.

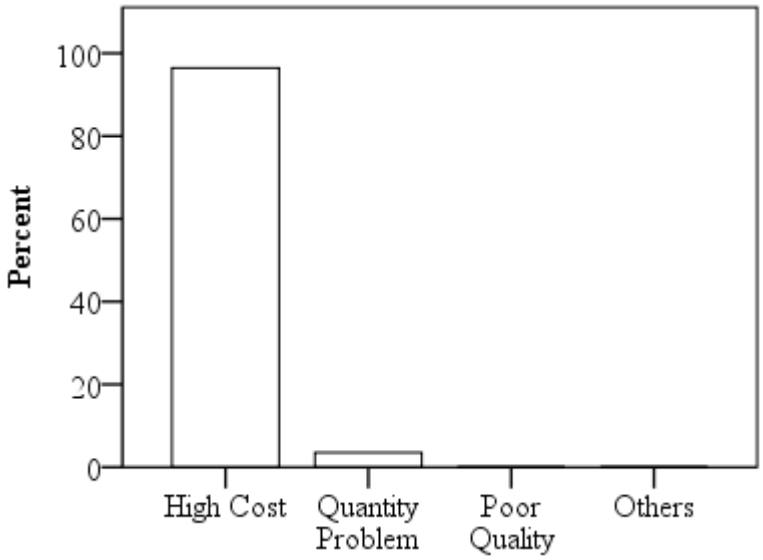


Figure 10. Problems with Fertilizer Supply

In connection with the above problems, most farmers in the study area are not using the recommended rate of fertilizer per plot of farmland for a particular crop. However, regarding fertilizer distribution, OMPFC has some benefits for the farmers as indicated in Figure 11 below.

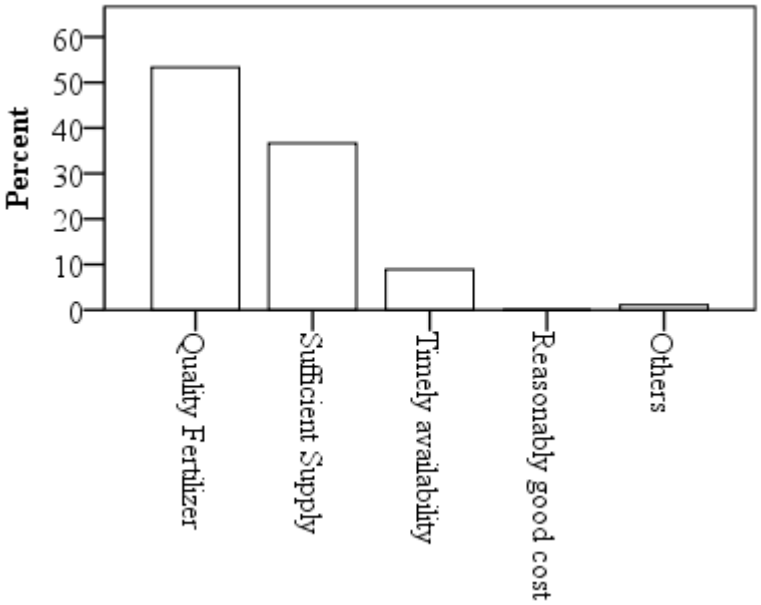


Figure 11. Benefits Regarding Fertilizer from OMPFC

About 52% of the respondents indicated that they are getting quality fertilizer from OMPFC. The other 40% and 10% of respondents agreed that sufficient supply and timely availablity respectively are the main contribution of OMPFC for the farmers.

4.3 THE ROLE OF OMPFC IN SELECTED SEED DISTRIBUTION

Cooperatives are farmer institutions may be to supply agricultural inputs used in production system. As indicated by Gupta (1999) the most important activities of cooperatives are the disbursement of production credit and distribution of fertilizers and other inputs viz seeds, pesticides and agricultural implements. As the the quality of the seed determines the amount of yield to be collected, using appropriate seed variety is very important in crop production system. In search of good yield at the end of harvesting season, the majority of Olonkomi farmers (about 98% as shown in Figure 12 below) prefer to use high performing selected seed varities but access to such seeds are very limited. Hence, most farmers in this woreda are using the local breed in their production system.

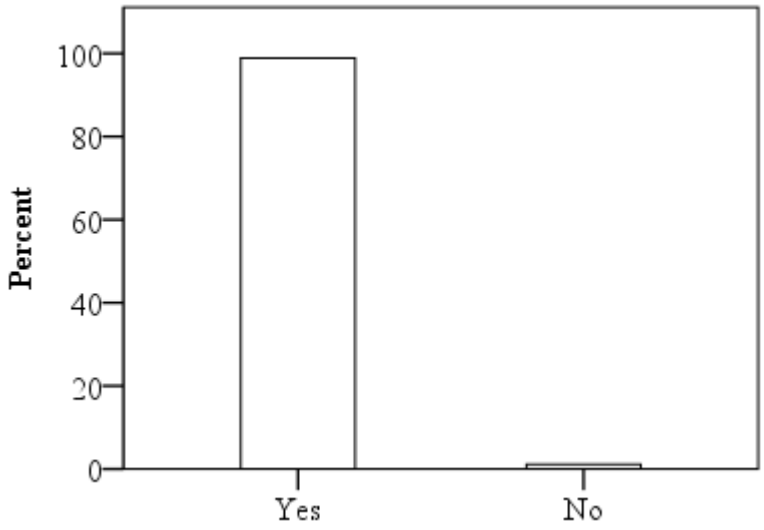


Figure 12. Farmers' Need to Use Selected Seed By OMPFC

Based on yield productivity and market value of selected seed varieties, farmers prefer to use some varieties than others. Accordingly, as indicated in Figure 13 below, selected seed varity of teff is given the first priority by the farmers. Where as wheat, maize, and barley take second, third and fourth priority respectively. From the total respondents, 48%, 26%, 25%, and 1% are the figures given for teff, maize, wheat and barley respectively. This indicates that teff is the dominat crop cultivated in this woreda followed by maize and wheat.

