Mekelle University

The School of Graduate Studies

Faculty of Dry land Agriculture and Natural Resources

Evaluation on Grain Marketing Efficiency of Merkeb Multipurpose Farmers' Cooperatives Union

By

Seid Ahmed Siraj

A Thesis

Submitted in Partial Fulfillment of the Requirements for The

Master of Science Degree

In

Cooperative Marketing

Advisor

G. Veerakumaran (PhD)

Mekelle

March 2008

Biography

The author was born in July 14, 1961 in Dessie. He attended elementary school at Muslims' public School Dessie. He completed his secondary education at W/o Sihin Comprehensive Senior Secondary School. He joined the Addis Ababa University Faculty of Social Sciences, where he studied Applied Sociology and graduated with B.A. degree in 1983.

After completing the 1st degree education, he assigned to work for the Ministry of Labor and Social Affaires at different positions for the Bale Administrative Region Department of Labor and Social Affairs. Since 1993 _ 1995, he transferred to work for the Amhara Region Bureau of Labor and Social Affairs. From 1996 – 2006 he joined the Commission for Sustainable Agriculture and Environmental Rehabilitation for the Amhara Region where he assigned to work at the capacity of senior socio economist

The author in his professional carrier assigned to accomplish various tasks, the major ones include: he participated in the study for the Regional Conservation Strategy. He joined the Kobo – Girana Valley Development Study Project in 1996 to undertake the feasibility study finalization and program formulation report. He participated in a team organized at regional level to undertake a Household Level Socioeconomic Baseline Survey for 56 woredas of the Amhara Region. Further he works as a team leader to accomplish a Regional Inventory of Irrigation Land and Water Resources covering all woredas of the Amhara Region

He joined the School of Graduate Studies at Mekelle University in 2006 and has studied for Msc.Degree in Cooperative Marketing. The author is married and has two sons and one daughter.

Abstract

Evaluation on Grain Marketing Efficiency of Merkeb Multipurpose Farmers' Cooperatives Union and the Affiliates

By

Seid Ahmed Siraj. B.A. in Applied Sociology

Advisors: G.Veerakumaran PhD

The Ethiopian farmer in its marketing tradition usually inflicted by different negative outcomes of market particularly lack of bargaining power and internal and external pressures to sell his products immediately after harvesting season while massive supply of grain use to bring to the market. The cooperative grain marketing activities in the country is the newly emerging phenomenon. By now it is following a growing trend and affluent everywhere.

The research concentrated on the evaluation of the efficiency and performance of Merkeb Multipurpose farmer's cooperatives union and affiliates in the area of grain marketing. The union has 56 affiliated primary cooperatives having 106,574 individual members being one of the largest cooperative unions in the Amhara Region. This evaluation has been done in terms of operational and pricing efficiency, which are the common parameters of efficiency measurement for marketing.

The operational efficiency of the union and affiliates as disclosed by the survey results is found at its lower level than the expected. They are not well accessed to the individual members where as their competent traders use to penetrate the entire rural areas through establishing grain assembling sites. The storages under the affiliated cooperatives are not well organized and managed. They are unoccupied most of the time in the year after selling the grain while depreciating every year exposing the cooperatives for continuous losses.The technical efficiency of traders is by far better than the organized cooperative system. They hold the upper hand and able to attract farmers through provisions of interest free loans for immediate money demands, forwarding the prevailing market prices of grain. They could purchase more than 70 per cent of the marketed grain. Farmers are hesitating to work with cooperatives and more than 30 per cent dissatisfied with the marketing methods of cooperatives.

Traders are benefiting from the marketing margins of grain trades through acquiring 18.06 per cent 0f marketing margin (70.3 per cent) from maize crop in the 2003/04. The trend was reverted in 2004/05 where the share of the union improved to be 11.4 from 4.86 or (from18.9 to 66.6 per cent.). Regardless of this improvement, the union by now withdraws itself from grain marketing fearing the VAT registration. Yet, grain marketing should be the priority area of the union and affiliates since they are the organizations of farmers whose interest is improving the bargaining power in the grain marketing system.

As per the results of the survey all common problems of cooperative societies are also observed in the union and the affiliates such as poor management, ineffective execution of various functions, corruption and negligence of responsibilities of the cooperative functions. As far as cooperatives are new forms of farmers' organization in the rural Ethiopia, they lack the required capacity to promote the functions of marketing and even the management of cooperative organizations. It is therefore necessary to take immence intervention in the area of capacity building, provision of inputs, and continous awerness creation among members to remove the misconception about cooperative societies that developed from the previous socialist policies of the military government.

Declaration

This is to certify that this thesis entitled "Evaluation on Grain Marketing Efficiency of Merkeb Multipurpose Farmer's Cooperatives Union" submitted in partial fulfillment of the requirements for the award of the Degree of M.sc. in Cooperative Marketing to the School of Graduate Studies, Mekelle University, through the Department of Cooperatives, done by Seid Ahmed Siraj, Id.No.FDA/GR20/98 is an authentic work carried out by him under my guidance. The issue embodied in this project work has not been submitted earlier for award of any degree or diploma to the best of my knowledge and belief.

Name of the student: Seid Ahmed Siraj Signature & date _____

Name of the supervisor Dr G.Veerakumaran Signature & date _____

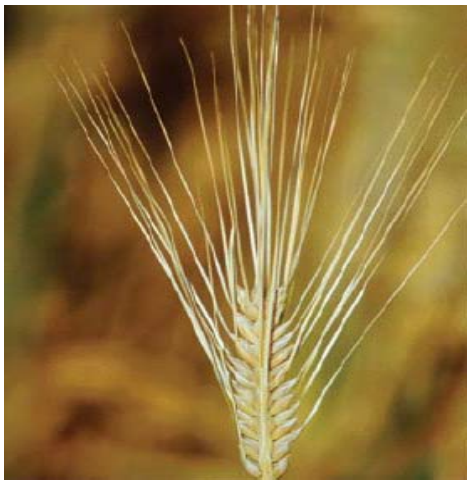


Table of Contents

Biography i
Abstract ii
Acknowledgement v
List of Tables vi
List of figures viii
Acronyms and Abbreviation ix
Defintions of concepts and key terms xi
Chapter 1: Introduction 1
1.1. General 1
1.2. Statement of the Problem 4
1.3. Purpose of the Study 6
1.5. Objectives of the Research 8
Chapter 2: Literature Review 9
2.1. Introduction 9
2.2. Grain production 9
2.3. Grain Marketing, Policies and Policy Changes 17
2.4. Summary of literature 38
Chapter 3: Materials and Methods 40
3.1. Introduction 40
3.2. Methods Applied 41
3.3. Materials and Manpower 51
3.4. Limitations 52
Chapter 4: Results and Discussions 53
4.1. Introduction 53
4.2. Analysis and Interpretation 54
5. Conclusions and Recommendations 118
5.1. Conclusions 118
5.2. Recommendations 122
6. References 124
7. Annexes i
7.1. Annul prices and price indexes of selected crops i
7.2. Data collection formats v

Acknowledgement

This research work would not have been possible without the support and encouragement of various individuals. First, I wish to express my sincere appreciation to Dr. G. Veerakumaran for his excellent and brotherly guidance for providing me with all the necessary opportunities to complete this study. It is truly a rewarding experience to be led by an advisor who can provide guidance, initiatives, support and constructing criticisms on literally all aspects of a dissertation of this type. I am greatly indebted to the external and internal examiners and the chair man for the thesis defense. It is my great interest to appreciate the staff of the faculty of Dry land agriculture and department of cooperatives of the Mekelle University for their respectful and brotherly supports extended in all my activities.

My postgraduate study and this dissertation research could be possible through the sponsorship of the ADB and the MWR, KIWDP, and BWRoAR, I indebted to all. I greatly appreciate the ARARI for their financial support afford to my research work. The assistance of my wife W/ro Senait Semretu and my children Abdurahman Seid, Miftah Seid and Rahma Seid in all the activities of the research was necessary to complete the work and really did it with full interest and good expectations. The supplication of my beloved mother for my success is undeniable and I ought to extend lovely gratitude to her.

I am indebted to my friends Ato Yasin Worke and Ato Tafese Kasa Goji and Ato Samuel Yitbarek for their unfailing material, financial and moral supports exerted for the successful accomplishment of the research work. I have to appreciate the contribution of Ato Abdu Mohammed who made a painstaking reading and extend a valuable comment to maintain the quality of the report. I am also indebted my appreciation to Ato Muluken Lakachew for his brotherly moral and material supports and my colleagues in the BWRDoAR for their earnest and truthful supports. I really extend my appreciation to the library and GIS services of BoFEDAR made a great contribution to my research through providing valuable documents and materials that were necessary to the research

Finally, and the best of all, our Creator Allah, who has provided me the capacity, knowledge and courage that enable me to successfully complete this work, to Him be all the praises and peace be upon His final Messenger

List of Tables

Table No	Table title	page
Table 1.1.	Estimated Population and Per Capita Grain Available since 1975 in Ethiopia	12
Table 2.1	Areas, Production and Yield of Crops for Private Holdings, Meher Season 2007	20
Table 2.2	Land holding area in Ethiopia and the Amhara region 2006/07	21
Table 2.3	Populations, Food Production and Landholding in Ethiopia 1960 – 1990and 2005/06	22
Table 2.4	National Productions of Cereals, Pulses and Oilseeds 1980 - 2007	22
Table 2.5	Trend of Cultivated land for cereals (2004/05, 2005/06 and 2006/07) for Meher Season	23
Table 2.6	Ethiopia - Total Fertilizer Balance for 2004-2005 (in tonnes)	26
Table 2.7	Traditional Surplus Producing Areas and Type of Common Crops in Ethiopia	26
Table 2.8	Ethiopia –Grain Surplus/Deficit in 2006 – Estimates	27
Table 2.9	Production and Marketed Supply of Grain Peasant Sector (Meher) 1995/96	29
Table 2.10	Average Annual growth of export agricultural products in percent	35
Table 2.11	Unions and Affiliated Cooperatives and Members in Ethiopia 2006	44
Table 2.12	Cooperative Data at Regional and Zonal Level of the Amhara Region 2005/06	45
Table 2.13	Grain and other products marketed through regions in the year 2004	46
Table 3.1	Geographical Coordinates of the Survey Woreda	54
Table 3.2	Total Population and Density per Sqkm of the Study Woreda as of 2006	55
Table 3.3	Size of Cultivated Land in South Gonder and West Gojjam Zones 2006	56
Table 3.4	List of Woredas and Kebeles Covered by the Survey	59
Table 4.1	Distribution of farmers by their age and marital status 2007	67
Table 4.2	Member farmers by age group and size of households 2007	68
Table 4.3	Distribution of HH size by area of cultivated land	68
Table 4.5	Cooperative members by level of education attained	69
Table 4.6	Sizes of livestock per household by class of stock2007/08	70
Table 4.7	Number and percent of livestock ownership by survey woreda in 2007/08	70
Table 4. 8	Type of houses and other shelters by construction materials	71
Table 4.9	Membership growth since establishment of primary cooperatives	72
Table 4.10	Annual membership developments in primary cooperatives since2003	73
Table 4.11	Reasons to join the cooperative by age group of respondents	73
Table 4.12	Distribution of responses on the initiator to join the cooperative	74
Table 4.13	Distribution of members by the year of joining the cooperative	74

Table 4.14	Cooperative leaders by level of education 2007	76
Table 4.15	Employees of the union and affiliated cooperatives by level of education	77
Table 4.16	Office terms of the primary cooperatives management committee	78
Table 4.17	Evaluative ideas of members on the existing cooperative leadership	79
Table 4.18	Responses on the reason not attending cooperative meetings	80
Table 4.19	Households by range of cultivated land (ha) in 2007	82
Table 4.20	Farmers applied improved seeds and average cost incurred	85
Table 4.21	Farmers applied chemicals for grain production in 2006/07	85
Table 4.22	Utilization of labor by sources for grain production	86
Table 4.23	Areas and production of cereal crops in Amhara region, 2007	87
Table 4.24	Distribution of the Type of Food Grain Produced in the Study Area	88
Table 4.25	Cost of production versus household expenditure per HH in the survey area in 2007	89
Table 4.26	Average expenditure of households for grain production in Birr	90
Table 4.27	Summary of costs and volumes of grain production in 2007	90
Table 4.28	Distribution of grain by their maximum moisture contents for proper storage	92
Table 4.29	Shelf Life of Farmers' Products by Type of Storage Problems	93
Table 4.30	Type of stores and carrying capacity in the cooperatives 2007	94
Table 4.31	Shelf life of crops in the warehouses of primary cooperatives	96
Table 4.32	The type of transport to take grain to the market by survey woreda	97
Table 4.33	The walking hours required reaching the nearest market and range of hours	97
Table 4.34	The Proportion of Grain Marketed to the Total Production	100
Table 4.35	Per cent distribution of the farmers by type of grain purchasers	100
Table 4.36	Distribution of farmers by age and type of grain purchasers	101
Table 4.37	Farmers by their age group and the reason to prefer particular purchaser	102
Table 4.38	Farmers by age group and marketing relation with cooperative found useful	103
Table 4.39	The responses on satisfaction with the method of marketing of cooperatives	103
Table 4.40	Farmers having problems of selling grain in local markets by type of problem	104
Table 4.41	Production of grain in quintals by type of problem of selling products	104
Table 4.42	The annual storage cost of primary cooperatives since 2002/03	106
Table 4.43	Seasonal Handling Cost in Birr of Primary Cooperatives 2002/03 – 2006/07	108
Table 4.44	The capital Costs of grain marketing by primary cooperatives	109
Table 4.45	The annual marketing costs of primary cooperatives	110
Table 4.46	Selling price of maize, beans and rapeseeds within the market chain	111
Table 4.47	Grain marketing margin for selected crops in the years 2003/04 & 2004/05	111
Table 4.48	Changes in grain prices over time in the survey area	112
Table 4.49	Reasons given by farmers for price changes over time	112
Table 4.50	The percent of grain sold by type of crop grown in 2006/07	113
Table 4.51	Total production of grains in quintals by type of problem of selling products	113
Table 4.52	The price index of cereals and pulses for the year 2006/07, Amhara Region	114
Table 4.53	The share of primary cooperatives in grain purchases 2006/07	116

Table 4.54	The market price makers in rural markets by educational status of farmers	118
Table 4.55	The walking hours require reaching the nearest local market by survey woreda	120
Table 4.56	The views of member farmers on marketing activities of cooperatives	121
Table 4.57	The gross profits of primary cooperatives since 2003	122
Table 4.58	Net profit and loss of primary cooperatives since 2003/04	122
Table 4.59	Trends of food supply and production in Amhara region	124
Table 4.60	Annual prices and price indexes/quintal for selected crops	124

List of figures

Fig No	Title	Page
Figure 1	Cultivated Land by Crop Type in Ethiopia and Amhara Region 2006/07	10
Figure 2	Survey Woredas within the Political Map of the Amhara Region	47
Figure 3:	Distribution of Cooperative Members by Five Years Age Group	56
Figure 4	Distribution of Responses on Frequency of Invitation for Meetings	70
Figure 5	Fertilizer Utilization/Ha of Cultivated Land in the Study Area 2007	73
Figure 6	Percent of Households Producing Grain and Average Volume/Hh (Qtls)	78
Figure 7	Typical Traditional Storage in the Survey Area	82
Figure 8	Abchikli Coop Warehouse	85
Figure 9	Wotete Abay Cooperative Warehouse	85
Figure 10	Average Walking Distance in Hrs to the Nearest Local Market	88
Figure 11	The Distribution of Farmers' Responses in Relation to Purchaser Preference	91
Figure12	Intra Year Price Fluctuation of Cereals and Pulses (2006/07) Amhara Region	105
Figure 13	The Price Fluctuation for in Bahir Dar Market for the Year 2006/2007	105
Figure 14	Share of Grain Salers to Primary Cooperatives	106
Figure 15	Sources of Market Information for Farmer	108
Figure 16	Summary of the Problems of Primary Cooperatives by Major Category	117

Acronyms and Abbreviation

AAU IDR	Addis Ababa University, Institute of Development Research
ACE	Agricultural Cooperatives in Ethiopia
ADB	African Development Bank
ADLI	Agricultural Development Led Industrialization
AISE	Agricultural Input Supply Enterprise
AMC	Agricultural Marketing Corporation
ANRS	Amhara National Regional State
ARARI	Amhara Region Agricultural Research Institute
ANRS BoPED	Amhara National Regional State Bureau of Finance and Economic Development
BoTI	Bureau of Trade and Industry
BWRoAR	Bureau of Water Resource Development of the Amhara Region
CIAT	Center Internacional De Agricultra Tropical
CMC,	Coffee Marketing Corporation
CSA	Central Statistical Authority
DA	Development Agent
DDA	Diary Development Agency
EEA	Ethiopian Economic Association
EGTE	Ethiopian Grain Trade Enterprise
EOPEC	Ethiopian Oilseeds and Pulses Export Corporation
EPRDF	Ethiopian People's Revolutionary Democratic Front
est.	Estimation
ETFRUIT	Ethiopian Fruit
FAO	Food and agricultural organization
F C U	Farmers Cooperatives Union
FCA	Federal Cooperative Agency
FDA	Faculty of Dry Land Agriculture
FDRE	Federal Democratic Republic of Ethiopia
GDP	Gross Domestic Product
GIS	Geographical Information System

GMRP	Grain Marketing Research Project
ha	Hectare
hhs	Households
IFPRI	International Food Policy Research Institute
ICA	International Cooperatives Alliance
KIWDP	Koga Irrigation and Watershed Development Project
m.a.s.l	Meter Above Sea Level
MCDSA	Ministry of Community Development and Social Affairs
MEDaC	Ministry of Economic Development and Cooperation
MMFCU	Merkeb Multi Purpose Farmers' Cooperative Union
MWR	Ministry of Water Resources
MIS	Market Information System
PPS	Probability Proportional to Size
RATES	Regional Agricultural Trade Expansion Support
SNNPR	Southern Nations; Nationalities and Peoples Region
SPSS	Statistical Package for Social Scientists
Sqkm	Squire Kilometer
VAT	Value Added Tax
VOCA	Volunteers in Oversees Cooperative Assistance