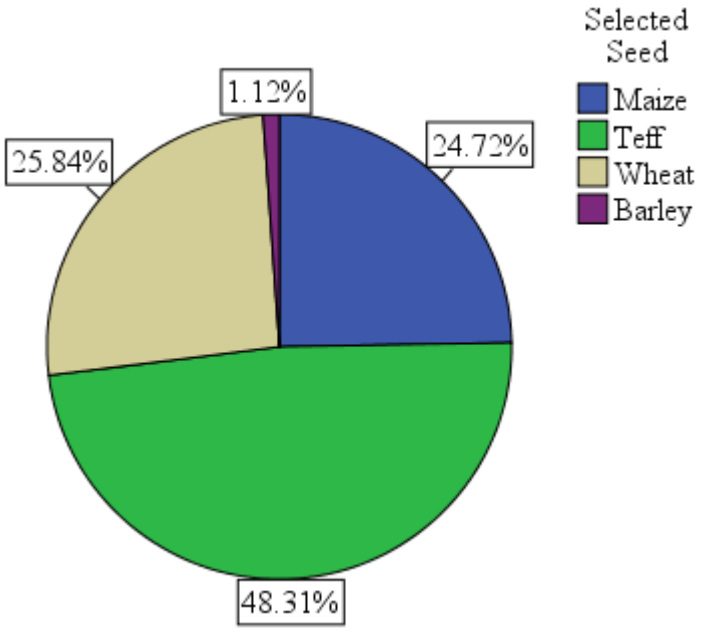


Figure 13. Farmers' Preferences Among Selected Seed Varieties

As discussed above selected seeds varieties may be the principal ways to improve the production syatem. In the study area the main actors who supply these seeds are the local market, OMPFC, and agriculture and rural development office. The larger portion of selected seed varities are being distributed by OMPFC which covers 96% of the total need in the woreda as indicated in Table 1 below. Market and agriculture and rural development office takes very few portion whch is about 2% and 1% respectively.

Table 1. Sources of Selected Seed Varieties

Description		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Market	2	2.2	2.2	2.2
	OMPFC	86	95.6	96.6	98.9
	Agriculture and Rural Development Office	1	1.1	1.1	100.0
	Total	89	98.9	100.0	
Missing	Not Applicable	1	1.1		
Total		90	100.0		

Comparing OMPFC with other seed supplying agents for the service they are providing regarding the cost, quality, and quantity of selected seed varieties, respondents showed that OMPFC is an outsanding institution to serve the community who established it. As indicated in Figure 14 below, the majority of the respondents, with 76%, decribed the service delivered by OMPFC as ‘good’ compared with other agents. Values 12% and 18% describe the rate given by respondents to ‘very good’ and ‘fair’ respectively for the service quality of OMPFC.

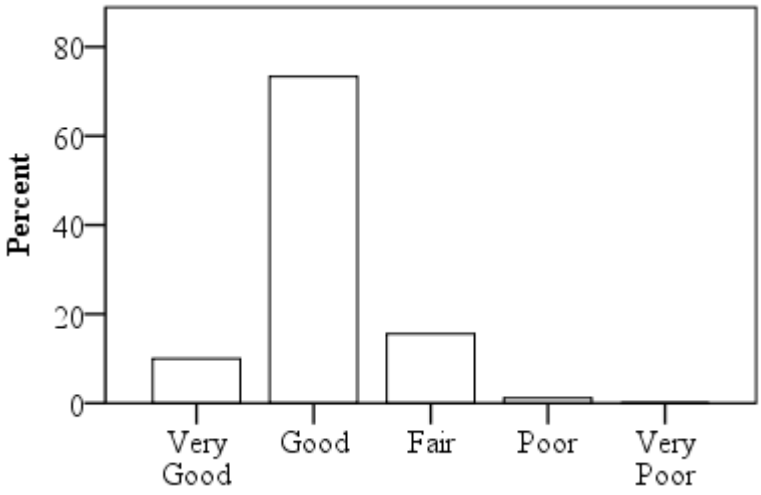


Figure 14. Comparison of Selected Seed by OMPFC with Other Agents

Respondents described that there are constraints related to seed supply which should be adressed to improve the existing situation. The problems identified by the farmers are the high cost of seeds which minimized the interest of farmers to use it, scaricity in particular seed varities that are well performing in the existing agro-ecology, and some times the poor quality of the selected seed which can not perform even to the level the local seed varities can do. Accordingly, as indicated in Figure 15 below, 44%, 43%, 12%, and 1% are indicating problems related with fertilizer supply as high cost, scarcity, poor quality of the seed varity, and others respectively. The other factors include delay in the time of supply, shortage of resource to buy selected seed varities, and absence of credit.

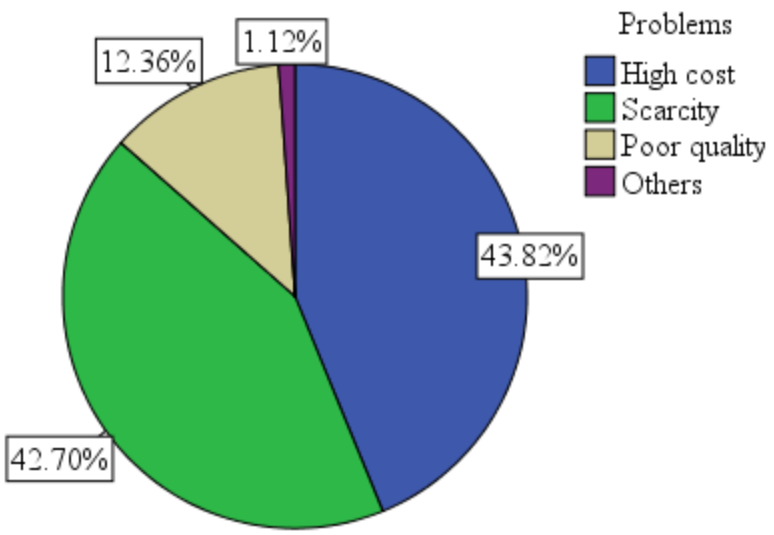
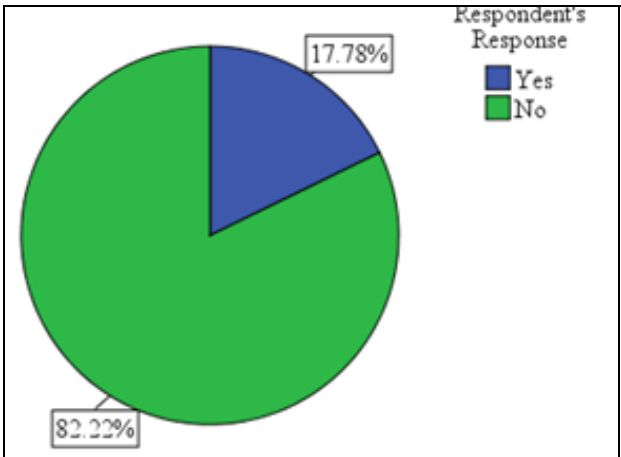
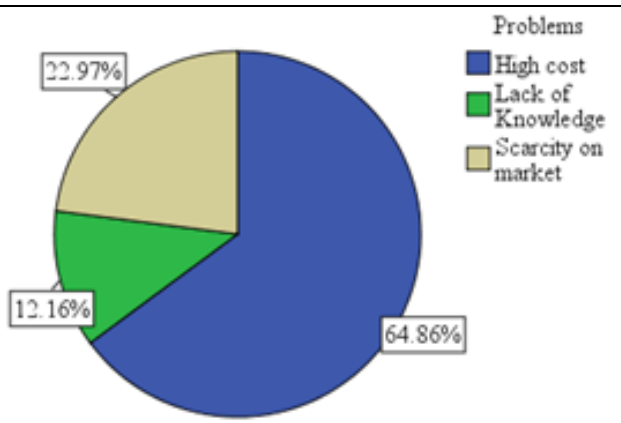


Figure 15. Problems in Selected Seed Varieties supply

Related with the above problems, most of the farmers in the study area are not using recommended rate of selected seed varieties per plot of land. As indicated in Figure 16 (A) below, about 82% of the respondents indicated that they are not using recommended rate of fertilizer for one or the other factors listed in Figure 16 (B) below. Only about 18% of the respondents indicated that they are using recommended rate of selected seed variety per plot of land. High costs of the seeds are the dominant problem listed by the respondent. Regarding the problems that hinder to use recommended rate of selected seed varieties per plot of land; 64.86%, 22.97%, and 12.16% are the numbers of respondents who responded high cost of seed lot, scarcity on the local market, and lack of knowledge respectively.



(A). Recommended Rate of Fertilizer Per Plot of Land



(B). Hindrances to Use Recommended Rate of Selected Seed Varieties

Figure 16. (A). Recommended Rate of Fertilizer Per Plot of Land, (B). Hindrances to Use Recommended Rate of Selected Seed Varieties

4.4 THE ROLE OF OMPFC IN AGRO-CHEMICAL DISTRIBUTION

Crop protection is among the main agronomic practices for harvesting good yield. Crops are exposed to different animal and plant species that affect their existance and minimize their performance. To protect crops from such yield costraining factors, different crop protection meanses are used. Agro-chemicals are among the meanses to protect crops against pests and weeds (Muller, 2002). The result from the household survey indicates that all of the farmers in the study area use agrochemicals. The common sources were from local market, OMPFC, agriculture and rural development office, and other cooperatives. But agriculture and rural development office ceased to distribute suh inputs and absence of other agricultural cooperatives in the local area limited the option to only two agents. Accordinly, as indicated in Table 2 below, the local market and OMPFC covers 9% and 91% of agro-chemical distribution respectively.

Table 2. Source of Agro-chemicals within the Woreda

Description		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Market	8	8.9	8.9	8.9
	OMPFC	82	91.1	91.1	100.0
	Total	90	100.0	100.0	

Comparing the cost quality, qualiity and quantity of agro–chemicals supplied by OMPFC with that on the local markate, repondents responded as indicated as shown in Figure 17 below.