Defintions of concepts and key terms

Cooperatives	ICA defined cooperative as an autonomous association of persons united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly-owned and democratically-controlled enterprise a cooperative may also be defined as a business owned and controlled equally by the people who use its services or who work at it
Grain marketing:	Typically is the marketing function that underwent in the area of grain products that begins with learning where to find up to date information on market prices. Successful grain marketing includes managing risks, developing a market, calculating production costs and understanding marketing tools
Marketing	Marketing is the process of planning and executing the conception, pricing, promotion, and distribution of ideas, goods, services, organizations, and events to create and maintain relationships that will satisfy individual and organizational objectives."
Marketing efficiency	is ment the capacity of the marketing system in relation to the technical or operational efficiency and pricing of the marketable products up to the end user of the product
Technical efficiency	in grain marketing deals with all aspects of raising grain production in all marketing functions such as storage, transportation, management skills and processing thus determines marketing costs
Pricing efficency	is an aspect of marketing efficiency also called external efficiency and defined as a Market characteristic that prices at all times fully reflect all available information that is relevant to the Valuation of securities.
Marketing Margin	Is simply defined as a difference between prices at different levels of marketing system. It is also called: Farm-retail price spread, or marketing cost. The Value of Marketing Margin is computed as the difference between prices at different levels of marketing system multiplied by quantity of product marketed
Marketing cost	is the cost of marketing e.g., the cost of transferring title and moving goods to the customer it includes costs of storages, transportation, capital costs handling costs
Market information	is defined as any written, printed, audiovisual, or graphic information, including advertising, pamphlets, flyers, catalogues, posters, and signs, distributed among beneficiaries or to the entire community

Chapter 1: Introduction

1.1. General

Ethiopia with an estimated population of 76, 511, 887, July 2007, is the second populous country in sub-Saharan Africa, following Nigeria. Agriculture is the main economic sector that provides wide employment opportunities for 88 per cent of the active labor force. Its contribution accounts for over 50 per cent of Gross Domestic Product (GDP), 90 per cent of the export earnings. The sector also supplies food to the urban areas and raw materials to the manufacturing sector. A variety of crops are grown seasonally in different parts of Ethiopia, consisting of coffee, cotton, cereals, pulses and oil seeds. The main cash and industrial crops include coffee, pulses, oil seeds, cotton, fruits and vegetables. It is estimated that crop production and livestock husbandry account for over 86 per cent of the agricultural GDP

Ethiopia, in this modern era, remains a country of subsistence agriculture. The average farm size is going down below one hectare approaching to 0.125 ha per peasant households. Since farming is the predominant livelihood for 89 per cent of the population, the problem of land fragmentation may continue further till so many rural people remain unemployed and underemployed. Considerable volume of grain production mostly allotted to cover the household consumption. Only a fraction of the annual harvest is marketed. Even the marketed volume in most cases is not a marketable surplus; the farmers rather sell their grain in the post

harvest with lower prices and purchase in the pre harvest season from traders with higher prices.

Under different conditions, the agricultural sector in the country is not even able to fulfill the most basic and important functions, i.e. the provision of food for the larger and fast growing population. Different literature on Ethiopian issues discussed that agriculture has been in a declining trend for more than four or five decades. The agrarian policies of the imperial government, the military administration and even today have not succeeded in improving the grain production records.

The per capita grain production is still following the trend of a slow pace and the country is still demanding external food aid and other sources to cover the staple food grain demand. Surplus production to cover the available local and export market is still under a precarious condition requiring different measures to be taken by planners and policy makers of the country. The country experienced the worst food deficit, in 1985/86, and this was the outcome of the preceding production year. The deficit seems much better in 2006/07 in which 196 kilogram per capita food grain has been attained.

Table 1.1. Estimated Population and Per Capita Grain Available since 1975 in Ethiopia

Year	Population estimate (million)	Per capita available grain equivalent (kg)	Index
75/76	33.4	154	100
79/80	37.5	179	114
80/91	38.6	153	100
81/82	39.7	143	92
82/83	40.8	170	111
83/84	42.0[1]	135	88
84/85	43.2[1]	119	78
85/86	44.5[1]	104	67
2006/07	76.5	196	127

1. Excluding Eritrea and Tigray 2. Excluding livestock products and food imports

Source: 1. Except the last row, Stefan Brune, the agricultural sector (1990), rural development option, Ethiopia 2. The last row computed from the latest CSA data

The government policies in the pre EPRDF periods, particularly the imperial policies, did not consider agriculture sufficiently they rather maintained the statuesque of the prevailing methods of peasant production without intervention and this doesn't brought about fundamental changes. Lately, the government, in the 1957 to 1967 planning periods, tried to introduce the heavily favored large-scale commercial farms aiming at export promotion. This was considered as a right way to develop the agricultural sector. However, this and other interventions of the government could not attain the desirable development, productivity has rather fallen and the country started to be a staple food importer (Degene, 1990).

The military junta government under its socialist economic system tried to intervene in the agricultural sector. It takes a radical change in its policy like for example the nationalization of rural land and establishment of peasant associations, changing the individual farming in to modern and collective production, giving special privileges in the area of taxation and investment to producers and service cooperatives, introducing large scale state purchases of main food crops, fixing prices of agricultural products, expansion of state farms and the creation of state monopolies in crop exports, promotion of large scale resettlement program and embarking massive villegization . All these measures did not work instead they aggravated the social, political and economic problems of the country.

The latest census report indicates a three percent annual population growth and is expected to double by the year 2010. The level of urbanization is very low; only 15 per cent of the total population lives in the urban areas. Close to 50 per cent of the total population is reported to be under the age of 14 years, implying a very high dependency ratio. All these figures show that unless there is a fast economic growth and promotion of rural occupational diversification, the ever-growing population will be a threat for the national security. One

immediate effect of the population pressure has been diminishing farm size. In 1995/96, about 63 per cent of rural households had less than one ha of holdings (CSA, 2004). Grain marketing is the very important economic activity that contributes for the development of farm economy and provides employment opportunities through the diversification of occupations, creating new job opportunities for the growing labor force.

1.2. Statement of the Problem

Since 1993, following the ratification of ADLI, attempts are under gone by the government and others to bring about improvement in the rural economy. The desired improvement is believed to come along with the development of modern marketing for agricultural outputs and the provision of infrastructure to benefit the majority of households in the agricultural sector. Cooperatives are expected to be an entry point to improve the existing traditional marketing as well as living conditions of the rural population in the country. The country is launching an agricultural development led industrial development policy to withstand the problem of development. Strategies are drawn to implement the policy. It is expected that the strategies need to effectively reduce the key constraints to growth. The creation of opportunities, for instance, to organize mass organization like cooperatives may increase the implementation capacity of rural people. The ability of a country to achieve growth in agricultural productivity and output depends on its ability to make an efficient choice among alternative paths of technical change.

Despite their production potential, small-scale rural producers, particularly grain cultivators, confront serious constraints to earn profit from their resources due to lack of basic infrastructure, limited access to services for production, finance and business development and limited ability to influence favorable policy. Major global trends are rapidly changing the

rural environment, and communities need to devise more innovative ways of using their labor, resources and skills to take advantage of new business opportunities.

Policy makers and community developers are increasingly interested in alternative models for local businesses that will be both responsive to community needs as well as stimulate local economic growth. The cooperative form of business should be an obvious choice. Cooperatives have the potential to foster economic growth at the community and regional level, building on the spirit of cooperation that is already in rural areas. (Kimberly Zeuli 2002)

Thus, the improvement of agricultural marketing through farmers owned organization, particularly to handle the grain and other outputs, will give the farmer an opportunity for bargaining and an outlet for product marketing. The agricultural sector particularly the grain marketing was suffering a lot with a combination of problems. The distinctive problems have been emanated from vagaries of nature; population pressure; government policies. Particularly the government policies were lacking consistency for long periods. Previously there was a complete negligence in the imperial time and excessive intervention of the Derg government to the rural areas and the agricultural management. The other sources of the problem are poor technological and development of infrastructure to the rural areas of the country. Following the overall economic policy changes since 1991, the involvement of private sector and cooperative organizations in the grain marketing is increasing over times

Grain marketing cooperatives unions at present are taking part in the grain marketing activities in many parts of Ethiopia. The cooperative unions in the Amhara Region have started functioning since 2000. Huge volume of grain in the region is marketed by cooperatives organized at primary and secondary (union) level. Their number is ever increasing and covers almost all parts of the Region. The unions are operating the marketing

work in the entire region particularly indulged in grain and agricultural input marketing in Gojjam area. The place is traditionally known for its surplus production of staple crop mainly Teff. In the year 2006/07, there were 28 unions in the region. The larger number 17 unions were in western Amhara zones with 379-affiliated primary cooperatives. The rest 11 with 204 affiliated primary cooperatives have been in Eastern Amhara zones (FCA, 2006/07). The importance of cooperative organization is clear and unquestionable for better agricultural production performance.

However, the efficiency of cooperatives in all aspects of activities needs to be strength to meet the very interests of members. Therefore, it is very essential to investigate the performance efficiency, particularly on the area of grain marketing since it is a key area of activities for agricultural cooperatives. It is necessary to see how the cooperatives are working to handle the marketing and pricing and to empower the agricultural producers in the free market system so as to improve the well being of their members and to develop the organizational efficiency for further and better performance.

1.3. **Purpose of the Study**

Cooperatives are essential and contributing a lot for development. There are misconceptions among the community about cooperatives that emanate from the form of organization they were given during the previous military junta government. They were designed to perform the government program among the rural people particularly to the implementation of party program and to handle the economic and political activities of farmers. Such malfunction of cooperative societies in those previous days developed misconception among the rural and urban communities about cooperative societies. Therefore, it needs unfailing efforts to promote cooperative movement in the country at large.

The researcher has found it necessary to carry out research work in the grain marketing areas of cooperative unions at present. It was aimed to investigate answers for different questions and issues in the area of efficient market chains of cooperatives. The following and similar questions have been raised: Does proper marketing undergo to meet the interests of actors in the market? Are prices transmitted properly to the producers through the cooperatives marketing process? Do farmers produce the right products that consumers want or are they trying to sell what they produce and how are the cooperatives working in this regard? Is the union trying to transform the production system of members into market-oriented based on market signal as the guide for production decisions? Does the institutional capacity of cooperatives to promote various market requirements like credit, market information on prices, supply and demand, grades and standards to producers developed? How can transaction costs be reduced due to the cooperative marketing both for producers and consumers? The researcher has tried to identify, the market actors in the grain marketing; the conditions of social marketing and its influence on producer's decisions, the market share of the cooperative union; the volume and value of grain marketed with cooperatives and other trading organizations in the research area and other relevant issues to grain marketing.

1.4. Significance of the study

The purpose of the study is to evaluate how effective cooperatives are in their grain marketing performance to satisfy the demands of individual members in the grain market. Briefly the research is planned to investigate the marketing performance of cooperatives and to see how members are using the cooperative for the improvement of the traditional marketing activities, largely favoring the buyers who are price makers of the local marketing. Through evaluating the overall grain marketing performance of MMFCU since its establishment (2002), the

research will contribute its part in the identification of marketing problems of cooperatives and forward the required recommendations.

1.5. Objectives of the Research

1.5.1. Major objectives

The overall objective of this study is to conduct a grain marketing assessment referring to marketing activities of cooperatives to meet the demands of producers and consumers in the Amhara Region.

1.5.2. Specific objectives

1. To evaluate the efficiency of the marketing performance of cooperatives from farmers to the consumer
2. To evaluate the market share of cooperatives in the regional grain marketing activities and to measure the satisfaction of the members with the marketing works of cooperatives
3. To identify the grain marketing problems of cooperatives and their members in the research area

Chapter 2: Literature Review

2.1. Introduction

The literature review work of the research focuses on the major areas of investigation for the research. Thus literatures that are concentrated on the grain production, the required input supply, and the surplus and deficit production areas are properly utilized. Other empirical research results for Ethiopia and other African countries on grain marketing have been well assessed. Particular emphasis were given to assess important issues such as government policies and policy changes, local and export marketing of grain in Ethiopia, their marketing costs, the improvement in the marketing system, storages, market information, the involvement of private and government traders in grain marketing. Sufficient attentions were given to those empirical researches on the cooperatives and their grain marketing in the previous periods and at present.

2.2. Grain production

2.2.1. General

Grain production in Ethiopia is almost entirely based on rain fed agriculture and characterized by a dominant harvest (Meher) in November and December, and a secondary harvest (Belg, a short spell) in April and May. Such production is largely common in the Amhara Region where all forms of agro climatic conditions are favorable. The Region has varied agro ecological zones and topography with diversified natural vegetation. Accordingly, the Region

is composed of 10 major agro ecologies (Lakew *et al.*, 2000) and is dominated (38 per cent) by the lukewarm to cool moist zone, which has high agricultural potential (ANRS, 2004). The main crops cultivated in the Region (Table 2.1) are cereals, pulses, oil seeds, spices and perennial crops but largely dominated by cereals in volume of production (Fig 1) as well as in the area coverage of cultivated land. Oilseeds, pulses and fiber crops that are economically important have got lesser attention both in production and area sharing of the total cultivated land.

Table 2.1 Areas, Production and Yield of Crops for Private Holdings, Meher Season 2007

Grain Category	Area (000)			Production in quintals (000)			Yields (qt/ha)	
	Ethiopia	Amhara	Reg Share (per cent)	Ethiopia	Amhara	Reg Share (per cent)	Ethiopia	Amhara
Cereals	8471.9	2767.8	32.7	128798	40188	31	15	14.5
Pulses	1379.0	617.4	44.8	15786	7407	47	11	12.0
Oilseeds	741.8	253.4	34.2	4971	1625	33	7	6.4
Vegetables	95.3	28.5	29.9	3451	496	14	36	17.4
Root crops	189.4	34.2	18.1	14095	2667	19	74	78.0
Fruit crops	50.1	2.1	4.2	4600	215	5	92	103.1
Other crops	484.3	24.1	5	15335	918	6	32	38.1
Total	11411.8	3727.4	32.7	187037	53517	29	16	14.4

Source CSA 2007

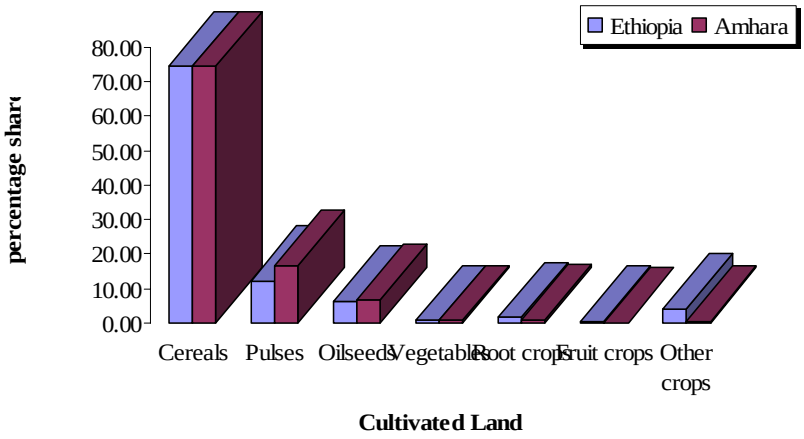


Figure 1 Cultivated Land by Crop Type in Ethiopia and Amhara Region 2006/07
Source CSA 2007

The agricultural production in addition to its traditional practices, which yield very much less, suffers from population pressure (Table 2.2). One immediate effect of the population pressure has been diminishing farm size. In 2006/07, among the farming households, 55 in Ethiopia and 46.2 per cent in Amhara Region had less than one ha of holdings. Less than 1 per cent of the farmers owned holdings greater than 5 ha and these were likely to be concentrated in the sparsely populated areas with low agricultural potential (CSA, 2004).

Table 2.2 Land holding area in Ethiopia and the Amhara region 2006/07

Land holding (ha)	Ethiopia			Amhara		
	Number of households	percent	Cumulative (per cent)	Number of households	percent	Cumulative (per cent)
Under 0.1	743,893	6.1	6.1	241,779	7.4	7.4
0.10 - 0.50	2,982,303	24.5	30.6	570,320	17.4	24.7
0.51 - 1.00	2,982,923	24.5	55.0	707,091	21.5	46.2
1.01 - 2.00	3,292,786	27.0	82.0	1,056,150	32.1	78.4
2.01 - 5.00	2,020,082	16.6	98.6	686,695	20.9	99.3
5.01 - 10.00	160,671	1.3	99.9	24,441	0.7	100
10+	13,602	0.1	100	0	0	0
total	12,196,266	100		3,286,476	100	
Average Holding (ha)	1.21			1.31		

Source: CSA, Agricultural Sample Survey 2006/07, Vol. IV, Report on Land Utilization, Bulletin No. 388,

With declining farm size, it becomes increasingly difficult to practice traditional soil-fertility restoring techniques (e.g. fallowing and crop rotation) and maintain households' livelihoods from the land. Rising population density that contributes for further reduction of farm land typically causes a transition from fallow-based systems to permanent cultivation. This is becoming common for larger parts of Ethiopia except some regions where the population is less dense. In many densely populated areas, farmers plant cereal after cereal to meet their subsistence requirements with little or no application of commercial or organic fertilizer. Small-scale farmers, who have been adopting low-input, low-output, rain fed mixed farming with traditional technologies, dominate the sector.