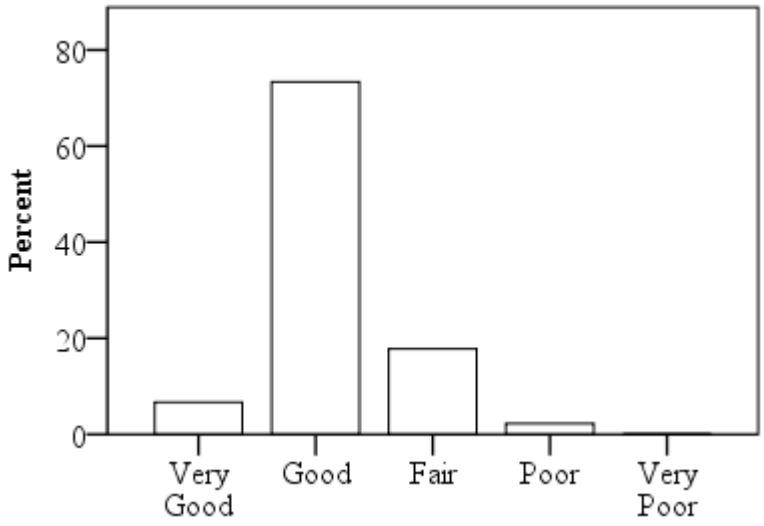
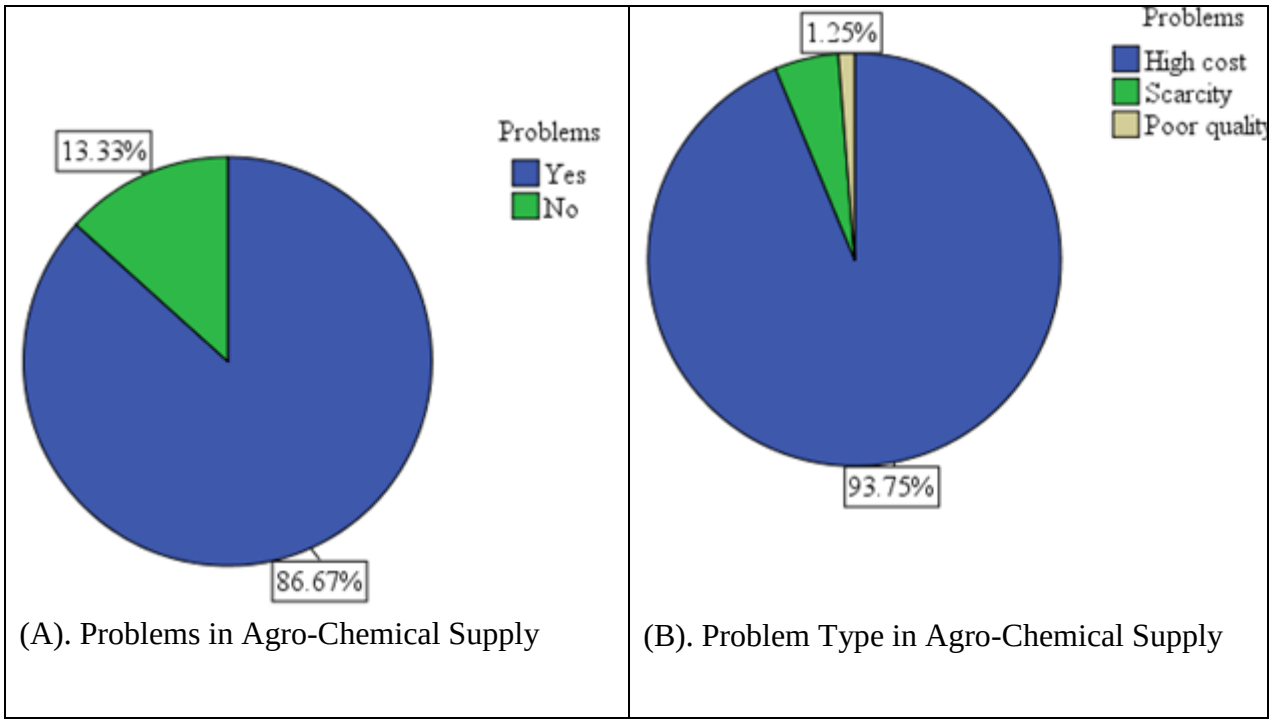


Figure 17. Comparison of Agro-chemicals by OMPFC with that of Local Market

About 74%, of the respondents agreed that the service provided by OMPFC regarding the cost, and quality agro-chemicals is ‘good’. The other 8% considered it as ‘very good’. The rest 20% and 4% rated as ‘fair’ and ‘poor’, respectively.

Farmers described that there are problems reagrding availablity of agro- chemical supply in the woreda. The houshold survey indicated that about 87% of the farmers in the woreda are facing

problem regarding access to agro-chemical supply. Only 13% of the farmers in the woreda get good acces to this agricultural input. This group improved its access by getting this inputs from other market out side of the woreda particularly by purchasing from Addis Ababa. Those who couldn't expand their opportunity fell within the 87%, who are not with good access of agro-chemicals. This group is facing several problems among which high cost, scarcity on local market, and poor quality of agro-chemicals are the major ones. Accordingly, 94%, 5% and 1% are the type of agrochemical problems described as high cost, scaricity on local market, and poor quality respectively as indicated in Figure 18 below.



(A). Problems in Agro-Chemical Supply

(B). Problem Type in Agro-Chemical Supply

Figure 18. (A). Level and (B).type of problem regarding agrochemical supply

Related with some factors mentioned above and others which did not mentioned here, about 84% of the farmers in this woreda are not using recommended rate of agro-chemicals as indicated in Figure 19 below. Only 16% of the farmers use recommended rate of agro-chemical which is with the right amount that the crop is looking for.

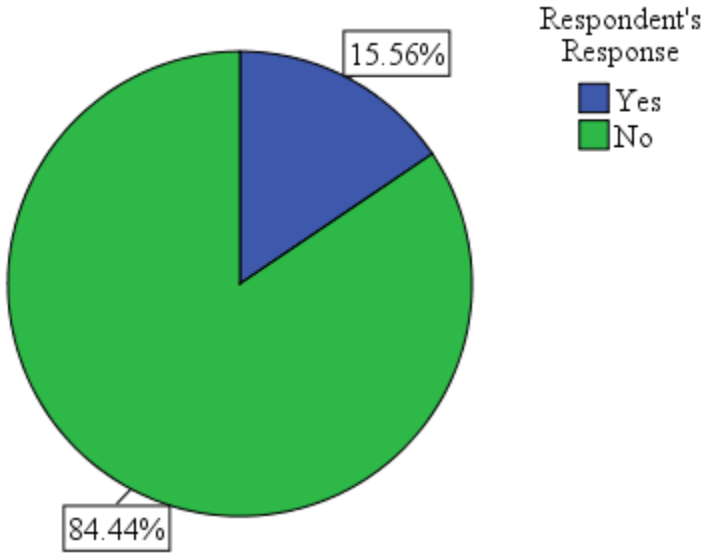


Figure 19. Practicing Recommended Rate of Agro-chemicals Per Plot of Land

This under recommended rate usage, kg per plot below the scientifically stated one, of this inputs is due to factors like high cost of agro-chemicals, lack of knowledge about the right dose per plot of land for particular crop, and scarcity of it on the local market. Accordingly, as indicated in Table 3 below, the majority of respondents indicated that the main problem regarding not using agro-chemical in the recommended rate is due to its 'high cost'. The other main problems of this are lack of knowledge, and scarcity on the local market that accounts for 7% and 4% respectively.

Table 3. Factors that Hinder to Practice Recommended Rate of Agro-chemicals

Description		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	High Cost of Agro-chemicals	66	73.3	86.8	86.8
	Lack of knowledge	6	6.7	7.9	94.7
	Scarcity on the Local Market	4	4.4	5.3	100.0
	Total	76	84.4	100.0	
Missing	Not Applicable	14	15.6		
Total		90	100.0		

Generaly, farmers mentioned the benefits they are getting from OMPFC regarding the agrochemicals as described in Table 4 below. The main benefits they are getting from OMPFC are quality agrochemicals and sufficient supply which takes about 62% and 4% respectively. Timely agrochemical supply and reseonably good cost of it are the other minor benefits that farmers are getting from OMPFC.

Table 4. Benefits of Agro-chemicals from OMPFC

Description		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Quality agro-chemicals	56	62.2	62.2	62.2
	Sufficient Supply	22	24.4	24.4	86.7
	Timely availability	9	10.0	10.0	96.7
	Reasonably good cost	3	3.3	3.3	100.0
	Total	90	100.0	100.0	

4.5 THE ROLE OF OMPFC IN DELIVERING AND ADOPTION OF AGRICULTURAL TECHNOLOGIES

Cooperatives who are born out of the community are striving for the development of its community. This may be through transfering modern farm technologies directly from the producers to the farmers, working as a link between farmers and research centeres, identifying problems of farmers, adoption of farm implements, and distribution of farm implements at low cost. OMPFC has been distributing some modern farm implements like the plow, sprayer, sickle, hand wheels, and water pump motors. Respondents indicated these tools improved their efficiency in performing different agricultural activities hence, their income also increased.

The extent to which level modern farm implemnts contributed is rated as exremely very good, very good, high, medium and low as discribed in Figure 19 below. The majority, about 48%, of the respondents indicated that the supply increased their income by medium level. The others,

22%, 20%, and 10% described the level of improvement in their income due to provision of modern agricultural farm implemnts as low, high, and very high respectively.

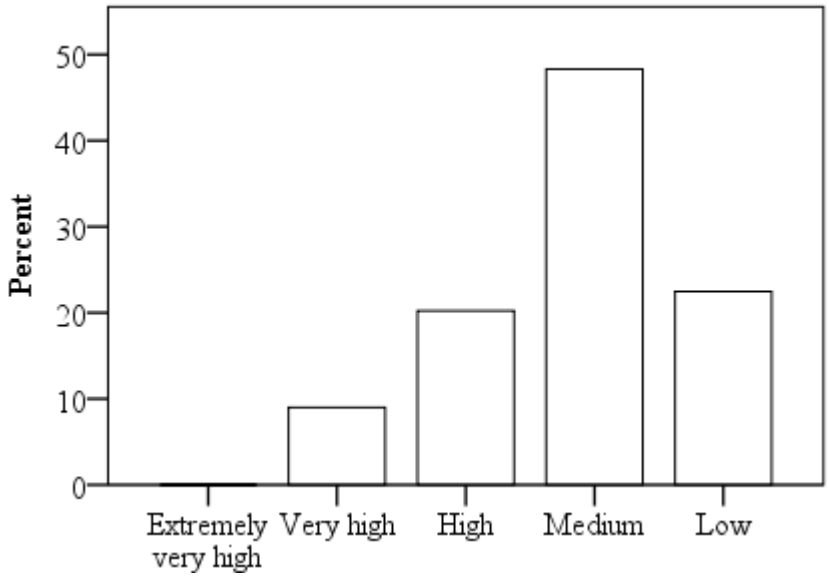


Figure 20. Contribution of Modern Farm Implements in Income improvement

Even though the contribution of modern agricultural farms implements in production improvement is well known, due to one or several factors which are prevalent in the study area, adoption and usage of these technologies are not prevalent. As indicated in Table 5 below scarcity of such a resource in the study area is the main problem. The other major problems next to unavailability of these technologies are the high cost, problem in adoption, scarcity and lack of awareness with figures 29%, 15% and 12% respectively.

Table 5. Problems in Using Modern Agricultural Technologies

Description		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	High Cost	26	28.9	28.9	28.9
	Unavailability	31	34.4	34.4	63.3
	Problem in Adoption	13	14.4	14.4	77.8
	Scarcity	11	12.2	12.2	90.0
	Lack of awareness	9	10.0	10.0	100.0
	Total	90	100.0	100.0	

5. CONCLUSION AND RECOMMENDATIONS

5.1 CONCLUSION

Agricultural cooperatives are the main actors in facing and solving the farm community problems. It is formed by the farm community who pull their resources together for the production and marketing of their produce with the final target of improvement in economic, social and cultural aspects for members and for the whole community when it gets far stronger.

In this study a combination of probability and non - probability sampling techniques were used to gather both primary and secondary nature of data. Household survey, focus group discussion, and interview with key person informants were the main sources of primary data sources. On the other hand, different data within different organizations, books, journals, and statistical abstracts were sources of secondary data for this study. SPSS was the software used to make analysis for the data gathered at household level.

Olonkomi Multipurpose Primary Farmers' Cooperative (OMPFC) is helping both members and non members of cooperative in several aspects. It distributes fertilizers on timely bases, supplies selected seed varieties that are better in their yield performance than the local breed, distributes agro-chemicals to protect crops from different animal and plant pests, and it takes part in supplying and adoption of modern agricultural farm implements. Hence, OMPFC is playing great role in stabilizing the local market.

However, all the services delivered by OMPFC depend on cash payment. But there is no financial institution that gives credit for the farmers. Therefore, farmers cannot buy agricultural inputs at appropriate time with adequate quantity. Hence their capability to harvest much and OMPFC's involvement in further supply is limited.

5.2 RECOMMENDATIONS

- Selected seed varieties which have been distributed to this areas were developed in areas which have different agro-ecologic zone. Related with this, the wheat variety, that were distributed by OMPFC were seen under performing. Therefore, selected seed varieties that adap itself to the local agro-ecology of Olonkomi area shall be introduced.

- It is well known that farmers lack enough resource to buy agricultural inputs specialy during cropping seasons. And OMPFC provide this inputs only on cash payment bases. In relation to this, there should be some credit institutions that can provide them credit for the purchase of agricultural inputs hence they can get the right amount of inputs at the right time.

- Modern agricultural implemnts are seen very scarce in this woreda. Hence, both OMPFC and Olonkomi Woreda's agriculture and rural development office shall work further inorder to improve the access farmers have for this implemnt thereby inreasing their efficiency.