Table 2.3 Populations, Food Production and Landholding in Ethiopia 1960 – 1990and 2005/06

Year	Population	Landholding	Food output per capita
1960/61	23,550.00	0.28 ha	240.2 kg
1969/70	28,784,400	0.25 ha	242.7 kg
1979/80	36,663,300	0.13 ha	204.4 kg
1989/90	48,648,800	0.10 ha	141.7 kg
2005/06	75,161,000	0.15ha	227.7kg

Source: Compailed from different sources (CSA, MoARD, FAO)

The per capita land holding in the country is decreasing over years since the entire 90 per cent of the population of the country is demanding agricultural land for livelihood on average, small-scale farming accounts for 96 per cent of the total area under crop and more than 90 per cent of total agricultural output (Table 2.3). In addition, small-scale farmers produce 97 per cent of food crops and 98 per cent of coffee. Of crop production, cereals contribute the lion's share of the total (Taddese Kuma, 1999)

Table 2.4 National Productions of Cereals, Pulses and Oilseeds 1980 - 2007

Year	Cereals			Pulses			Oilseeds			Total		
	Area 000ha	Production quintal (000)	Yield/ha	Area 000ha	Production quintal (000)	Yield/ha	Area 000ha	Production quintal (000)	Yield/ha	Area 000ha	Production quintal (000)	Yield/ha
A/ 80/81 - 89/90	4859	55967	11	718	5744	8	240	952	3.9	5817	63560	10.1
B/. 90/91 - 99/00	5831	68506	11.8	1293	6614	5.1	3131	1409	4.5	7136	85992	12
C/. 2006/07	10593	149555	14.1	1379	15786	11.4	741.8	4971	6.7	12714	170312	13.4
Difference												
A to B	972.4	12539	0.8	575.0	870	-2.9	2891	457	0.6	1319	22432	1.9
A to C	5734	93588	3.1	661.0	10042	3.4	502	4019	2.8	6897	106752	3.3
B to C	4761	81049	2.3	86.0	9172	6.3	-2389	3562	2.2	5577	84320	1.4
Percent Increment												
A to B	20.0	22.4	7.3	80.1	15.1	-36.3	1204.4	48.0	15.4	22.7	35.3	18.8
A to C	54.1	62.6	22.1	47.9	63.6	30.1	67.6	80.8	41.8	54.2	62.7	24.6
B to C	44.9	54.2	16.4	6.2	58.1	55.4	-322.0	71.7	32.8	43.9	49.5	10.4

Source: Central Statistical Authority, 1980–2000.and July 2007

.

As portrayed in the Table no 2.4, there were certain improvements in the area of cultivated land and production of major agricultural crops in 1990/91 - 1999/00 as compared to its preceding decade and there was a further improvement in the 2006/2007 agricultural

productions than the last two decades. The agricultural land totally increased by about 22.3 per cent in the reported year. The cultivated land for cereals and pulses has increased by 20 and 15.1 per cent respectively within the reported period and there was a 45 per cent increment of production in 2006/2007 compared to 1990/91 – 1999/00 production seasons. The increment for oilseeds is vigorously high which may relate with the demand of the product in the market but the overall yield for oilseeds is not as high as its land coverage.

The CSA survey report shows the regional distribution of cultivated land and the trend of land use in the regions for the year 2004/05, 2005/06 and 2006/07 (Table 2.5). In this regard Oromiya and Amhara hold the biggest share of cultivated lands. In terms of increments in the cultivated land, Afar, Addis Ababa and Harari were expanding their cultivated land in the report period. The increment of cultivated land at country level for 2006/07 was following an increasing trend from the preceding cropping season; where as the increment in Amhara Region is somewhat lower than the preceding year.

Table 2.5 Trend of Cultivated land for cereals (2004/05, 2005/06 and 2006/07) for Meher Season

Region	Area in Hectare			Per cent Change	
	2004/05	2005/06	2006/07	2005/06	2006/07
Ethiopia total	9,811,071	10,170,911	**10,592,757**	3.67	4.15
Amhara	3,374,253	3570812	3,638,543	5.83	1.9
Share of the Amhara Region	34.39	35.11	34.35		

CSA agricultural sample survey 2007

The crop production in the country is not only affected by population pressure over the cultivated land but it was also affected by the problem of lack of sufficient rainfall and recurrent drought. The use of agricultural inputs like fertilizer and seeds has not yet developed in the country properly and sufficiently.

The solution to chronic poverty and food insecurity is productivity growth. Without productivity growth, incomes and employment cannot raise much over the long run, and

redistribution cannot be effective if there is not much to redistribute. Sustained productivity growth, in the histories of higher-income countries, has involved an evolution from subsistence-oriented, household-level production towards an integrated economy based on specialization and exchange. The movement away from subsistence agriculture makes possible a new set of production possibilities using inputs acquired through exchange. The movement also allows the household and the economy to benefit from the economies of size that accompany specialization. Such innovative work spreads risk of supply and demand shocks over a broader geographic area, and ultimately broadens the household's consumption choices (T.S. Jayne and Daniel Molla 1995).

2.2.2 Input Use

The use of fertilizer and other agricultural input in Ethiopia as many countries in Africa has increased over years since 1980s when the rural development initiative took its leading development program for the country. The totally depends on imports to meet its annual fertilizer requirement The foreign exchange needed for fertilizer importation is financed through loans, donor assistant (grants) and government treasury. Hence, precision in planning and fine-tuning of marketing activities are necessary to ensure timely imports and supplies. In 2004/05, total fertilizer availability amounted to 482 000 metric tonnes comprising 425 000 metric tonnes of new imports for a total value of US$ 122 million and 57 000 metric tonnes of carry-over stocks. However, due to economic capacity differences, agricultural input use in Ethiopia is low as compared to the sub Sahara Africa. Due to this and other factors, the GDP in Ethiopia is incomparable to the other African countries. At present, the use of fertilizer in the Amhara Region is increasing, particularly in the western part including Gojjam and Gonder areas.

The matter is not related with the use of fertilizer but correct timing of fertilizer application is of great practical importance in achieving adequate yield response. However, the distribution problem has meant that farmers often cannot apply fertilizer at the right time. For instance, though the delivery of inputs in 1994 has been considered better compared to the previous years, 67 per cent of the surveyed farmers still reported that the delivery was not on time (KUAWAB/DSA, 1995*)*. Not recognizing the different planting calendar of the various regions, fertilizers are mostly scheduled to be delivered in June and July. The distribution practice does not consider the planting time of maize, sorghum and 'Belg' crops, which is 2 to 3 months earlier than June. (Mulat Demeke, *et al.* 1997)

T.S. Jayne and Daniel Molla (1995) revealed in their research report that agricultural intensification has involved a coordinated system of input supply and delivery, farm finance, reliable access to output markets, and an effective agricultural research and extension system. Sustained yield growth of 3 per cent or more per year has almost never occurred without a coordinated system of input delivery and output markets.

The state-owned Agricultural Input Supply Enterprise (AISE), and the two private companies Ambassel trading house and Wondo trading company have been dominating the fertilizer sector over the years and are currently holding about 79.2 percent of the market. Cooperative unions including the Merkeb Union and primary agricultural service cooperatives are distributing significant quantity of fertilizer about 20.8 percent of the total supply Table 2.6, indicating that the role of cooperatives in fertilizer marketing is picking up. Apart from this, only few private retailers are involved in fertilizer sales and distribution.

Table 2.6 Ethiopia - Total Fertilizer Balance for 2004-2005 (in tonnes)

Enterprise	Opening Stock			Import			Total Supply			% Share
	DAP	Urea	Total	DAP	Urea	Total	DAP	Urea	Total	
AISE	4363	25627	29990	125000	99521	224521	129363	125148	254511	66.7
Ambassel	6580	5048	11628	50000	25000	75000	56580	30048	86628	22.7
Wondo	14143	1493	15636	25000		25000	39143	1493	40636	10.6
Total									381775	79.2
Merkeb				50000		50000	50000		50000	50.0
Lome Adama				25000		25000	25000		25000	25.0
Yerer					25000	25000		25000	25000	25.0
Total									100000	20.8
Total	25086	32168	57254	275000	149521	424521	300086	181689	481775	
Sales							224819	121735	346554	
Closing							75267	59954	135221	

Sources: Agricultural Input Market Department, Ministry of Agriculture and Rural Development (MoARD)

2.2.3. Surplus and Deficit Production

Grain production in the country is at a deficit trend for so many years. This may be related with the above conditions and other man made and natural hazards or even the work tradition of the population or it may be the results of backward technological application and even the combination of all. The country as many documents show has agriculturally surplus and deficit areas Table 2.7. Though poket areas, both grain-surplus and deficit locations in Ethiopia are spatially dispersed to many parts of the country. As per the available statistical information surplus production areas are particularly known for cereal crops Table 2.7. The areas are located in Amhara (Gojjam Area) and Oromiya (Shoa, Wolega and Arsi areas) (Eleni, 2001).

Table 2.7 Traditional Surplus Producing Areas and Type of Common Crops in Ethiopia

Region	Production of Teff (per cent)	Production of wheat (per cent)	Production of maize (per cent)
Gojjam	55	25	15
Shewa	28	0	45
Wollega	4	0	34
Arsi	0	63	0

Source: Eleni Z.G. Medihine 1999

Other than these localities, all regions of the country except Oromiya and Benishangul Gumuz are under the influence of food deficit production Table 2.8. The food deficits areas need enough supply from the surplus areas or from abroad either food aid or import marketing

Table 2.8 Ethiopia –Grain Surplus/Deficit in 2006 – Estimates

Region	Population' 000s	Gross Production (tonnes)	Net Production (tonnes)	Use per person per year(kg)	Consumption (Requirements) (tonnes)	Surplus/ Deficit(in tonnes)
Tigray	4 345 471	934 307	773 751	202.85	881 479	-107 728
Afar	1 398 405	40 053	31 959	147.71	206 564	-174 605
Amhara	19 166 160	4 349 700	3 601 706	209.61	4 017 419	-415 713
Oromiya	26 565 686	9 206 163	7 539 627	188.62	5 010 793	2 528 834
Somali	4 340 323	87 736	68 706	159.94	694 187	-625 481
Benishan - Gumuz	627 690	199 660	161 807	208.27	130 728	31 079
SNNP	14 910 211	2 243 338	1 844 676	99.80	1 487 979	356 697

Source: FAO Global Information and Early Warning System on Food and Agriculture World Food Programme S pecial Report FAO/WFP Crop and Food Supply Assessment Mission to Ethiopia 24 February 2006

The information released by the Amhara Region Bureau of Finance and Economic Development for the year 2005 shows that the regional production or self-sufficiency ratio from major crops is sufficient only to meet 81.1 per cent and 73.6 per cent of the standard requirements respectively. The average ratio of food aid to total production in the region is estimated to be 8.4 per cent for the period indicated

2.3. Grain Marketing, Policies and Policy Changes

2.3.1. Local Grain Marketing

The farmer has no bargaining power in his grain marketing. There were internal and external pressures on him to sell the marketable crop based on the interests of buyers in the local market. The producer is generally in a weak bargaining position because of his need to sell immediately after harvest in order to pay his debts to landlords, merchants and tax authorities. In addition, he suffers from collusion between buyers in the market place, limited market information, uncontrolled weights and measures manipulated to his disadvantage by merchants, and the sheer effort required for him to bring his produce to market over long distances and difficult terrain which may induce him to sell even if the price is low (Johan Holmberg, 1977). Even in the period of Derg the farmer was forced to sell his produce with a price set in by Agricultural Marketing Corporation (Befekadu, *et al.* 1990).

Agricultural productivity may be the outcome of various integrated activities of producers, development promoters and government, but the most outstanding contributor is the emergence of efficient and reliable grain markets for market actors. Reliable markets (a) provide the means to adopt cost-reducing technologies at various stages in the food system (e.g., seed and fertilizer distribution); and (b) offer incentives for rural households to shift from a subsistence-oriented pattern of production and consumption to more productive systems based on specialization and gains from exchange (e.g., generating greater amounts of income from high-valued crops and non-farm activities and using the income to buy food). Sustained improvements in household access to food in Ethiopia will require the development of more reliable food and input markets, involving a movement away from subsistence-oriented, household-level production toward an integrated economy based on specialization and exchange (T.S. Jayne *et al.* 1995).

The insufficient productivity of agriculture coupled with forced sale of marketed surplus with out planning the household annual food requirement, the rural households usually tend to purchase staple crops from market. The potential adverse effects of purchasing too much should not be minimized in a country such as Ethiopia. For example, nationally representative data from 1996 indicate that about 48 percent of Ethiopia's rural population is a net buyer of grain, i.e., they only purchase grain or purchase more than they sell (Daniel and Jayne 1996).

2.3.1.1. Marketing Costs

Market dependent households among the rural population are likely to be adversely affected by programs that increase the price of grain in local markets, such as massive purchase of government and other aid organizations (Table 2.9). In fact, it is possible that some households that would have had sufficient income to purchase their residual grain requirements from the market may no longer be able to do so if local purchase programs appreciably raise local

market prices (Wolday Amha, *et al.* 1997). The ever-increasing marketing costs such as the cost of handling, transportation, storage and capital costs are alarmingly increasing the prices of grain to the local consumers. Those households like the urban residents have great interest to have grain suppliers throughout the year; particularly the need for grain marketing cooperatives is very high. Sholars dis agree with massive grain purchase from local markets due to the fact that it may affect the market dependent population of the urban and rural areas. Ths situation may disturb the supply and demand balance of grain. They suggest organized peasnt marketing like cooperatives to maintain the marketing system normal. **(**Mark Lundy *et al*., August 2004)

Table 2.9 Production and Marketed Supply of Grain Peasant Sector (Meher) 1995/96

Grain	Production	Grain Marketed		EGTE Purchases		EU Purchases	
	Tons	Tons	Per cent	Tons	Per cent Marketed	Tons	Per cent Marketed
Maize	1,696,801	506,436	29.8	29,825	5.9	42,000	8.3
Teff	1,313,035	409799	31.2	9,468	2.3		
Wheat	836,250	233,904	28	22,223	9.5	24,000	10.3
Barley	853,979	217,661	25.5	420	0		
Sorghum	1,342,251	228,613	17	2,315	1	42,000	18.4
Millet	200,230	38,027	19	70	0.2		
Pulses	583,346	244,080	41.8	2,849	1.2		
Oilseeds	148,956	115,975	77.9	4,435	3.8		
Total	6,974,956	1,994,495	28.6	71,605	3.6	108,000	5.4

Source: Asfaw and Jayne, 1996 and EU, 1996

Note: * This does not include the marketed grain by state farms and private commercial farms.

2.3.1.2 Improving Marketing System

The researchers continue their discussions stating that the performance of the grain marketing system in a country strongly influences the profitability of fertilizer use by farmers. A more efficient marketing system can help pull grain quickly out of surplus areas, thus alleviating the localized gluts (oversupply of grain) that depress farm prices, and more quickly deliver grain to deficit areas. Measures that are likely to improve the efficiency of the grain market include investment in timely and widely disseminated market information, improved storage facilities, and improved road infrastructure both within Ethiopia and between Ethiopia and its regional

neighbors. A considerable part of the food price instability problem in Ethiopia is related to the high cost of transportation, which creates a large wedge between import and export prices (Wolday Amha, *et al*. 1997).

Efforts to reduce grain-marketing costs should be viewed as a critical component in the overall strategy to stimulate fertilizer demand and crop productivity. This conclusion underscores the importance of viewing productivity growth from a 'systems perspective' in which investments and policy changes made at one stage in the food system (e.g. marketing) may influence the viability of investments made at other stages (e.g. technology adoption at the farm level).

Marketing costs in the country and the Amhara Region is too high tempting the market actors to perform the grain marketing activities and put forth high pressure on consumer prices in the local market. In the country, marketing costs account for about 40 per cent to 60 per cent of the total price spread between producer and retail prices. The reduction of these costs represents a major opportunity to improve farm production incentives and simultaneously make food more affordable to low-income consumers (GMRP, 1997).

2.3.1.3. Storage Systems

The other important contributor for better performance in grain marketing is the efficiency of the storage system. The need for storage comes from the inherent characteristic of agricultural production, which is seasonal whereas demand for grain is generally continuous throughout the year. Storages are designed and expected to allow a smooth, and as far as possible, uninterrupted flow of product into the market (FAO Agricultural marketing, Rome, 1997).

In Ethiopia as it is common in other developing countries, agricultural supply often exceeds demand in the immediate post-harvest period. The glut during the post harvest period reduces producer prices and wastage rates can be extremely high. The grain, after the glut passed, can be in a short supply. Farmers store some volume of the grain produced speculating better market price. The storage function is one of balancing supply and demand for grain marketing. Both growers and consumers gain from a marketing system that can make produce available when it is needed using efficient and effective storage service.

Good storage system and handling has great contribution for farmers in various regards, among others to withstand price fluctuation, the effect of losses in quality and quantity of grain that may caused by external agents and misuse of household members. The use of insecticides to protect the grain from rodents' weevils and termites while it is in the store will reduce the loss by half. There were significant gains from storing *Teff* for later sale in the 1998 season. Farm gate grain prices rose by 23 per cent and straw prices doubled between January and August 1998. Farmers can increase net income by more than 40 per cent by selling in August instead of January (Sasakawa Global 2000).

2.3.1.4. Market Information

Market information for grain market is one basic necessity for farmers to withstand the volatility price nature of staple food grain. This is an essential area for government role in the free market system in the country like Ethiopia. Some researchers argue that at present conditions in Ethiopia's development, the government must take a lead role in creating a public market information system to facilitate private production and marketing activities. In the absence of such a role, information will remain unreliable and poorly distributed, market performance will be hampered, and both farmer and consumer incomes will be reduced (David Tschirley *et al.*, 1995).

The alternative types of media as recommended by researchers for disseminating information to market participants especially in the rural markets are: radio, newspaper and posted bulletins. Weekly radio broadcasts appear to be the best means for reaching farmers in a timely way. Newspaper reports would be a good complement to radio reports, and may be better for reaching urban traders and consumers. Where these options are not feasible, posted bulletins in villages may be the only available option. For reaching policy makers, regularly published bulletins (monthly or quarterly) may be a good means of dissemination (David Tschirley, *et al*., 1995)

Efficient and equitable performance of food markets, however, may be impeded by high uncertainty about prices facing participants in various markets. A lack of timely and accurate information for market participants contributes to poorly functioning food markets and leads many farm households to rely on relatively low productivity subsistence production for most of their food needs. Access to timely and accurate market information is thus one important element for transforming Ethiopia from a subsistence-oriented, low-productivity, agriculturally based economy to a modern, exchange-oriented, high-productivity economy. Reducing uncertainty in grain marketing through the dissemination of timely and accurate information to market participants, may, by reducing marketing risks and margins, serve both to improve production incentives for grain producers, and to drive down prices for grain consumers (Staatz, *et al.*, 1992).