- The level of input determines the level of out put in agricultural production. This indicates the amount and quality of fertilizer, selected seed varities, and agro-chemicals used for the production of particular crop determines the level of production going to be harvested at the end of the season. Hence, farm extension service shall be improved to raise the awarness level of this community to use quality and enough agricultural inputs in their production system.

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APPENDIXES

A. LIST OF TABLES AND CHARTS FROM SPSS

Table: 1 Major Crops Grown in the Study Area

	Frequency	Percent	Valid Percent	Cumulative Percent
Maize	49	54.4	54.4	54.4
Teff	27	30.0	30.0	84.4
Sorghum	1	1.1	1.1	85.6
Bean	6	6.7	6.7	92.2
Others	7	7.8	7.8	100.0
Total	90	100.0	100.0	

Table:2 Source of Agricultural Inputs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	OMPFC	87	96.7	100.0	100.0
Missing	Not Applicable	3	3.3		
Total		90	100.0		

Table 3: Contribution of OMPFC for Members

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Distribution of Agricultural Inputs	51	56.7	72.9	72.9
	Distribution of basic consumption goods	17	18.9	24.3	97.1
	Buy agricultural products with reasonably good price	2	2.2	2.9	100.0
	Total	70	77.8	100.0	
Missing	Not Applicable	20	22.2		
Total		90	100.0		

Table: 4 Cause of Improvement in OMPFC Members'

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Low Input Price	39	43.3	43.3	43.3
	Better Output Price	40	44.4	44.4	87.8
	Market Stabilization	8	8.9	8.9	96.7
	Dividend Payment	3	3.3	3.3	100.0
	Total	90	100.0	100.0	

Table: 5 OMPFC Contribution for Non-members

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Distribution of Agricultural Inputs	66	73.3	73.3	73.3
	Distribution of basic consumption goods	24	26.7	26.7	100.0
	Total	90	100.0	100.0	

Table: 7 Problems with regard to Fertilizer Supply

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	High Cost	82	91.1	96.5	96.5
	Quantity Problem	3	3.3	3.5	100.0
	Total	85	94.4	100.0	
Missing	Not Applicable	5	5.6		
Total		90	100.0		

Table: 8 Problems with regard to Fertilizer Supply

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	High Cost	82	91.1	96.5	96.5
	Quantity Problem	3	3.3	3.5	100.0
	Total	85	94.4	100.0	
Missing	Not Applicable	5	5.6		
Total		90	100.0		

Table: 9 Reasons for not Using Recommended Rate of Fertilizer

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	High cost of fertilizer	60	66.7	75.9	75.9
	Lack of knowledge	16	17.8	20.3	96.2
	Scarcity on the Local Market	3	3.3	3.8	100.0
	Total	79	87.8	100.0	
Missing	Not Applicable	11	12.2		
Total		90	100.0		

Table: 10 Fertilizer benefit from OMPFC

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Quality Fertilizer	48	53.3	53.3	53.3
	Sufficient Supply	33	36.7	36.7	90.0
	Timely availability	8	8.9	8.9	98.9
	Others	1	1.1	1.1	100.0
	Total	90	100.0	100.0	

Table: 11 Problems as to not use recommended rate of selected seed

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	High cost	48	53.3	64.9	64.9
	Lack of Knowledge	9	10.0	12.2	77.0
	Scarcity on the local market	17	18.9	23.0	100.0
	Total	74	82.2	100.0	
Missing	Not Applicable	16	17.8		
Total		90	100.0		

Table: 12 Seed Benefits from OMPFC

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Quality Seed	64	71.1	71.1	71.1
	Sufficient Supply	19	21.1	21.1	92.2
	Timely Availability	1	1.1	1.1	93.3
	Reasonably good cost	5	5.6	5.6	98.9
	Others	1	1.1	1.1	100.0
	Total	90	100.0	100.0	

Table: 13 Problem Types in Agrochemical Supply

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	High cost	75	83.3	93.8	93.8
	Not availability in quantity	4	4.4	5.0	98.8
	Poor quality	1	1.1	1.3	100.0
	Total	80	88.9	100.0	
Missing	Not Applicable	10	11.1		
Total		90	100.0		

Table: 14 Contribution of OMPFC in Farm Technology

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Transferring modern farm technology as it is	41	45.6	45.6	45.6
	Adoption of farm implements	3	3.3	3.3	48.9
	Distribution of farm implements with low cost	46	51.1	51.1	100.0
	Total	90	100.0	100.0	

Table: 15 Modern Farm Implements from OMPFC

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Plows	56	62.2	62.2	62.2
	Sprayer	2	2.2	2.2	64.4
	Sickle	25	27.8	27.8	92.2
	Hand Wheels	5	5.6	5.6	97.8
	Water Pump	2	2.2	2.2	100.0
	Motors				
	Total	90	100.0	100.0	

Table: 16 Are you using selected seed for your farm practice

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	89	98.9	98.9	98.9
	No	1	1.1	1.1	100.0
	Total	90	100.0	100.0	

Table: 17 Source of Selected Seed

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Market	2	2.2	2.2	2.2
	OMPFC	86	95.6	96.6	98.9
	Agriculture and Rural Development Office	1	1.1	1.1	100.0
	Total	89	98.9	100.0	
Missing	Not Applicable	1	1.1		
Total		90	100.0		

Table: 18 Seed Supply Problems

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	89	98.9	98.9	98.9
	No	1	1.1	1.1	100.0
	Total	90	100.0	100.0	

Table: 19 Are you using agro-chemicals

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	90	100.0	100.0	100.0

Table:20 Modern Farm Implements from OMPFC

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Plows	56	62.2	62.2	62.2
	Sprayer	2	2.2	2.2	64.4
	Sickle	25	27.8	27.8	92.2
	Hand Wheels	5	5.6	5.6	97.8
	Water Pump	2	2.2	2.2	100.0
	Motors				
	Total	90	100.0	100.0	