Improving farmer and trader awareness of prices in various markets throughout the country promotes grain system efficiency by: (1) encouraging grain flows from relatively surplus to relatively deficit areas, thus helping stabilize prices over space; (2) improving farmers' decisions and confidence regarding what to plant, how much to invest, and where and when to

market their produce; and (3) promoting a more competitive marketing system, which will benefit both producers and consumers (Eleni Z. Gabre-Madhin, 2001)..

2.3.1.5. Involvement of Traders in Grain Marketing

The contribution and involvement of traders in grain marketing is so vast to the extent of overwhelming the entire activity of the market. A research finding shows that wholesale traders are the dominant actors in the grain marketing activities in the country. Wholesale traders are the principal actors in inter-regional grain movement. They handle about 45 per cent-marketed grain sold annually by farmers and state farms. At a national level, grain wholesale trade seems to be dominated by a small per cent of merchants; the largest 10 per cent command about 43 per cent of the volume traded at wholesale level (Gebremeskel Dessalegn, *et al.,* 1998**)**

The private traders are increasing in number in the free market and liberalization period using the policy provision of the government. In the post-liberalization period, contrary to the pre-liberalization period, the activities of private grain traders have increased tremendously reaching at a capacity to handle up to 95 per cent of the grain marketed by the farmers in some harvesting seasons (Asfaw *et al*., 1997). Numerically, the concentration of traders in a grain market inevitably increases the competition for price among firms which will benefit the producing farmer through paying better price.

Some empirical researches (Gebremeskel *et al.,* 1997) indicate that the average four firm concentration ratios for all grain were found to be greater than 33 per cent only in 3 of 11 markets. While for individual cereals, the concentration ratio was less than 33 per cent in 7 of 9 markets for Teff, in 4 of 6 markets for wheat and in 3 of 6 markets for maize.

The analysis of microeconomic trader behavior reveals that Ethiopian grain wholesalers are generally small-scale, personalized enterprises. Traders are quite competitive in that physical marketing costs related to transport, handling, and other marketing activities represent 83 per cent of gross margins, and traders' net margins are less than 5 per cent of the sale price. Social capital, measured by the network of trading contacts available to each trader, is important in enabling traders to find trading partners more readily. Although traders invest in contacts in distant markets as well as in regular local trading partners, less than one-third of trading networks are based on a common ethnic identity (Eleni Z. Gabre-Madhin, 2001).

2.3.2. Export marketing

Only 40 years ago, Ethiopia exported an average of 90,000 tons of grains and legumes to its East African and Arabian Peninsula neighbors annually (*Hailu 1991*). Cereals production has remained flat since the early 1970s, however. With more than a doubling of population in the 1970-90, available food per capita has declined (*Johan Holmberg 1977*). The country has become increasingly dependent on supplies of donated food aid in recent years Yet Ethiopia endowed with a wealth of natural resources: diverse agro ecological systems, many with adequate rainfall and soils fertile enough to sustain a wide variety of crops. Only 40% of potential arable land, and less than 5% of irrigable land, is currently being used (Julie A. Howard.1995)

The contribution of pulses and oilseeds in the export market relatively to others is immense except the period of Derg. Prior to 1974 (the imperial era), there has been a modest growth in the total value of export earning

Table 2.10 Average Annual growth of export agricultural products in percent

	Growth Rates in Total and Major Components of Export				
Period	Total Export	Coffee	Hides & Skins	Pulses& Oilseeds	Chat
1960/61 - 1973/74	8.2	2.7	9.1	13.1	0.8
1974/75 - 1990/91	4.7	7.1	5.6	2.4	69.8
1991/92 - 2000/01	22.5	27.4	14.1	221	122.3
1960/61 - 2000/01	10.2	10.3	7.1	59.4	59.1

Source Debel Gemechu Exports and Economic Growth in Ethiopia:

.

The average annual growth rate of real value of exports was 8.2 percent. During the Derg regime (1974/75-1990/91), the growth rate declined to 4.7 percent. The decline can be largely attributed to the poor performance in the export of pulses and oilseeds. During this regime, export revenue from chat has demonstrated an average annual growth of 69.8 percent compared to 0.8 percent during the imperial regime. (Debel Gemechu, *2002*)

2.3.3. Policies and policy changes

It is important to discuss the policy issues on land tenure system in Ethiopia tracing back to the last two forms of government to get the true picture. The imperial government was relied on landlord – tenant relations in rural areas, where as it acquired a capitalistic nature in the urban economy. During this time agricultural (grain) marketing and pricing policies were governed by the operation of the market *(*Befekadu, 1978)

During the socialist period, the Ethiopian government maintained a heavy interventionist approach in its grain marketing policies. Through marketing parastatals and cooperatives, the government controlled grain prices and restricted inter regional grain movements and private traders' participation in the grain trade (Asfaw Negassa *et al.,* 200*4*). Even prior to this period during the imperial government, though there was a free market system, the policy towards grain trade was favoring the absentee landlords who were the backbone of the political system. Due to this and other related factors grain trade was not that much strengthened and took formal growth trend.

The socialistic grain trade policy has generally depended (based) on fixed price and quota system for agricultural marketing. The system has established different government institutions to carry out the grain marketing function both for local and exporte trade such as

1. Agricultural Marketing Corporation (AMC)

2. Ethiopian Oilseeds and pulses Export Corporation (EOPEC)
3. Coffee Marketing Corporation, (CMC)
4. Dairy Development Agency and (DDA)
5. Ethiopian Fruits (ETFRUIT)

(Befekadu *et al.,* 1990) The government's grain marketing and pricing policies were generally based on fixed price and quota system for agricultural marketing. As of March 1990, upon ratification of mixed economy policy, the government abolished the fixed price and quota system, turning the AMC into a state marketing board competing with private traders on the open market. The state marketing board, while not abolished, has been substantially downsized and has become a marginal actor in the current grain marketing system (Asfaw, 1998*)*

Although the actual market liberalization policy in Ethiopia was introduced in March 1990, there were attempts to liberalize the agricultural markets in 1980s due to donor pressure (Wolday Amha *et al*., 1997). The state marketing board, while not abolished, has been substantially downsized and has become a marginal actor in the current grain marketing system *(*Asfaw, 1998). This policy change became a background for the existing free market operation in the grain marketing activities of the country. After EPRDF took power in May 1991, it restructured and reorganized the production and marketing system in a market-oriented manner. The implementation of agricultural market liberalization has been influenced by the reforms and restructuring process in the rest of the economy. These reforms included price deregulation, financial liberalization, fiscal policy reform, institutional reforms, and trade policy reform (Wolday Amha, 1997)

The Ethiopian Grain Trade Enterprise, which is an offspring of the new policy change, is engaged in wholesale grain marketing activities. It is an autonomous public enterprise formerly known as AMC. It was restructured and renamed as EGTE in 1992, following the

change of government. The objectives of the newly formed enterprise were redefined to stabilize producer and consumer prices and maintain buffer stock for market stabilization. In its institutional development process, the role of the EGTE in the grain industry was revised again in October 1999, when it was reoriented mainly to operate in export markets as a commercial enterprise (Girma Bekele 2002)**.**

2.3.4. Cooperative Grain Marketing

2.3.4.1. Need for cooperative society

Despite the impressive growth in grain production over the past three years, large portions of the rural and urban population remain food insecure due to low income to purchase food. About 63 per cent of the rural households in Ethiopia possess less than one hectare of land, and a very large portion of these households cannot grow sufficient food to feed them (CSA, 1995/96). Therefore it is believed that, in a country where millions of farmers are engaged in subsistence agriculture, the role of cooperatives is crucial in the development of efficient marketing system (FDRE, 2002)

The market dependent population, that is, the population that depends on the market for all or part of its food supply, is estimated to be about 42 per cent of the total population (Alemayehu, 1993). Almost all urban consumers are dependent on the functioning of agricultural markets to acquire their food, which accounts for about 65 per cent of total household expenditure; expenditure on cereals alone constitutes about 21 per cent of the total household expenditure (Bereke*t et al.,* 1996). It is clear that an inefficient marketing system entailing substantial costs to consumers will have detrimental effect on the food security and well being of the poor (Gebremeskel *et al.,* 1998).

Facilitating the establishment, maintenance and management of cooperative marketing groups is among the many mechanisms by which Government can seek to support small farmers. By

collectively gathering, grading, packing and storing produce, agricultural cooperatives are able to significantly improve the efficiency of the marketing system and to add significant value to the produce. Cooperative marketing provides small farmers with greater market power and may provide an alternative means for farmers to purchase various inputs, thereby reducing the farmers' dependence on rural traders whose terms of trade are both costly and restrictive **(**Murray McGREGOR 2003**).**

2.3.4.2. Origin and Legal Provisions for Cooperative Growth

So many advantages can be discussed here about the cooperative societies, particularly for rural households that are lacking a lot of institutional and organizational services. FAO document widely mentioned that co-operatives appear well suited to the economic, social and institutional needs of development in the rural economy. Co-operatives can provide the mechanism to organize and mobilize people for self-help action in providing the services they require as a farming and rural community. As self-administered rural institutions, co-operatives have the capacity to reflect, and to respond to the needs of their members; and, at the same time, to help foster attitudes of self-reliance and self-confidence within a framework of mutual aspirations and mutual action. In the delivery of services to their farmer-members, they can provide an essential support to the development objectives of both the farmers themselves, and of national development policy. They can work as a springboard for rural development intervention

Despite these and other advantages of cooperative organizations for rural development, the cooperative movement in Ethiopia wasn't that much encouraging for the last few decades. The imperial government issued decree No 4/1960 to provide for the establishment of cooperative society known as the "farm workers cooperatives" to overcome different political economic and social pressures exerted from the entire society. The government provides land

for the cooperatives from the government land to use and collectively own as "*Rist*" land (Decree no 4/1960) rist land is a communal type of ownershiop where all descendants of an individualfounder entitled to a share , and individuals had the right to use (a usufruct right) a plot of family land. Rist was hereditary, inalienable, and inviolable No user of any piece of land could sell his or her share outside the family or mortgage or bequeath his or her share as a gift, as the land belonged not to the individual but to the descent group (web info)

The co-operative enterprise has its origin in the 19th century and has become one of the most ubiquitous forms of business/economic enterprise. Co-operatives exist in all countries of the world and operate under diverse political systems from communism to capitalism. The majority of these co-operatives are, through their national apex organizations, ultimately in membership of the ICA, the representative world body of co-operatives of all types (FAO; Agricultural marketing, 1997*)* of cooperatives has been counted over forty years since the modern farmer's cooperatives came into existence in Ethiopia in the 1960s. Over those periods of time, different governments were taking power with their different ideology. The first state to start cooperative activities was the emperor Haileselasie ruling Ethiopia from 1930 to 1974 (web data).

The major purposes and objectives of the farmer workers' cooperatives as provided by the decree were to arrange cooperative production, processing, transportation, and marketing of agricultural products; to operate and administer livestock and agricultural activities by the members; to promote good farming and agricultural practice; to promote cooperation among members of the cooperatives

The qualifications for cooperative membership required for registration as provided in the decree no 4/1960 were including;

The applicant was required to appear in person before the ministry or a branch office;

The applicant must be an Ethiopian by nationality,
He should be over 18 and under 60 years of age;
He must be physically fit;
He must make a declaration to work in cooperation and over 200 days in a year

The decree shows the distribution rates of profit to be 10 per cent of the net profit to allot for general reserve fund; 50 per cent should be distributed among the farm workers or members and 40 per cent of the profit to be divided between investment needs and social program

In relation to the Management of Cooperatives, the decree decided that the Ministry of Community Development should appoint the general manager of the cooperative. His payment was to be made the cooperative. The manager was responsible both for the management committee of the cooperative and the Ministry of Community Development and Social Affairs (MCDSA). The decree prohibits all cooperatives borrowing money from other sources till the ministry's debt is fully paid.

The government issued another proclamation in 1966 to amend the decree. The proclamation provided for two types of cooperative societies: primary society which comprises not less than 10 members and secondary society consisting of a primary plus another society with legal personality.

The government pledges to provide incentives for cooperative movements in the new proclamation such as exempting the income of a society from taxes, provision of assistances in terms of loans, advances, subsidies or ad hock grants; allocating government land to any society that request for it, and having tribunal to be located in Addis Ababa consisting of 3 members. It receives compliant against the registrar if some sort of illegal condition occurs. The hierarchy shows that the imperial court hears the appeals that come from the tribunal court.

Kibebew (1986) has discussed that the significant achievements of the cooperative department of the MCDSA was that in 1971 a cooperative training center was established at Awassa Town to train cooperative managers, and other necessary workers. In 1973 some 270 people had some long term and short-term training, 50 of them were trained abroad. Around 1974 or at the end of the hegemony of the imperial government, it was reported that there were 152 cooperatives in the country, out of which 98 were agricultural - multi purpose cooperatives; 21 were thrift and credit cooperatives; 11 consumers' cooperatives and 22 other types of cooperatives. Out of these, only 83 were legally registered. Since the proclamation did not specify the composition of membership, it was dominated by land owning farmers, and the profit in most cases went to those well-to-do farmers.

After Emperor Haileselasie the Military junta commonly known as 'Derg' took power from 1974 to 1991. The third state is the existing government, which took power from the military government in 1991(VOCA Ethiopia ACE, 2005). During the Derg period, the share of cooperative in grain marketing was simply collecting the grain from their members and supply to the government grain trade organization (Befekadu, *et al*, 1990).

Cooperative Movement, (Kibebew; 1986), in the Post Revolution Period or during the period of the Derg government has taken another form of organization with different objectives. As soon as the government declares the socialist way of development, activities were taking place to consolidate cooperative movement. Through this process, the old organizations were abolished and new forms of cooperative organization were set up. There was a need to issue proclamation to provide the establishment of cooperative. In that case proclamation No 138/1978 was issued to consolidate the proclamation no 37/1975, which used to nationalize rural lands and provide the establishment of peasant associations within 20 *gasha* or 800 hectares of land.

The proclamation under article 3 provided the following objectives of cooperative establishments; developing self reliance and promoting the interests of members; putting the means of production under producers' cooperative and transforming them gradually to collective property as may be necessary; increasing production or raising productivity; expanding industries; undertaking political agitation; eliminating backward culture and customs; participating in the building up of the socialist economy and accumulating capital and mobilizing human resources to sustain economic development (proclamation no 37/1975). The objectives are actually interdependent and overlapping**.** The government has been able to establish huge number of cooperative societies under its socialist philosophy. The system was continuing until drastic reform was taken in 1991 from socialism to mixed economy. In both political systems the fate of cooperatives was based on the wills and full control of the government.

When one further investigates the cooperative history in this country, it is possible to find facts such as: cooperatives, particularly the agricultural cooperatives, were not established based on the interests and initiatives of members rather they were government driven. The government interests and controlling mechanisms were imposed on the functions and activities of the societies; the societies are largely the reflections of the government philosophy. Especially, during the Derg period, at grass root level they were state machineries to control the overall activities of rural households including their marketing and pricing of agricultural inputs and outputs and household commodities, and others were the functions of the state quota system formulated by the government rather than the cooperative leadership.

Cooperatives as an institution could not continue to work on their objectives last long since the 1960s. They dismantled and cease to exist with the collapses of the government system,

which largely brings about the loss of financial and material wealth of the society. It causes the discontinuity of managerial and technical experiences to run cooperative organizations properly. The technical and managerial skills could not develop and transferred from generations to generations. It has also negative consequences on the psychology of private individuals to participate in the cooperative movements.

The years after 1991 can be considered as the third phase in the history of cooperative movement in Ethiopia. The number of cooperatives established according to the proclamation no 147/98 are increasing in all regions particularly in Amhara, Tigray, Oromiya and SNNP. They are growing very fast, especially in the rural areas, largely carryout the marketing of agricultural products and supplying of inputs for improved productivity. However, there is no concrete evidence and sufficient information on the performance of agricultural marketing cooperative in the area of grain marketing, which is very essential for improving the bargaining power of farmers. As per the official information from the Federal Cooperative Agency for the year 2006, totally there were 130 unions and 19,147 primary cooperatives with 4,617,800 individual members, Table 2.11. This is in fact a huge number for the country that had bad history in the cooperative movement in the previous periods.

Table 2.11 Unions and Affiliated Cooperatives and Members in Ethiopia 2006

Regions	Number of unions	Number of affiliated cooperatives	Members of affiliated cooperatives
Amhara	28	2262	1495813
SNNP	33	1453	851457
Oromia	48	2935	1452565
Dire Dawa		470	11074
Afar		162	8366
Tigray	20	1356	358226
Somali		247	8520
Gambella		36	2573
B/Gumuz	1	40	8336
Harari		71	2385
Addis Ababa		10115	418485
Ethiopia	130	19,147	4,617,800

Source: Federal Cooperative Agency 2007

Table no 2.12 disclosed that the distribution of cooperatives among the zones of the Amhara Region is varied. The highest proportion or 21.4 per cent of the total belong to the East Gojjam Zone. The West Gojjam Zone is the other zone which has larger number of unions with about 18 per cent of the total. Regarding the number of affiliated cooperatives to the unions, the West Gojjam Zone ranks first in the region by having much number of primary cooperative joined the union. Both zones of the region hold a higher significant number of unions, affiliated cooperatives individual members. This might be related to the higher agricultural production of grain in the zones. At present the western Amhara as compared to the eastern is becoming the area where cooperatives are flourishing. It holds nearly 60.71 per cent of the union, 65.01 per cent of the affiliated cooperatives and 64 per cent of individual members of cooperatives (Table 2.12).