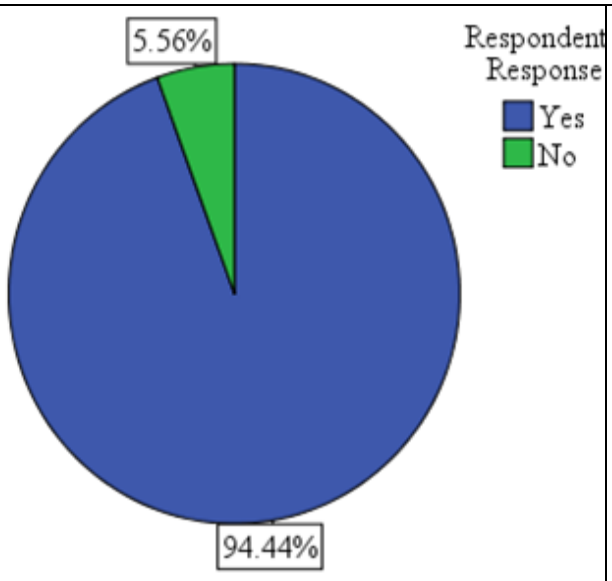
Table: 21 The Implements from OMPFC Increase Efficiency

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	88	97.8	97.8	97.8
	No	2	2.2	2.2	100.0
	Total	90	100.0	100.0	

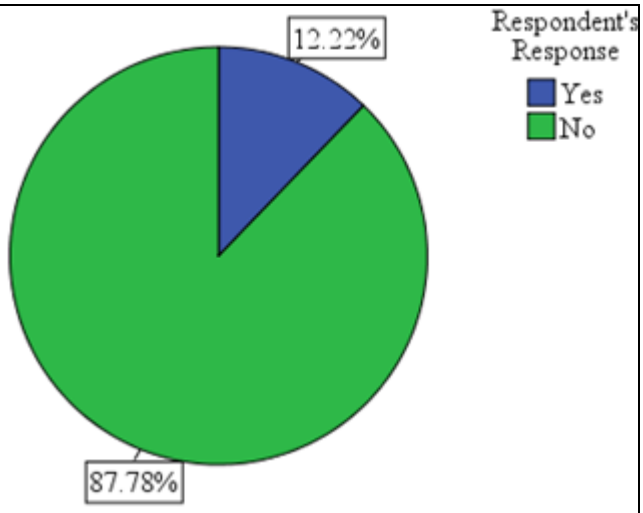
Table: 22 Contribution of Implement in Income Improvement

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	89	98.9	98.9	98.9
	No	1	1.1	1.1	100.0
	Total	90	100.0	100.0	

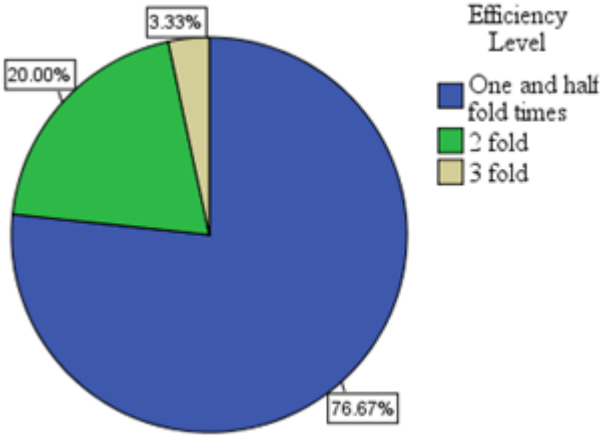
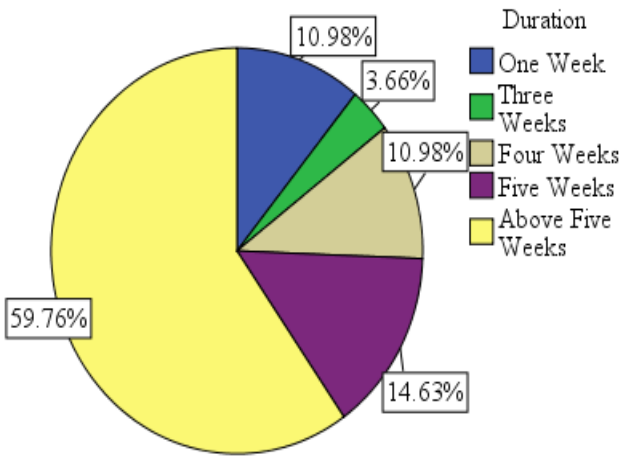
B. Figures



(A). Problems in Fertilizer supply



(B). Recommended rate of fertilizer per plot of land

	
(C).Efficiency of modern farm implement compared with traditional one	(D). Input Distribution time a head of cropping Season

C. Data Collection Tool for Household Survey Purpose

Code: _____

This Tool is Prepared to Collect Information about the Contribution of Olonkomi Multipurpose Primary Farmers' Cooperative (OMPFC).

Respondent name _____ Age _____ Sex_____

Tick (√) one: Member □ Non-member □

A. General Questions

1. What are the major crops grown in your area?

1. Maize 2. Teff 3. Sorghum 4. Niger Seed 5. Bean 6. Others, Specify _____ .

2. Are you using agricultural inputs in your farm production?

1. Yes 2. No

3. If your answer for the above question is yes, where have you been getting them?

1. OMPFC 2. Market 3. Agriculture & rural development Office 4. Others, specify

4. Are you the member of Olonkomi Multipurpose Primary farmers' Cooperative (OMPFC)?

1. Yes 2. No

5. If your answer for question 4 is yes, what are the contributions of OMPFC for the members?

1. Distribution of agricultural inputs

2. Credit for the purchase of agricultural inputs and consumption purpose

3. Link between research centers and the community

4. Distribution of basic consumption goods

5. Buy agricultural products with reasonably good price

6. Others, specify_____ .

6. What is your perception on the change in your standard of living after joining to OMPFC?

1. Highly Improved 2. Moderately Improved 3. Improved (but low) 4. No change at all

7. If there is a change, what do you think the cause of improvement in your life?

1. Low input price

2. Better output price

3. Availability of credit

4. Market stabilization

5. Dividend payment

6. Others, specify, _____ .

8. Are you able to get all the agricultural inputs from your cooperative society on correct time and quantity? 1. Yes 2. No

9. If yes, before how many weeks ahead of the start of the next cropping season?

1. One 2. Two 3. Three 4. Four 5. Five 6. Other, specify _____ .

10. What are the contributions of OMPFC for the non-members?

1. Distribution of agricultural inputs

2. Credit for the purchase of agricultural inputs and consumption purpose

3. Link between research centers and the community

4. Distribution of basic consumption goods

5. Others, specify_____ .

6. Nothing

B. Market Stabilizations

1. Are you selling agricultural products to OMPFC?

1. Yes 2. No

2. If your answer to the above question is yes, what is your perception on the price offered by OMPFC to your agricultural produce as compared to other private traders?