Table 2.12 Cooperative Data at Regional and Zonal Level of the Amhara Region 2005/06

List of zones of the region	Number of unions	Per cent	Number of affiliated cooperatives	Members of affiliated cooperatives				
				Per cent	Male	Female	Total	Per cent
East Gojjam	6	21.43	122	20.93	82326	8179	135883	33.11
West Gojjam	5	17.86	151	25.9	67364	2304	43350	10.56
Awi	1	3.57	25	4.29	21120	2370	23490	5.72
North Gonder	3	10.71	45	7.72	3337	1013	24912	6.07
South Gonder	2	7.14	36	6.17	32154	1579	35138	8.56
Western Amhara	**17**	**60.71**	**379**	**65.01**	**206301**	**15445**	**262773**	**64.02**
North Wollo	2	7.14	32	5.49	28962	3933	43386	10.57
Waghimra	1	3.57	10	1.72	1797	477	2274	0.55
South Wollo	3	10.71	89	15.27	16722	9565	66669	16.24
Oromiya	1	3.57	16	2.74	11932	1622	13554	3.3
North Shoa	4	14.29	57	9.78	6699	2527	21770	5.3
Eastern Amhara	11	39.28	204	35	66112	18124	147653	35.96
Region Total	**28**	**100**	**583**	**100**	**272413**	**33569**	**410426**	**100**

Source: Federal Cooperative Agency 2007

Now the cooperatives in the Amhara Region are providing grain storages and conditioning services in addition to a year-round supply of grain for members and other grain producers. Cash or short-term price contracts are the usual methods of payment. Some strong unions are

arranging transportation facility for primary cooperatives. The grain-marketing share of the cooperatives in the Amhara region, as compared to other three regions of Ethiopia (Tbale 2.13), is considerably high. With regard to cereals 25.9 per cent, oilseeds 53.1 per cent, pulses 31.4 per cent, and spices 98.1 per cent totally 30.51 percent grain marketed was the share of the Amhara region). These were marketed by agricultural cooperatives of the Amhara Region (VOCA/Ethiopia, ACE, 2005

Table 2.13 Grain and other products marketed through regions in the year 2004

Region	Volume grain sold in mt	Per cent share of regions	Value of sales in birr	Per cent share of regions	Price/quintal
Amhara	5,364	30.51	10,495,383	25.80	196
Tigray	235	1.34	284,633	0.70	121
SNNPR	4,175	23.75	6,850,278	16.84	164
Oromiya	7,805	44.40	23,048,105	56.66	204
Overall	17,579	100	40,678,399	100	191

VOCA/Ethiopia; agricultural cooperatives in Ethiopia 2005

Though the problems of cooperatives in this country somehow are minimized with the development of the socioeconomic conditions of the country, farmers normally bring their marketable grain to markets walking 5 to 20 km away from their villages. They use pack animals or their shoulders to carry their commodities. Grain sales by farmers in markets beyond 20 km distance are infrequent. Most of the grain is sold between January and March. Grain sales by farmers during the above mentioned period represents 79 per cent of their annual sales; and the remaining 21 per cent is sold during June - December (GMRP, 1996).

Farmers are forced to sell their grain immediately after harvest, when prices are generally low, because of fear of storage loss and in order to meet their cash needs for the purchase of food, for covering wedding expenses, and for repaying loans and taxes. Because of their large number compared to the wholesalers, lack of direct access to other markets or alternative channels and absence of any market extension service, farmers' bargaining power is generally weak (Gebremeskel Dessalegn *et al*., 1998).

2.3.4.3 Cooperative Management

The control structure of co-operatives is made up of three tiers such as general meeting of members, management committee and manager or secretary. The general meeting of members makes policy and through this meeting members exercise control. In most countries, there is a legal requirement to hold an Annual General Meeting which has the particular responsibilities of receiving and deciding upon an audited statement of account, deciding how any surplus shall be used and distributed, and of electing a committee (FAO; 1997).

The socialist form of cooperatives existing in Ethiopia in the Derg period was made to have four organs within the three tiers as provided by the proclamation; these were, The General Assembly consisting of all members does not usually meet rather frequently; Executive Committee to be created by the general assembly and provided a power to monitor, evaluate and decide the day to day activities of the cooperative society; Inspection Committee with the responsibility to see that the Executive Committee carries out the existing rules and regulation and implement the decision of the General Meeting; Development Committee with the main task to assist the chairman in the implementation process of the decisions of the General Assembly and in introducing innovative approaches with the view to raising productivity (proclamation no 138/1978)

The General Meeting of Members delegates the operational control of the co-operative to a management committee (or board of directors), which controls the work of the co-operative on behalf of the members. One member of this committee is elected chairman or president. The management committee appoints a manager or secretary who is the chief administrative officer of the co-operative. He/she is responsible to the committee for the day-to-day control of the business. In small co-operatives, he/she may be a member elected to do the work without pay (proclamation no 147/98)

The control and management of secondary co-operatives is similar in form to that of primary co-operatives. The share holding members - the primary co-operatives - exercise policy control through the General Meeting and elect a management committee to act on their behalf. The management committee in turn appoints a chief officer to manage the operation under its direction. The byelaws of secondary co-operatives, as with the primaries, set down the organizational rules and procedures and are subject to the approval of the responsible local authority. The operating surplus of a secondary cooperative is also used and distributed following the same principles as a primary co-operative (FAO; agricultural marketing).

Regarding the common weakness of co-operative societies, the FAO document on agricultural marketing exposed that unfortunately, the potential of co-operatives and the extent of their development has, in many cases, fallen for short of expectations. Low standards of performance, bad management, financial failure, corruption and misuse of funds, use of co-operatives for political ends, have been common features of the co-operative enterprise in many countries.

Cooperatives, unlucky enough, suffer from external interference by government organizations and political parties in their internal affairs. Kibebew (1986) discusses that cooperatives are handled or organized by agents. This is a common feature in countries that are not guided by socialist principles. Those agents are called cooperatives organizers. In socialist oriented societies they are called production cadres. The techniques varied according to the principles. In socialist countries, the emphasis was to politicize cooperative development, where as in non-socialist countries the emphasis is education and skill. They were agents of the government during the Derg regime to execute the government quota for grain purchase and supply for the parastatel organization (AMC)

2.4. Summary of literature

The empirical researches reviewed for the consumption of this thesis research are those done on the area of grain production, grain marketing policies and policy changes and the cooperative grain marketing in Ethiopia,

In relation to grain production, relevant information on the cultivated land, production and yield of crops and the application of improved technology were given more emphasis, The researches show that the farm land size per household is decreasing over time due to population pressure, the main crop predominantly produced are those cereals to be used for staple food. The volume of production of cereals is increasingly unable to cover the local demand. In their case the country is at food grain deficit requiring foreign food aid to cover the gap. There is a growing trend in the application of improved technology. The utilization of fertilizer usually strangulated due to budget constraint and poor capacity to supply timely and the required quantity to the producers. Thus, there is an understanding that there is good grain marketing where the production of grain is improved and able to meet the market demand in the deficit areas. The local and export marketing of grain has come through different policy situations in the last four decades including the laissefarism of the imperial time, the excessive intervention of the military administration and the existing free market economy. Grain marketing especially in the time of Derg was completely taken by the government and farmers as well as cooperatives were affected economically. The farmers' psychological readiness to produce more was failed. Cooperatives were simply serving the government grain trade organization rather than their members.

The tradition of cooperatives grain marketing in the country started during the imperial time with the establishment of the farm workers cooperatives under the decree no 4/1960. Regardless of the policy problems, cooperative were involved in the grain marketing withstanding the competition of traders. Particularly at present the involvement of cooperatives is becoming greater than ever before. Hence, are they efficiently handling the marketing practice, what are the existing obstacles affecting their performance are they winning the interests of members what are the prospects and potentials of grain marketing of cooperatives these are the areas gaps that need evaluation works on the efficiency of marketing performances. To handle the research idea the researcher was selected the Mmerkeb Multipurpose Farmer's Cooperatives Union and the affiliates.

Chapter 3: Materials and Methods

3.1. Introduction

The intention of the research work as discussed in the objectives is to investigate the activities and thereby to evaluate the efficiency of the grain marketing performance of the newly growing agricultural marketing cooperatives with a special emphasis to the Merkeb Multipurpose Farmers' Cooperatives Union. The cooperatives and their unions are having lack experience in the promotion of marketing activities and are also challenging the vast interests of farmers to empower in the grain marketing areas. The temptation from active and dominating traders for grain collection is a headache for cooperatives and they enter in to fierce competitions to benefit from grain marketing. Thus, the researcher has tried his level best to meet its objective starting from the designing stage to the final output of the work.

This chapter includes the type of method applied for the research; under it there is a description of the study area, study population, data collection and procedures, appropriate data management, statistical analysis, the materials and manpower utilized for the overall research work.

3.2. Methods Applied

3.1.1. Description of the study area

The Amhara Regional State (ANRS) is geographically located approximately between 9^0 21' to 14^0 0'North latitude and 36^0 20' and 40^0 20' East longitude. The total area of the region is estimated to be 170150 square kilometers. It shares boundaries with five Regional States of Ethiopia, Benishangul Gumuz Region in the West, Oromiya Region in the South, Afar Region in the East Tigray in the North and the Sudan Republic in the North West. The total population estimated to be 25,176,300 making up 30.1per cent of the country's population according to the most recent 1994 census projection. About 90per cent of the population are rural and make their living through farming, mostly in the highland areas.

The region is endowed with varied topography consisting of low lands extensive plateaus numerous mountains, river valleys and gorges. The low lands that ranges from 500 to 1500 meters above sea level cover mainly the northwestern parts of the region bordering the Sudan and the eastern parts neighboring to the Afar Region. Agro ecologically the region constituted *Kolla* 26.71 per cent (500 – 1500 masl), 46.61 per cent *wainadega* (1500 – 2300 masl), 24.15 percent *Dega* (2300 – 3000 m.a.s.l) and 2.53 per cent *Wurch* (3000 – 3700 masl). The recorded mean annual temperature of the region ranges from 12.4^0 c in dega to 27.8^0 c in arid *kolla* of *Metema* area. The mean annual rainfall recorded for the region is in the range of 598.3 mm at *lalibela* and 1692mm at *chagni*. This is the mean recorded from 3 – 25 years. The southern plateau and central parts of the region receive about 1000 mm of annual rainfall (CSA 2006).

Few actors dominated by the agricultural sector constitute the economic structure of the region. Barley, corn, millet, wheat, sorghum and Teff, along with beans, peppers, chickpeas

and other vegetables are the most important crops. In the highlands one crop per year is normal, particularly in the western parts of the region, where as unless there is no problem, the eastern parts of the region both in the highlands and lowlands two cropping seasons are there locally known as the Meher and belg seasons. Cattle, sheep, and goats are also contributing at the larger extent to support the regional economy

The regional gross domestic product, as discussed by the Bureau of Finance and Economic Development, for the year 2003 based on constant factor cost was estimated to be Birr 15.15 billion. The contribution of the agricultural sector is estimated at 60.9 per cent, industry and other service sectors contribute 22.9 and 16.2 per cent respectively. Agriculture has a lion share for regional economic growth with 47.6 per cent contributions, where as the service sector and the industry have 25.06 and 24.08 per cent. As far as agriculture is playing a great role in the regional economy, the contribution of cooperative societies is distinctive and their efficiency and strength in the performance of production and the area of marketing should get proper attention. Unlucky enough the region is still under complicated economic problems. The regional per capita income estimated based on constant factor cost for the last 12 years remained to be birr 812.1. Such economic condition made 30.5 per cent of the regional population remain under the poverty line.

3.1.2. Research Location

The surrounding areas of Lake Tana include all the woredas in which the affiliated primary cooperatives of Merkeb multipurpose cooperative union are organized. It is the area prolonged from the west to southern parts of south gonder zone to the entire north of west Gojjam within the geographical coordinates of $11.08^0 – 12.05^0$ North and $11.24^0 – 11.74^0$ East both from West Gojjam and South Gonder zones. The geographical coordinate of each woreda is shown in the Table 3.1

Table 3.1 Geographical Coordinates of the Survey Woreda

Sr .N	Woreda	Location (Coordinate)	
		Latitude	Longitude
1	Achefer	$11.24^0 – 11.89^0$ N	$36.51^0 – 37.21^0$ E
2	Bahir Dar Zuria	$11.29^0 – 11.87^0$ N	$37.09^0 – 37.66^0$ E
3	Dera	$11.28^0 – 11.90^0$ N	$37.43^0 – 37.21^0$ E
4	Fogera	$11.68^0 – 12.05^0$ N	$37.49^0 – 37.99^0$ E
5	Yilmana Denssa	$11.08^0 – 11.42^0$ N	$37.30^0 – 37.87^0$ E
6	Mecha	$11.10^0 – 11.63^0$ N	$36.98^0 – 37.36^0$ E
7	East Estie	$11.15^0 – 11.74^0$ N	$37.83^0 – 38.27^0$ E
8	West Estie	$11.19^0 – 11.57^0$ N	$37.76^0 – 38.03^0$ E
	Study Area	$11.08^0 – 12.05^0$ N	$36.51^0 – 38.27^0$ E

Source GIS Team of ANRS BoPED 2007

Topographically the area is almost flat plain land with mountainous landscape and cliff lands in Estie, Yilmanadensa, and Mecha Woredas surrounding the Lake Tana basin and following the Abay River Valley. It has mono season and its main rainy season starts from early May and extends to mid September. Woinadega agro climate with altitude range of 1700-2500 meter above sea leve is characterizing the area. The maximum and minimum temperatures are 10ºc and 20ºc respectively. With a rainfall of more than 1800 mm per annum crop production and livestock rearing are closely integrated in the agricultural system of the area. The major crops are Teff, maize, millet oilseeds and pulses. The two zones particularly West Gojjam Zone is likely to be a granary of the Amhara Region in which about 26 per cent of grain production was harvested in 2006.

The agro climate of the area is suitable for livestock production. The Fogera cattle bread, which locally known for its productivity and high yielding in meat and milk production is said to be the wealth of the study area. There is huge potential for the development of rain fed and irrigated agriculture. More than 500,000 hectares of land are under cultivation in the Tana sub basin

The area with its significant water and land resources, rich cultural and natural assets, has tremendous potential for development, provided that favorable enabling environment and the required investment is made. There are well-developed transportation systems including good road connectivity from Addis Ababa to Gonder, Bahir Dar to Dessie and to Mekelle and also with Khartoum (Sudan) through Metema. There is air transport service in Bahir Dar connecting the city to Addis Ababa, Gonder and Lalibela town with daily flight.

According to the estimates of the central statistical authority for year 2007, the population of the study woredas is about 2,216,177, Table 3.2; the growth rate of the population is about 2.5 per cent/year.

Table 3.2 Total Population and Density per Sqkm of the Study Woreda as of 2006

Woreda	Area (sqkm)	Population total	Density/ sqkm	Urban population	per cent of urban population
Fogera	1095.00	256496	234	5517	2.15
Estie	2368.13	403956	171	18563	4.60
Dera	1608.44	290628	181	21670	7.46
Achefer	2515.64	326195	130	24565	7.53
Bahir Dar Zuria	2962.62	270013	91	13915	5.15
Yilmanadenssa	1347.53	334412	248	21117	6.31
Mecha	1602.81	334477	209	21195	6.34
Total	13500.17	2216177	164	126542	5.71

Source computed from CSA Data

The population densities among the surveyed woredas varied from 248 persons /km^2 in Yilmanadenssa woreda to 91 persons /square^2 in Bahir Dar zuria woreda. The density is thus to be 164 persons/kilometer Square Table 3.2. This is a very huge number as compared to the national population density estimated to be 68 persons /km^2 in 2007. The high population density observed in the survey area can be the results of the agricultural productivity of the area or other factors. Urbanization is higher in the area including Bahir Dar, Woreta, Adet,

Durbete, Merawi Ambessame and other growing centers. The share of urban population is almost 6 per cent excluding Bahir Dar city.

The population of the survey area covers about 45.4 per cent of the total population of south Gonder West Gojjam zones. Where as the total landholders, area of cultivated land, and volume of production of the two zones represent 25, 27 and 26 percents of the region respectively (Table 3.3).

Table 3.3 Size of Cultivated Land in South Gonder and West Gojjam Zones 2006

Location	Number of Holders	Area	Production
Amhara	3192624	3638543	49220615
South Gonder	402011	489098	4977946
West Gojjam	387294	508661	7708803
Total	789305	997759	12686748
Per cent	25	27	26

CSA: statistical Bulletin, area and production vol 1 2007

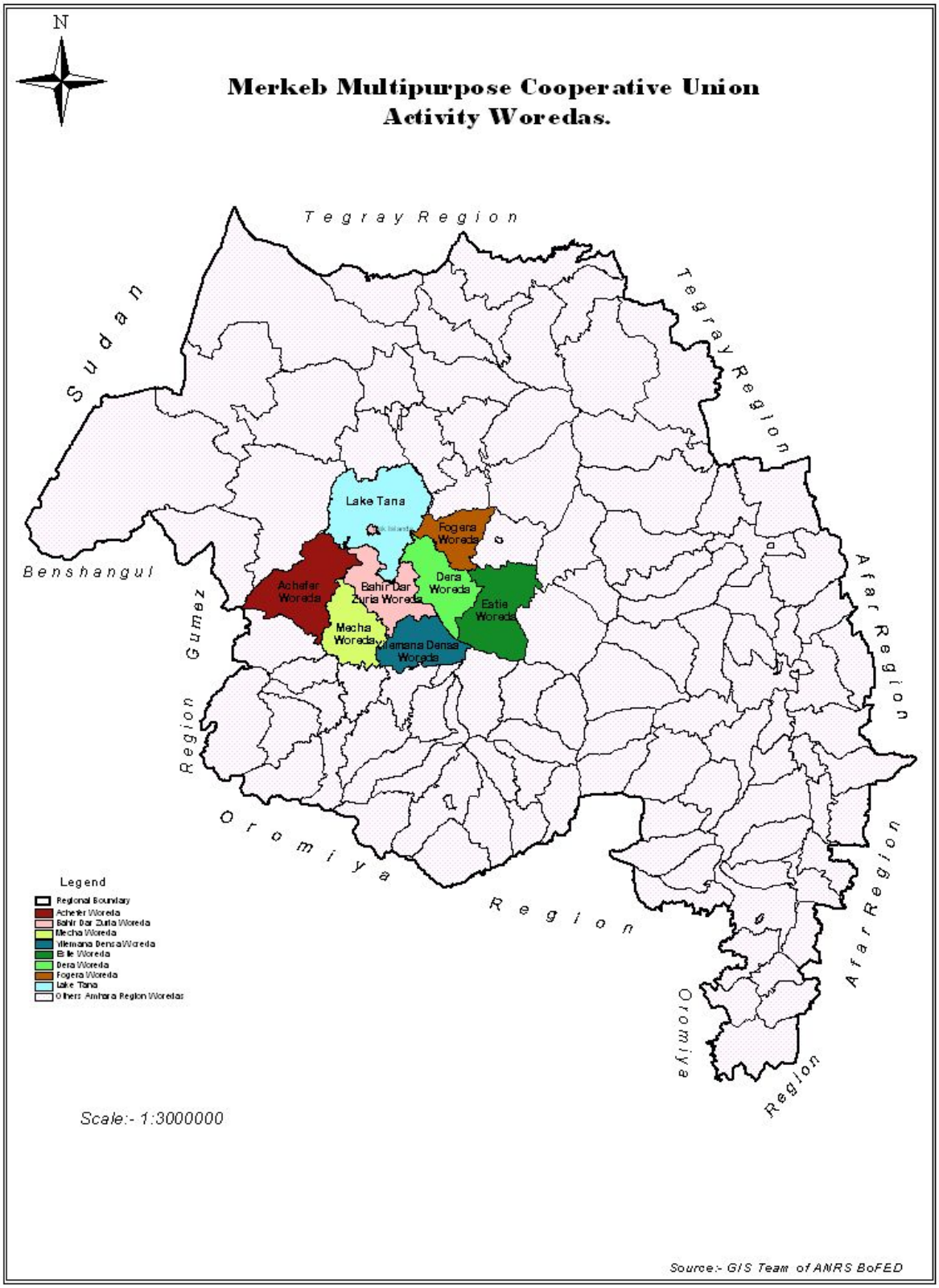


Figure 1 Survey Woredas within the Political Map of the Amhara Region

3.1.3. Study Population

The study population of this research is to cover all members of the affiliated cooperatives of the union. The union is one of the newly organized farmers multipurpose cooperative unions established in June 2004 with 19 founding affiliated cooperatives. The location of the union is the Bahir Dar city and covers all Woredas described earlier including the west Gojjam and south Gonder zones. The founding primary cooperatives were serving for 34660 members of whom the majority or 31944 members were male and the rest 2716 female.

The union is expanding itself to include other primary cooperatives from the adjacent woredas of both zones. At present the member of cooperatives reached to 56 and the number of beneficiary members of affiliated cooperatives reached at 106,574 (89.53 per cent male and 10.47 female). The number of household members of the cooperatives is becoming very big passing half a million or 518,950 (50.49 per cent, and 49.51 per cent male and female respectively).

Thus the study population covers ten woredas where the entire 56 primary cooperatives that are affiliated to the Union are located. All the primary cooperatives have a total number of 75063 (91.24 per cent male and 8.76 per cent female) members in June 2007. This was the population fully covered by the survey.

3.1.4. Data collection and procedures

Sampling and sampling frame

The sampling method to be used is believed to cover all the areas and population understudy within a specific time, money, material and manpower. Therefore, the sampling frame, sampling units, and household sampling procedures are identified and discussed under this

unit. The activity area of MMPFCU covering the ten administrative woredas is purposely selected as a project area for this research. The sampling frame made to be the administrative structure of the woredas (the largest unit) and the affiliated primary cooperatives (the smallest units) as the separate layers. Households that are members of the primary cooperatives are the sampling units. Particular emphasis has been given to farmers that are members of the founding cooperatives to the union as the target population.

The study *woredas* for the data collection were purposely selected to be those founding members of the union (Table 3.4). This is purposely done for the reason that the cooperatives will have better history of marketing relation for longer time than the one join the union recently. The required list of households that are members of the affiliated primary cooperatives will be obtained from each cooperative as well as the recordings of the union and the regional office of the cooperative promotion agency.

Table 3.4 List of Woredas and Kebeles Covered by the Survey

	Woreda	**Number of cooperearives covered**	**Number of Kebeles**	**Number of respondents**
1	Bahirdar Zuria	2	6	19
2	Goncha Kolela	1	3	9
3	Mecha	2	12	44
4	N. Achefer	1	2	15
5	South Achefer	2	4	24
6	Yilmana Denssa	3	6	29
	total	11	33	140

2. Household Sampling

Stratified sampling method is appropriate method for the data collection purposes of the survey. Two strata including the primary cooperatives and individual households that are members of the affiliated cooperatives should be there. Here, the probability proportional in size (pps) method has been applied to achieve precision in the data collection for representation. The primary sampling units or the affiliated cooperatives are different in size,

that is, they have different number of member individuals ranging from less than a thousand to the maximum of five thousand members. Thus, to give a representation to the small sized cooperatives and the big ones, the pps method is found appropriate. In addition to the advantages of precision, the pps method is an easier technique for a fieldwork and there can be an inter comparisons of data between units as far as there is equality of the size of the units. The researcher expects that exact pps sampling of primary sampling unit can give a chance to achieve complete control over sample size. Therefore, the frame of references of the research, that are primary cooperatives and individual members, need to be made easily manageable and effective tools of data collection.

The following formula has been applied to determine the sample size from the frame of references or households. Thus, using this formula, the minimum sample size is made to be 140 households to meet the requirement from 20 per cent of the total cooperatives that were covered in the sampling.

$n = p\,\% \times q\,\% \times (Z/e)^2$

Where

n = minimum sample size

p = % = the proportion belongs to the target population

q = % = the proportion that is not belong to the target population 90 per cent

z = the value of the level of corresponding to the level of confidence required 1.96

e = the margin of error required

The target population is 10 per cent of the households

Level of confidence 95 per cent which corresponding to z score of 1.96

Thus using this formula the minimum sample size made to be 140 households to meet the requirement and 20 per cent of the cooperatives covered in the sampling

The required data at the union leve was collected through formal interview with the General Manager using structured questions attached at the appendices, conducting interview with the

union chair man, secretary and other 6 board members. The same method was applied with each sample primary cooperatives where the researcher also made observations on the offices, stores and shops to have a general picture on the existing situations of primary cooperatives.

3.1.5. Survey

The researcher applied more than one data collection tools that are scheduled for household data combined with interview questions for cooperative leaders, elderly people and other knowledgeable persons on the matter. Sample farmers were selected from the list of members available in primary cooperatives using interval sampling from randomly selected starting point. Unified schedule was developed focusing on grain production and marketing so as to reduce the overall size of the schedule but without leaving out any important matter for the research. The schedule was made to have open-ended, close-ended, and scaled-responses.

The research has been made to use largely secondary data sources collected from documents available on the internet, research results available in libraries (BoWRD, BoFED, CSA and Mekelle University) to collect data on the research area, yield and production of grain, marketed quantity, import/export trends, domestic consumption patterns, grain prices at different market levels and for different markets, etc. for regional and country level assessment of related issues.

Informal interviews were conducted with key informants in the major locations of the research area to obtain the attitude of local market actors towards the existing marketing activities and to see the relative importance of the various market participants in terms of volume of flow, to gather information on the types of market participants and the level of their participation, and seasonality of transactions, etc.

Interviews were also made with the existing agro industries in Bahir Dar city including the Bahir Dar oil mill and Guder Agro Industry to obtain an understanding of their trade operations with the cooperative union, costs and margins as well as technical and policy constraints they face and possibly the potential grain market for the cooperatives. The researcher has made a pre test with 5 farmers to correct redundents and unclear ideas and make the schedule easily to data processing.

3.1.6. Data Management

Maximum efforts have been put to keep the quality and clarity of the household level data. The raw data was well cleaned and verified carefully both on the field through supervising the collection process and in the office for credibility of the result. Errors and vague records were corrected immediately before the fieldwork was completed. Usual compilation and computation techniques were used to the verification and preparation of data. After the completion of the fieldwork, the data were coded, finalized and stored in a computer using SPSS (Statistical Package for Social Scientists). The computer soft wares MS EXCEl and MS WORD were largely used for data analysis and report writing. The data were further cleaned and corrected by making a short field revisit and were regularly up dated. Error checking procedures, particularly for the data collected from the primary cooperatives, the union and other government institutions have been run several times until the validity of the data for analysis is ensured.

3.1.7. Statistical Analysis

Descriptive statistics and analytical methods were essentially employed to analyze the data using appropriate and latest statistical packages. The chi-square test was made to check for significance of the some observed ratios from the data collected.

3.3. Materials and Manpower

Though the materials required for the research were listed and approved by the university, the funding organization failed to accept the demand for stationary and other transportation costs. The computer service has been obtained from my friends and Bureau of Water Resource Development. 10 competent field workers who have a good understanding of the research topics have collected the household level data. The enumerators were given sufficient training on the needs of the research before they embark for the data collection.

3.4. Limitations

Descriptive statistics other than sophisticated models and methods were used in the research in order to make the result of the study easy for understanding so that any one can use it in the future either for research or policy purposes. The research has got some limitation to find primary data from one sample primary cooperative due to the willingness of officers during the data collection process. Thus, the researcher omits the primary cooperative level information collected from the *Yismala* primary cooperative. The union withdraw it self from grain marketing since 2006 due to the case of VAT registration and this make shortage in the availability data for the last two years.

Chapter 4: Results and Discussions

4.1. Introduction

Agricultural economy in developing countries is usually exposed for unstable government policies and measures. It is the only biggest sector that supports the overall economic system. Nearly two decades have been elapsed since the shift was made from a highly centralized form of economic system of the Derg period to a liberalized free market economy of the existing government of the country. The change is part of the global change followed by the collapse of communism as a political and economic system and philosophy. The change led to radical shifts in the system of organizations and trends of marketing for rural households in Ethiopia. The changing socio-economic environment has triggered many trends that offer both new opportunities and threats to the many millions in regard to market access (Mark Lundy *et al.,* CIAT**).**

The Ethiopian grain economy underwent a dramatic market reform in March 1990. The government lifted, overnight, all restrictions on private trade, after 15 years state control over prices and interregional movements of grain (Lirenso 1993). The grain economy, particularly the trade sector was suffering from the policy problem of the previous government, which was based on socialist system. The overall economy has been under a strict centralization and government control. The liberalization of the Ethiopian grain market spelled the rejection of state-controlled channels, the return of private traders dispossessed of their trade during the

socialist regime, and the restoration of age-old trading relationships and market networks (Dadi, Negassa, and Franzel 1992; Amha 1994; Gebremeskel, Jayne, and Shaffer 1998).

This chapter reviews primary data and secondary evidence regarding the grain marketing efficiency and performance of cooperatives as new contestants of the free market atmosphere. It provides background information on the policy environment and the effect of market reform on market price levels. It also reviews the structure, level and demand of production, including food security considerations. It then reviews market seasonality, infrastructure, and the structure of the market. Thus, the chapter was planned to provide research results focusing on the marketing efficiency of MMFCU and its affiliates.

The chapter was also made to have the contents that include the description of the survey area (the region, and the study location), the union with its affiliates and discussion and interpretation of the survey results under the item analysis. The item analysis largely focuses on the evaluation of the efficiency of grain marketing activities that can be seen in to technical and pricing efficiencies, the prevailing marketing potentials and major bottle necks of the cooperative system in the study area. .

4.2. Analysis and Interpretation

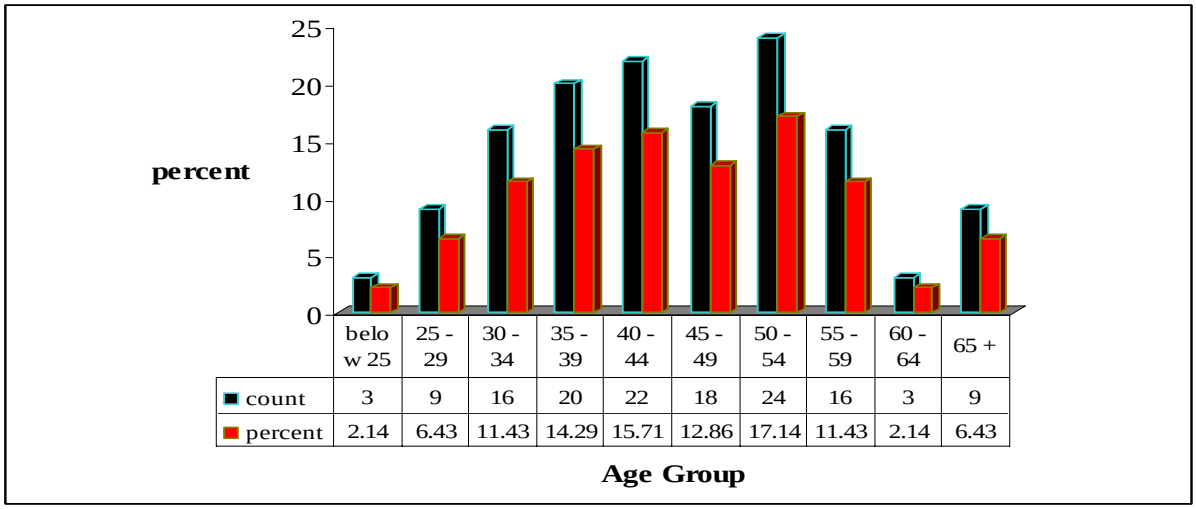
The analysis of the survey result is designed to deal with the marketing efficiency of the MMFCU and its affiliate cooperatives. Marketing efficiency can be categorized in to two major classes. The first one is concerned with the technical aspects, and the second one deals with pricing efficiency. The main contents of the technical aspects are related with the operation of all the required technical material and managerial conditions for the proper functions of the marketing system. Such conditions include the organization and management, market infrastructure, transportation, storage system and others. The pricing efficiency deals

with production of grain, marketing costs and margins, market information etc. Hence, the main focus of this chapter will be the discussions of the identified information on the existing marketing activities of the members, the primary cooperatives, and the union including the members' socioeconomic profile, the major bottlenecks of the cooperative marketing work, the potentials and opportunities.

4.2.1. Socioeconomic Profile

4.2.1.1 Age Composition and Marital Status of Members

The age composition of the 140 respondents, as disclosed by the survey, ranges from 22 to 73 years. As per the information from some informants, there are people scoring more than the disclosed age but they are not in a position to continue full membership participation due to physical weakness. They are simply substituted by other household members especially children. The survey data reveal only those who are active in the economic activities of the households.



	below 25	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 +
count	3	9	16	20	22	18	24	16	3	9
percent	2.14	6.43	11.43	14.29	15.71	12.86	17.14	11.43	2.14	6.43

Figure 2 Distributions of Cooperative Members by Five Years Age Group
Source: Survey Results

The highest percent of member farmers is within the age group 50 – 54 years (17.14 per cent) of all members (Fig. 4). The percent share of farmers within the age group of 40 – 44, and 35

– 39 years is significantly higher compared to the rest of the age groups. The other age groups particularly those under the age of 30 and above and the age of 59 years are lower. This may relate with the reason that lower age is an entry time in the economic activities and the upper age group clearly is a retirement age. The other may be due to the fact that the young farmers are expected to join the cooperative but the awareness creation on the importance of the cooperative system may not be done among the rural community.

The survey also considered the marital conditions of member farmers. The underline result as depicted in table 4.1 shows that the majority of the members (95 per cent) are married, few (1.43 per cent) are unmarried or single. Some 2.14 per cent of the total are found widower and the remaining 1.43 per cent are separated from their married life.

Table 4.1 Distribution of farmers by their age and marital status 2007

Age of respondent	Marital status				Total
	Single	Married	Widowed	Divorced	
Below 31		17 (94.44)	1 (5.56)		18
31 - 40	1 (2.70)	35 (94.59)		1 (2.70)	37
41 - 50	1 (2.22)	44 (97.78)			45
51 - 60		30 (100.0)			30
61 and above		7 (70.00)	2 (20.0)	1 (10.0)	10
Total	2 (1.43)	133 (95.00)	3 (2.14)	2 (1.43)	140

Source: survey results

4.2.1.2. Household Size

The survey result shown in the table 4.2 disclosed that households have a minimum of 3 and maximum of 12 persons. As per the distribution, the majority (19.4 per cent) of households have 6 member persons followed by households with 7 persons (15.11 per cent). Household heads within the age group of 35 – 39 largely have 5 member persons (31.25 per cent), the majority of old adults have minimum of 5 persons, which is the maximum for young adults household size.

Out of the 140 respondents 44.6 per cent has 8 to 12 members. This shows that the larger proportion of households among cooperative members have more than 8 persons sharing common resources and living together. Big household number is very necessary for agricultural production to cover the entire labor demand and to minimize the production costs.

Table 4.2 Member farmers by age group and size of households 2007

Age groups	Household size (Number of persons in the house)														Total
	3		4		5		6		7		8 - 12		Non Respons		
< 30	4	(33.3)	3	(25.0)	1	(8.3)	2	(16.7)	1	(8.3)	1	(8.3)			12
30 - 34	1	(6.3)	3	(18.8)	5	(31.3)	2	(12.5)	3	(18.8)	2	(12.5)			16
35 - 39			1	(5.0)	4	(20.0)	6	(30.0)	5	(25.0)	4	(20.0)			20
40 - 44			1	(4.5)	2	(9.1)	3	(13.6)	5	(22.7)	11	(50.0)			22
45 - 49				0.0		0.0	3	(16.7)	1	(5.6)	14	(77.8)			18
50 - 54			1	(4.3)	1	(4.3)	4	(17.4)	4	(17.4)	13	(56.5)			23
55 and +	1	(3.4)		0.0	1	(3.4)	7	(24.1)	2	(6.9)	17	(58.6)	1	(3.4)	29
Total	6	(4.3)	9	(6.4)	14	(10.0)	27	(19.3)	21	(15.0)	62	(44.3)	1	(0.7)	140

Source: Survey Result

In relation to the household size versus the farmland possession, the survey results reveal that the majority or 21.1 per cent of the households possess from 2 to 3 hectares of land have from 6 to 8 persons of household members. Others possess 1 to 2 hectares of cultivated land represent 24.1 per cent of all the cooperative member households, Table 4.3. This is an indicator for further farmland redistribution and the treat over the existing land resource unless other occupational diversification for the rural population should get proper attention.