1. Reasonably good 2. Medium 3. The same 4. Low

3. Do you think that OMPFC stabilized the local market?

1. Yes 2. No

C. The Role of OMPFC in Fertilizer Distribution

1. Are you using fertilizer for your farm practice?

1. Yes 2. No

2. If your answer for question one is yes, where do you get it?

1. Market 2. OMPFC 3. Agriculture and Rural Development Office 4. Other Coops

5. Others, specify _____ .

3. While comparing the cost, quality and quantity of fertilizer delivered by OMPFC with that of other suppliers, how do you rate the ones from OMPFC?

1. Very Good 2. Good 3. Fair 4. Poor 5. Very Poor

4. Do you have problems with regard to fertilizer supply?

1. Yes 2. No

5. If your answer for question 4 is ***yes***, what are they?

1. High cost 2. Quantity Problem 3. Poor quality 4. Others, mention

6. Are you using the recommended rate of fertilizer per plot of land for a particular crop type?

1. Yes 2. No

7. If your answer for question 6 is no, what is your reason/s?

1. High cost of fertilizer 2. Lack of knowledge about the right dose per plot of land for particular crop

3. Scarcity on the local market 4. Others, specify _____ .

8. What benefits are you getting from OMPFC with regard to fertilizer supply?

1. Quality fertilizer 2. Sufficient Supply 3. Timely availability 4. Reasonably good cost

5. Others, specify _____ .

D. The Role of OMPFC in Selected Seed Distribution

1. Are you using selected seed for your farm practice?

1. Yes 2. No

2. If your answer for question one is yes, what are they?

1. Maize 2. Teff 3. Wheat 4. Barley 5. Others, specify _____.

3. If your answer for question one is yes, where do you get them?

1. Market 2. OMPFC 3. Agriculture and Rural Development Office 4. Other Coops

5. Others, specify _____ .

4. While comparing the cost, quality and quantity of selected seed supply by OMPFC with that of other suppliers, how do you rate the ones from OMPFC?

1. Very Good 2. Good 3. Fair 4. Poor 5. Very Poor

5. Do you have problems with regard to selected seed supply?

1. Yes 2. No

6. If your answer for question 5 is yes, what are they?

1. High cost 2. Scarcity 3. Poor quality 4. Others, mention _____ .

7. Are you using the recommended amount of selected seed per plot of land for a particular crop type?

1. Yes 2. No

8. If your answer for question 7 is no, what is/are your reason/s?

1. High cost of it 2. Lack of knowledge about the right dose per plot of land for particular crop type

3. Scarcity on the local market 4. Others, specify _____ .

9. What benefits are you getting from OMPFC with regard to selected seed supply?

1. Quality seed 2. Sufficient Supply 3. Timely availability 4. Reasonably good cost

5. Others, specify_____ .

E. The Role of OMPFC in Agro-chemicals Distribution

1. Are you using agro-chemicals for your farm practice?

1. Yes 2. No

2. If your answer for question one is yes, where do you get it?

1. Market 2. OMPFC 3. Agriculture and Rural Development Office 4. Other Coops

5. Others, specify _____ .

3. While comparing the cost, quality and quantity of agro-chemicals supplied by OMPFC with that of other suppliers, how do you rate the ones from OMPFC?

1. Very Good 2. Good 3. Fair 4. Poor 5. Very Poor

4. Do you have problems with regard to agro-chemicals supply?

1. Yes 2. No

5. If your answer for question 4 is yes, what are they?

1. High cost 2. Not availability in quantity 3. Poor quality

4. Others, specify _____ .

6. Are you using the recommended rate of agro-chemicals per plot of land for a particular crop type?

1. Yes 2. No

7. If your answer for question 6 is no, what is your reason/s?

1. High cost of agro-chemicals 2. Lack of knowledge about the right dose per plot of land for particular crop 3. Scarcity on the local market 4. Others, specify _____ .

8. What benefits are you getting from OMPFC with regard to agro-chemicals supply?

1. Quality agro-chemicals 2. Sufficient Supply 3. Timely availability 4. Reasonably good cost 5. Others_____ .

F. The Role of OMPFC in Delivering and Adoption of Agricultural Technologies

1. What are the contribution of OMPFC with regard to adoption and transfer of modern farm technologies?

1. Transferring modern farm technology as it is
2. Working as a link between farmers and research centers
3. Identifying Problems of farmers
4. Adoption of farm implements
5. Distribution of farm implements with low cost

2. Specify what modern farm implements you getting through OMPFC

1. Plows 2. Sprayer 3. Sickle 4. Hand Wheels 5. Water Pump Motors 6. Others, specify _____ .

3. Do you think these agricultural Implements increase your efficiency?

   1. Yes 2. No

4. If your answer to question no. 3 is yes, rate to what extent.

   1. Extremely very high 2. Very high 3. Medium 4. Low 5. Very low

5. Comparing the traditional and modern (adopted) plow, with what magnitude does the adopted one improved your efficiency?

   1. One and half fold times 2. 2 fold 3. 3 fold 4. 4 fold 5. Others, specify _____ .

6. Do you think these implements contributed for the increase in your income?

   1. Yes 2. No

7. If your answer to the above question is yes, to what extent?

   1. Extremely very high 2. Very high 3. High 4. Medium 5. Low

8. What are the main problems with regard to using modern agricultural technologies?

   1. High Cost 2. Unavailability 3. Problem in adoption 4. Scarcity

   5. Lack of awareness 6. Others, specify _____ .