Table 4.3 Percent Distribution of HH size by area of cultivated land

Household size	Size of cultivated land (Ha) by % of hhs				Total
	Below 1ha	1.00 - 1.99	2.00 - 2.99	3 and above	
3	0.7	2.9	0.7		4.38
4	1.5	2.2	2.9		6.57
5	0.7	5.1	3.6	0.7	10.2
6	0.7	8.8	9.5	0.7	19.7
7		5.8	5.8	2.9	14.6
8	0.7	9.5	5.8	2.9	19
9		8	4.4	0.7	13.14
10		1.5	3.6	1.5	6.6
11		0.7	2.2	2.2	5.1
12		0.7	0		0.7
Total	4.4	45.3	38.7	11.7	100

Source: Survey results

4.2.1.3. Educational Attainment

The cooperative members, as disclosed by the survey have attended up to a secondary level of education. A significant number (34.3 percent) of the members are found to be illiterate, about 25 per cent are able to read and write in Amharic, more than 37 per cent have attended a primary level of education and about 3 per cent have got a secondary level education. The literacy status of the households in the survey area is therefore exceeding 65 per cent. The result of this survey Table 4.5, as compared to the regional level of education coverage as of 2004 (31.12 per cent) is almost doubled within 3 years. This is an important background or potential for the union to disseminate all necessary information and skill training among the ordinary members of the affiliated cooperatives so as to improve the marketing activities in the area of agricultural marketing.

Table 4.5 Cooperative members by level of education attained

Levels of Education	Count	Per cent
Illiterate	48	34.3
Able to Read and Write	35	25.0
Primary	52	37.1
Secondary education and above	4	2.9
No response	1	0.7
Total	140	100

Source: Survey results

4.2.1.4. Livestock Ownership

Livestock production is one of the main economic activities of the rural population in the Amhara Region. Every household is seemed interested to have a single stock of any kind. Livestocks are sources of income and supporter of the agricultural grain production starting from the land preparation to threshing and even carrying the marketable surplus to the market. As depicted in the table, almost 97 per cent of the households own 1 up to 5 oxen. In terms of woreda distribution, all households, except in south Achefer and Yilmandensa, have their own oxen regardless of quantity. Households that lack even a single ox, particularly in south Achefer constitute 38 per cent of the total respondents. A significant number or 50.7 per cent

of households own a pair of oxen (Table 4.6) and this indicates that they are able to cultivate their land timely with out expecting the support of others.

Table 4.6 Sizes of livestock per household by class of stock2007/08

Class of Stock	Number of Households Having the Class of Stock													
	1		2		3		4		5		6 and above		Non	
Oxen	11	(7.9)	71	(50.7)	37	(26.4)	15	(10.7)	2	(1.4)			4	(2.9)
Cow	23	(16.4)	59	(42.1)	11	(7.9)	3	(2.1)	1	(0.7)			43	(30.7)
Bull	32	(22.9)	10	(7.1)									98	(70.0)
Heifer	29	(20.7)	14	(10.0)	2	(1.4)							95	(67.9)
Calf	34	(24.3)	27	(19.3)	9	(6.4)	5	(3.6)					65	(46.4)
Mules	25	(17.9)	1	(0.7)									114	(81.4)
Donkey	55	(39.3)	12	(8.6)	2	(1.4)							71	(50.7)
Sheep	7	(5.0)	17	(12.1)	12	(8.6)	18	(12.9)	11	(7.9)	17	(12.1)	58	(41.4)
Goat	2	(1.4)	9	(6.4)	7	(5.0)	4	(2.9)	4	(2.9)			114	(81.4)
Poultry	4	(2.9)	22	(15.7)	13	(9.3)	8	(5.7)	11	(7.9)	38	(27.1)	44	(31.4)

Source: Survey Results

Oxen are the very source of draft power for more than 98 per cent of the households to plough their land. Cows are the second important cattle for the rural population. Almost 70 per cent of the households own one to 5 heads of cows in the study area._Among the equines, donkey seems more important in the survey area; particularly the majority of the households (66.7 per cent, 56.8 per cent and 52.6 per cent) in North Achefer, Mecha and Bahir Dar woredas own 1-3 donkey (s) respectively Table 4.7). Donkeys usually serve to transport grain to the market as well as to the grinding mill in nearby towns.

Table 4.7 Number and percent of livestock ownership by survey woreda in 2007/08

Class of Stock	Number and per cent of stock												Total (140)	
	Bahirdar (19)		Goncha Kolela (9)		Mecha (44)		North Achefer (15)		South Achefer (24)		Yilmana Denssa (29)			
Oxen	19	(100)	9	(100)	44	(100)	15	(100)	14	(58.3)	26	(89.7)	136	(97.1)
Cows	12	(63.2)	5	(55.6)	34	(77.3)	15	(100)	11	(45.8)	20	(69.0)	97	(69.3)
Bulls	4	(21.0)	1	(11.1)	13	(29.5)	8	(53.3)	10	(41.7)	6	(20.7)	42	(30.0)
Heifers	6	(31.6)	3	(33.3)	17	(38.6)	7	(46.7)	7	(29.2)	5	(17.2)	45	(32.1)
Calf	11	(57.9)	4	(44.4)	28	(63.6)	11	(73.3)	8	(33.3)	13	(44.8)	75	(53.6)
Mule	1	(5.3)	2	(22.2)	9	(20.4)	5	(33.3)	2	(8.3)	7	(24.1)	26	(18.6)
Donkey	10	(52.6)	4	(44.4)	25	(56.8)	10	(66.7)	7	(29.2)	13	(44.8)	69	(49.3)
Sheep	7	(36.8)	6	(66.7)	26	(59.1)	15	(100)	10	(41.7)	18	(62.1)	82	(58.6)
Goats	2	(10.5)	7	(77.8)	9	(20.4)	2	(13.3)	7	(29.2)	27	(93.1)	54	(38.6)
Poultry	11	(57.9)	5	(55.6)	32	(72.7)	15	(100)	13	(54.2)	20	(69.0)	97	(69.3)

Source survey result

4.2.1.5. Housing Conditions

The responses collected and represented about 93 percent indicate that the houses of rural households are constructed from wood and mud- plastered wall with corrugated iron roof. The rest houses are made of wood and mud wall with thatched materials, which is a common and traditional type of house, in most parts of Ethiopia. Above 59 per cent of households have huts for kitchen work. The huts are made of wood, mud wall and thatched material for roof cover. 21 per cent of the households cook food in their resident houses (Table 4.8). The rest 20 per cent of farmers made their kitchen from wood and mud with corrugated iron roof.

Table 4.8 Type of houses and other shelters by construction materials

Construction materials	Type of house and other shelters					
	Resident		Kitchen		Cattle shed	
Wood & mud plastered wall and thatched roof	9	(6.40)	83	(59.30)	39	(28.00)
Wood & mud plastered wall and bamboo and Thatched roof	1	(0.70)			1	(0.70)
Wood & mud plastered wall and corrugated iron roof	130	(93.00)	28	(20.00)	76	(54.30)
No separate Kitchen /cattle shed			29	(20.70)	24	(17.10)
Total	140	(100.10)	140	(100.00)	140	(100.10)

Source: Survey results

The majority of the households (54 per cent) keep their domestic animal under the same roof with the household members to pass the night. Around 28 per cent construct their cattle shed from wood and mud with thatched roof. The rest of the households do not have cattle shed properly constructed in their courtyard. This kind of living is largely common in the high land areas of Ethiopia particularly in the Amhara region.

4.2.1.6. Cooperatives Establishment and Membership

Almost all primary cooperatives were established in 1976. They were established as service giving and producers cooperatives in almost all parts of Ethiopia. There were 837 producers' cooperatives in the year 1982 possessing 265,983.3 hectares of land and 62,862 individual member farmers. During the same period, there were 3603 service giving cooperatives with a total capital of Birr 59,731,980, out of which, the share of Gonder and Gojjam was 44 and 83

producer's cooperatives, respectively (Kibebew, 1986). The existing primary cooperatives are the ones among those cooperatives established during that period. Now these cooperatives are restructured and reorganized according to the legal provisions of the new cooperative proclamation no 147/98.

At present, the documentation and other relevant evidence on the historic activities of cooperatives are mishandled and in some cases nothing remains after the change of government in 1991. Regarding membership conditions, there was high number of membership participation, either forcefully or willingly, during the foundations of cooperatives it also continues to be high at present in most of the affiliated cooperatives of the MMPFCU, whereas in few of the cooperatives, the existing membership didn't achieve the level of membership during the establishment phase (see table 4.9).

Table 4.9 Membership growth since establishment of primary cooperatives

Surveyed Cooperative	Year of Establishment	Founding Members			Existing Members 2007			Difference
		Male	Female	Total	Male	Female	Total	
woncher	1980	2000	200	2200	1612	192	1804	-396
Lalibela	1980	592	85	677	1795	107	1902	1225
Meshenti	1978	Na	Na	Na	4220	142	4362	
Wotet Abay	1977	244		244	5271	278	5549	5305
Debrmewi	1978	2241		2241	2912	325	3237	996
Adethana	1980	1867	338	2205	1734	152	1886	-319
Kore	1980	700	250	950	1664	259	1923	973
Qenbaba	1978	1344	56	1400	2199	184	2383	983
Merawi	1977	203	11	214	6934	311	7245	7031
Abchickli	1978	333	135	468	3240	356	3596	3128

Source: Survey results

There was stunted membership growth in the majority of cooperatives from 2004, to 2006, but in the year 2007, there seems to be a great move of individuals to join the cooperative societies. Even in this year, there are too low rate of membership among some cooperative societies Table 4.9; for example the Abchickli, one of the biggest cooperative in the area, has below 1 per cent of registration for new membership. The Kore primary cooperative, the oldest among the Merkeb affiliated cooperatives, has got only 5.8 per cent membership

growth. In general terms, there are great ups and downs in the growth of membership of the affiliated cooperative societies (Table 4.10). The union has been established in 2002/03 with membership of 19-affiliated cooperatives and registered in the same year.

Table 4.10 Annual membership developments in primary cooperatives since2003

Primary cooperative	2003	2004	2005	2006	2007	Within the last 4 years
woncher	967	1.96	1.24	6.41	76.94	21.64
Lalibela	1888	4.24	1.48	12.39	15.68	8.45
Meshenti	1618	0.56	137.95	24.97	6.12	42.4
Adethana	810	49.88	49.88	17.04	34.81	37.9
Kore	1509	12.26	-5.43	14.84	5.77	6.86
Qenbaba	1273	1.73	80.13	3.22	2.12	21.8
Abchickli	2336	4.54	24.23	24.27	0.9	53.94
Merawi	4506	0.53	32.25	1.2	26.81	60.79

Source: Survey results

Each individual member of the cooperatives has his own reason to join the cooperative society. The data shown in the table 4.11 the great majority or 54 per cent of the respondents join the cooperative with the primary aim of getting farm inputs particularly fertilizer and improved seeds. Particularly the younger farmers below the age of 35 largely reflect this. Those aged people who have been members of the cooperative societies during the Derg era have joined the cooperative to benefit from the marketing services of the then service cooperatives, i.e., to get household commodities like sugar, soap, foot wears, and others. Such household commodities were scares and were supplied through service cooperatives even among the urban areas at that time.

Table 4.11 Reasons to join the cooperative by age group of respondents

Age of the Respondent	Reason (S) to Join the Cooperative								Total
	To Get Employment		To Get Farm Inputs		To Get Marketing Facilities & Household Commodities		Others		
Below 25			2	(66.70)	1	(33.30)			3
25 - 29			8	(88.90)	1	(11.10)			9
30 - 34			12	(75.00)	4	(25.00)			16
35 - 39	1	(5.00)	10	(50.00)	9	(45.00)			20
40 - 44			11	(50.00)	10	(45.50)	1	(4.50)	22
45 - 49			8	(44.40)	10	(55.60)			18
50 and +			25	(48.10)	27	(51.90)			52
Total	1	(0.7)	76	(54.3)	62	(44.3)	1	(0.7)	140

Source survey results

The survey result as depicted in the table 4.12 reveals that nearly 76 per cent of the farmers have joined their respective cooperative on their own initiatives or accord. According to the result shown in the table this is common for all age groups. 12 per cent of the respondents say that the motivation and agitation made by the cooperative leaders have contributed a lot for individuals to join the cooperative. Other reasons such as the advice of neighbors, friends, development agents, other relatives, etc have made contribution for individuals to join the cooperatives.

Table 4.12 Distribution of responses on the initiator to join the cooperative

Age of Respondent	Initiator to Be a Member Of The Cooperative						Total
	Own Accord	Neighbors	Cooperative Leaders	Friends	DA	Others	
Below 25	1 (33.3)		1 (33.3)			1 (33.3)	3
25 - 34	17 (68.0)		7 (28)	1 (4.0)			25
35 - 44	34 (81.0)			1 (2.4)		4 (9.5)	42
45 - 54	31 (73.8)	1 (2.4)	3 (7.1)		3 (7.1)	4 (9.5)	42
55 and +	23 (82.1)		4 (14.3)		1 (3.6)		28
Total	106 (75.7)	2 (1.4)	17 (12.1)	2 (1.4)	4 (2.9)	9 (6.4)	140

Source: Survey results

Incomparably, a great proportion (65 per cent) of cooperative members joined the cooperative societies prior to 1991 and 12.14 percent joined between the years 2004 – 2007 (Table 4.13). The lowest percent is seen in the years 1991 – 1994 which was the transition period after the previous government. Some people who have inherited the share of their parents consider the year when the parents join the cooperative as their own and reply the same for the interview.

Table 4.13 Distribution of members by the year of joining the cooperative

Year Of Membership To Cooperative	Age Group of Respondents					TOTAL
	Below 30	30 - 39	40 - 49	50 - 59	65 +	
Before 1991	2 (16.7)	15 (41.7)	27 (67.5)	36 (90.0)	11 (91.7)	91 (65.0)
1991 - 1994			4 (10.0)	2 (5.0)		6 (4.3)
1995 - 1999	1 (8.3)	8 (22.2)	4 (10.0)			13 (9.3)
2000 - 2003	3 (25.0)	5 (13.9)	2 (5.0)	2 (5.0)	1 (8.3)	13 (9.3)
2004 - 2007	6 (50.0)	8 (22.2)	3 (7.5)			17 (12.1)
Total	12 (8.6)	36 (25.7)	40 (28.6)	40 (28.6)	12 (8.6)	140 (100)

Source: Survey Results

4.2.2. Marketing Efficiency

4.2.2.1. Introduction

An efficient market is one that accurately incorporates all known information in determining prices of the commodities of agricultural products benefiting the producers and fulfilling the demands of consumers. The food marketing system is the arena for two important tasks: [I] the physical marketing functions required to transform the commodity in time, space and form; and [ii] the communication of signals to producers and consumers about the cost of buying something or the benefits of selling it.

Marketing efficiency is therefore determined by the technical efficiency and the price efficiency of the marketing system. Technical efficiency deals with all aspects of raising productivity in all marketing functions such as storage, transportation and processing and thus determines marketing costs. Cooperative marketing system must adjust to increased competition for the cooperatives to prosper or they will stagnate and die. To be competitive cooperatives must be efficient in their pricing and technical accomplishment. The research main emphasis is to deal with issue of marketing efficiency and the underlining result is presented in detail.

4.2.2.2. Technical or Operational Efficiency

Management of the Union and the Affiliates

Based on the legal provisions, i.e. the proclamation provided for the establishment of cooperative societies (147/98), and the underling bylaws of cooperatives, the General Meeting of Members normally delegates the operational control and executions of tasks of the co-operative to the management committee. The committee controls the work of the co-operative on behalf of the members. Each affiliated cooperatives of the union has 21 board

members among whom 7 are elected and assigned to be executive committee members. The committee made to have one chairman, one secretary and one treasurer. The rest four individual are standing members of the management committee. Ther are three persons elected by the general meeting to carryout the controlling functions over the performance of the executive committee. Both the executive committee and the control committee are responsible to the general meeting of the cooperative. As per the data collected from the office of the primary cooperatives, each primary cooperative is serving on the average for about three rural kebeles

In terms of education, 43.0 per cent of the leaders of cooperatives are able to read and write, the other 38.6 per cent attain elementary education, 8.6 per cent have got junior level education, and the rest 10 per cent of the total have studied secondary education (Table 4.14). The overall educational attainments of the cooperative leaders enable them to run the desirable functions of the societies properly.

Table 4.14 Cooperative leaders by level of education 2007

Primary Cooperatives	**Total count**	**percent**
R & W	30	42.9
3 - 6th (Elementary)	27	38.6
Junior (7 & 8th)	6	8.6
9th & above	7	10.0
Total	70	100

Source: Survey Results N.B R & W = Reading and Writing

The union has a similar structuring as the primary cooperative but its general meeting consists of 6 representatives from each affiliated cooperative. Therefore the general meeting of the union at present consists of 336 persons. The union has 11 board members that are responsible for executing the function of the union with an elected chairman, secretary, treasurer and a member. All are assigned to work in the office regularly. Structurally the

primary cooperatives and the union have a post to assign or appoint a manager to work as the chief administrative officer of the cooperative.

Employed manpower

The union and the affiliated cooperatives created employment opportunities for many jobseekers in rural and urban areas. The field data collected from primary cooperatives disclosed that the affiliated cooperatives and the union totally employed about 267 workers (5.2 per cent are female) Table 4.15. The union alone employed 23 persons for different posts. The qualification of the manpower is concentrated at higher school level from grade 9 – 12 representing more than 50 per cent of the total.

Table 4.15 Employees of the union and affiliated cooperatives by level of education

Level of education	Male	Female	Total
Literate	30		25
1 -4	4.3		3.6
5 - 8	7.1		6
9 - 10	20	21.4	20.2
11 - 12	24.3	50	28.6
Certificate	0	14.3	2.4
Diploma	12.9	14.3	13.1
Degree	1.4	0	1.2
Total	**100**	**100**	**100**

Source field data

Training

About 7 management committee members from each cooperative and more than 172 from the union have got some kind of training on cooperative management by the government and other organizations for the last five years. Some accountants and storekeepers from primary cooperatives and the union were also trained in the respective fields. However, there is complain from the management bodies of the cooperatives and employees that they are lacking sufficient training on the operation and management function of the cooperatives.

Office terms of elected members

The proclamation, no 147/1998, provided for the establishment of cooperative societies, in its section 23 articles 2 and 3 states that the term of office for the management committee is three years and the members of the management committee will not be elected for more than two consecutive terms. If the proclamation is implemented properly, the maximum office term of the members of the existing committees, with equal chance of being elected for two consecutive terms, will be 6 years, but we find that nearly 3 per cent of all the members are in office for more than 6 years. More than 41 per cent of the management committee members of the primary cooperatives as shown in the table 4.16 have got a chance to be elected for two and above terms

Table 4.16 Office terms of the primary cooperatives management committee

Number of office years	Counts	Percent
Below 1 year	14	20
1	7	10
2	11	15.71
3	9	12.86
4	9	12.86
5	7	10
6	11	15.71
7	1	1.43
16	1	1.43
Total	70	100

Source survey results

Some of the ordinary members did not want to see such practice, and consider the cooperatives as if it is the government office rather than their own organization established for the empowerment of members. For this and other related management issues of the cooperatives, the researcher has tried to gather the evaluative ideas of the farmers and the responses are depicted in the table no 4.17

Table 4.17 members Evaluation on the existing cooperative leadership

Age of the respondent	Evaluation of leadership quality by members												Total
	Very strong and participatory		Strong and better		Fairly well		Weak and disorganized		Dictator and poor participatory		indifferent		
Below 25	3	(100)											3
25 - 29	2	(22.2)	2	(22.2)	3	(33.3)	2	(22.2)					9
30 - 34	8	(50.0)	4	(25.0)	2	(12.5)	2	(12.5)					16
35 - 39	7	(35.0)	5	(25.0)	5	(25.0)	3	(15.0)					20
40 years & +	32	(34.8)	32	(34.8)	14	(15.2)	9	(9.8)	4	(4.3)	1	(1.1)	92
Total	52	(37.1)	43	(30.7)	24	(17.1)	16	(11.4)	4	(2.9)	1	(0.7)	140

Source: Survey results

A Considerable proportion of the individual members, (nearly 32 per cent), disclosed their dissatisfaction on the nature of the management or leadership of the management committee. The younger members who are below 25 years did agree on the strong and participatory leadership of the committees. This may be related with their stay in the cooperative membership. However, there is a great need to review the existing management quality and the desirable democratic principle of the cooperative societies and to strengthen the newly growing institutions for the rural population.

In relation to the members' participation such as attending the meetings and respecting the call of the cooperative for different issues for the management of the cooperative societies, the survey result disclosed that 36 respondent or about 26 per cent of the total respondents did not participate in the meetings they invited for. Being busy on household occupation, such as farming and other cultivation work, and market are among the outstanding reasons (50 per cent) for missing the meetings of cooperative Table 4.18. Community work like wedding, funereal ceremony, other religious and cultural festivals are contributing for members' being absent from the meetings of the primary cooperatives.

Table 4.18 Responses on the reason not attending cooperative meetings

Age of The Respondent	Reasons For Not Attending					Total
	Household Occupations	Community Works	Poor Importance of Attending	Weakness of committee	Others	
25 - 29		1 (50.0)			1 (50.0)	2
30 - 34	2 (40.0)	2 (40.0)			1 (20.0)	5
35 - 39	4 (66.7)		1 (16.7)	1 (16.7)		6
Below 40	12 (52.2)	5 (21.7)			6 (26.1)	23
Total	18 (50.0)	8 (22.2)	1 (2.8)	1 (2.8)	8 (22.2)	36

Source: Survey results

Cooperative members also disclosed that the management committee failed to invite them in the meetings as expected. Particularly those members within the age cohorts below 25 years (66.7 per cent), 60 - 64 years (33.3 per cent) and 45 - 49 years (22.2 per cent) have responded that they were not invited at all though they are the full members of the cooperatives. Such a trend is not expected from a democratically organized social institution; it should rather promote an active participation of the members in the management and control of the cooperative system. Poor democratic culture and less members' participation in many issues of the cooperatives inevitably affect the grain marketing relation of the primary as well as the union with the ordinary members.

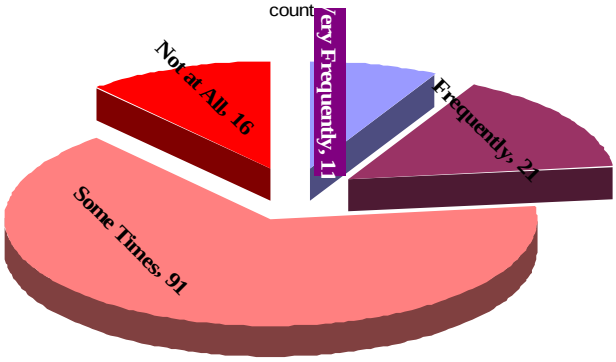


Figure 3 Distribution of responses on frequency of invitation for meetings
Source: Survey results

Grain Production

Grain production is the primary pace for grain marketing because marketing activities start from the planning stage, i.e. when the farmer decides to cultivate a particular grain with an intention to market it and gain financial benefits for his household economy. The survey tried to assess the grain production in relation to the size of the cultivated land possessed by each member, the type of draft power used to cultivate the farmland, the use of farm inputs, the cost of production incurred and also the purposes of grain production, i.e. the intention of the farmer to produce a particular grain.

There is an important seasonal pattern to the production and marketing of cereals in Ethiopia. Due to the rain-fed nature of agriculture, the grain market depends primarily on the major harvest season, the *meher,* which occurs from November through December (Eleni). The nature of the cultivation of the study area is characterized largely by a mono season cultivation, which is locally known as a Meher Season area. The type of cultivation is predominantly rain fed and few (2.14 per cent) of the households are using irrigated farming.

When Grain production is related and targeted with the aim of marketing output, it is successfully improved either in quantity and quality of production to meet the demands of market forces. Research made in many parts of the world have tried to show the contribution of markets in forecasting agricultural productions and in turn the productivity of agriculture in maximizing market transaction (Peet 1995:1) and Braudel and Holton as cited by Bromley (1984: 149) and Moyer (1965: 2), have underlined that there is an inter dependence between the development of markets and agriculture. This means that the growth of market centers has been associated with the development of agriculture or grain marketing and vice versa in different parts of the world.

According to the household survey, the entire cooperative members (more than 94 per cent) have participated in the production of food grain aiming at marketing some of the product. Consequently, grain production in the survey area is an integral part of grain marketing. The union grain marketing mostly depends on the production of the member farmers and others interested to supply their produce for the union market. Therefore, the outputs of the household survey and government statistics used in this report will have a large area coverage and population.

Size of Cultivated Land

A farmland is the basic component or factor of the agricultural production. Its size, fertility and accessibility for marketing and the farm management and tenure systems are important elements for better production and income development. The survey result revealed that the average size of the cultivated land possessed by the member farmers has been found to be 1.83 ha per household. The average size is significantly higher than the Regional averages i.e. 1.14 ha, 1.22 ha and 1.31 ha for the Region, South Gonder and West Gojjam Zones respectively (CSA: 2006). The obtained result shows that the farmers are in a better condition to produce more grain as compared to other parts of the region. The minimum holding size was about 0.125 ha in Mecha woreda and a maximum of 4 ha in Bahir Dar zuria woreda and Mecha woredas.

Table 4.19 Households by range of cultivated land (ha) in 2007

Sr.N	Size of Hectare	Per cent of households
1	Below 1 ha	4.35
2	1 - 1.99 ha	44.93
3	2 - 2.99 ha	38.41
4	3 - 3.99 ha	10.14
5	4 & above ha	2.17

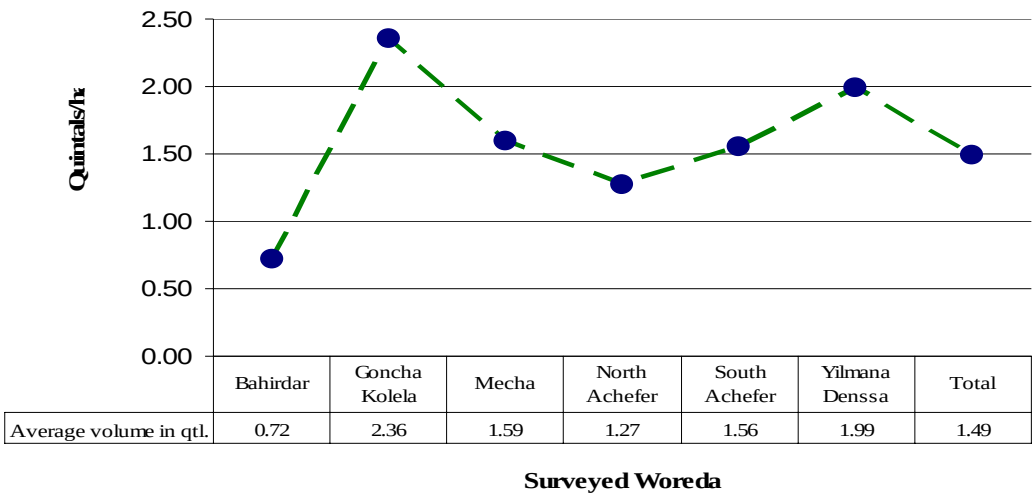
Source: Survey Results

The minimum hectare of the cultivated land is belonged to 4.35 per cent of the households and the maximum or larger size farm are possessed by 2.17 per cent of the households. Hence,

as shown in table no 4.19, the majority of the small holders were fall within the range between 1up to 3 hectares.

The Use of Farm Inputs

The size of the cultivated land coupled with other factors, such as the use of improved technology adopted inevitably; contribute to have marketable surplus in the area. Particularly, the application of fertilizer is most important factor to improve agricultural productivity. The survey result shown in figure 6 disclosed that, except Bahir Dar zuria woreda as discussed by respondents, the application of fertilizer in the area is exceeding 1 quintal per hectare of a cultivated land. It is well understood that the intensification of smallholder agriculture is critical to the future economic development, i.e. to ensure food security and employment for young generation. This level of fertilizer application inter alia has a great impact on the yields of agricultural production.



	Bahirdar	Goncha Kolela	Mecha	North Achefer	South Achefer	Yilmana Denssa	Total
Average volume in qtl.	0.72	2.36	1.59	1.27	1.56	1.99	1.49

Figure 4 Fertilizer Utilization/ha of cultivated land in the study area 2007
Source: survey results 2007

The discussions conducted with the farmers for this survey revealed that the average production per hectare for maize crop couldn't exceed 30 to 40 quintals. They emphasize the delivery problem of fertilizer in a sufficient quantity and time. The problem of the farmers in relation to fertilizer application for better productivity in the survey area is not a matter of

understanding or the socio-economic conditions of the farmers such as age, education, household size, landholding size, livestock ownership it is rather the ever-increasing price and timely delivery. They strongly condemn the suppliers for their delayed supply which affects the cultivation and productivity of the grain. The farmers usually dump the delayed fertilizer rather than applying it because they fear that the application shall spoil the grain productivity. Thus, the union is largely responsible for the delivery problem. It is one of the biggest fertilizer importers and suppliers covering the wide areas of the Amhara region including North Shewa zone.

Improved seeds and pesticides

The survey result shown in Table 4.20, disclosed that around 55 per cent of households in the survey area utilized up to 0.20 kgs of seeds, and some 26 per cent applied from 0.21 – 0.40 kgs. Few (19 per cent) applied above the stated volumes of improved seeds. Regardless of the volume, which is related to the size of the cultivated land, nearly all of the farmers (98 per cent) use to apply improved seeds. The cost incurred for the seed vary from woreda to woreda; the minimum was found to be birr 138.14 in *Goncha Kolela*, where as the highest was birr 439.86 in South Achefer woreda. The overall or the average cost of the improved seed in the area was birr 239.98 in the last cropping season.

Table 4.20 Farmers applied improved seeds and average cost incurred

Surveyed Woreda	Farmers		Total Cost in Birr	Average Cost/hh in Birr
Bahirdar	19	(100)	2666	140.33
Goncha Kolela	9	(100)	1243	138.14
Mecha	43	(97.7)	11458	266.47
North Achefer	24	(96.0)	5737	239.04
South Achefer	14	(100)	6034	430.96
Yilmana Denssa	28	(96.6)	5740	204.99
Total	137	(97.9)	32878	239.98

Source: Survey Results

Fair delivery of seeds is also expected from cooperatives for each member as much as fulfilling the quantity demanded and timely supply. Some farmers strongly condemn the

cooperatives for certain unfair distribution and delayed supply. The union should work hard to avoid the malpractices of some leaders and sales workers.

The farmers applied both liquid and powder form of chemicals for clearing pests and weeds. 25 per cent of the rural households in the survey area, particularly 89 per cent in Goncha Kolela woreda and 58.6 per cent of farmers in Yilmana Denssa woreda use to apply chemicals in their grain cultivation in the last harvest season (2006/07) (Table 4.21). The average volume of the chemical applied per household was 1.15 liter.

Table 4.21 Farmers applied chemicals for grain production in 2006/07

Surveyed Woreda	Total sample households	Total farmers applied chemicals	Per cent of farmers applied pesticide
Bahirdar	19	8	42.1
Goncha Kolela	9	8	88.9
Mecha	44	1	4
South Achefer	14	1	7.1
Yilmana Denssa	29	17	58.6
Total number of farmers	140	35	25

Source: - survey results

Labor Input

The use of human labor in traditional agricultural practice is among the basic inputs. Almost all functions of cultivation starting from land preparation to the final work of threshing and transporting the yield to home as well as market is performed through the use of human labor. Particularly, the plough of farmland and harvesting of crop require huge labor in terms of man-days. Households mainly utilized family labor to cover 80 per cent of the man-day and the rest 20 per cent covered with the use of hired labor. There is a great difference among the survey woredas in terms of the use of hired labor. Households in Goncha Kolelal and Yilmana Denssa woredas cover 60 and 44 per cent of man-day requirements of the grain production through the use of hired labor, where as it is too low in other woredas. This may relate with the socioeconomic conditions of each woreda; it needs further investigation.

Table 4.22 Utilization of labor by sources for grain production

Woreda	Man Days by Sources of Labor			Total
	Household	Hired	(Per cent) of Hired labor	
Bahirdar	370	11	(3)	381
Goncha Kolela	119	182	(60)	300
Mecha	236	20	(8)	255
North Achefer	221	66	(23)	287
South Achefer	284	11	(4)	295
Yilmana Denssa	149	118	(44)	266
Total	234	60	(20)	294

Source: - survey results

Major Crops Produced

The survey result revealed that the smallholders in the study area commonly favor the production of maize crop. It holds the leading position in volume and cultivation area coverage. Almost all households (99.3 per cent) have produced maize crop in the last harvesting 2006/07 season. It is also shown in various documents that the cultivation of maize in the area is an age-old tradition among the rural communities of the West Gojjam zone. The yield of maize per hectare in the area is also higher than the regional average, 26.55 against 23.05 quintals (Table 4.23). According to CSA data for the year 2006/07, the share of the cultivated land in the study area covering the entire West Gojjam zone too, planted for maize was about 28.17 per cent of the total cultivated land allotted for grain production and 36.40 per cent of land covered with cereals.

Table 4.23 Areas and production of cereal crops in Amhara region, 2007

Type of cereal Crops	Amhara Region			West Gojjam			South Gonder		
	Area Covered Percent)	Yield	HH (percent)	Area covered (percent)	Yield	HH p (per cent)	Area covered (per cent)	Yield	HH (per cent)
	2761170	Quintal/ha	3151137	389848	Quintal/ha	387294	364609	Quintal/ha	399619
Maize	13.65	23.05	67.80	36.75	26.55	95.95	12.49	15.99	78.95
Teff	34.02	10.35	63.75	30.36	8.34	62.65	36.43	8.12	74.50
Wheat	15.49	15.94	42.42	12.01	16.09	32.73	16.65	10.41	45.77
Barley	12.72	13.39	44.34	8.26	14.07	29.83	15.13	10.11	57.65
Sorghum	17.43	16.40	36.44				8.59	13.12	30.90
Finger Millet	6.41	12.32	17.08	12.62	11.03	36.95	10.71	11.64	33.18

Source: CSA, area and production of crops vol 1 July 2007

The West Gojjam Zone, in which the larger area of this study is located, is the leading area among the major maize producing zones of Ethiopia, holding 10.7 per cent share of the national maize production. Other 11 zones share less than 9 per cent of the total production for each (CSA). Though, agricultural productivity in Ethiopia is very low compared to other Sub-Saharan African countries, the yield of maize crop in the study area is higher for eastern and southern Africa which is 26.65 versus 23.00 quintals per hectare (Rates, 2003). Thus, the extent of the production in the area indicates that any intervention designed for the development of agricultural production, either the promotion of grain marketing or industrial processing should give sufficient emphasis for maize grain better than others.

All the farmers (99.3 per cent) produce maize crop. *Teff* followed by *Dagussa* are the second and third food grain commonly planted in the study area. As per the survey results 76.4 and 65 percent of smallholder farmers produce *Teff* and *Dagussa* crops respectively (Table 4.24).

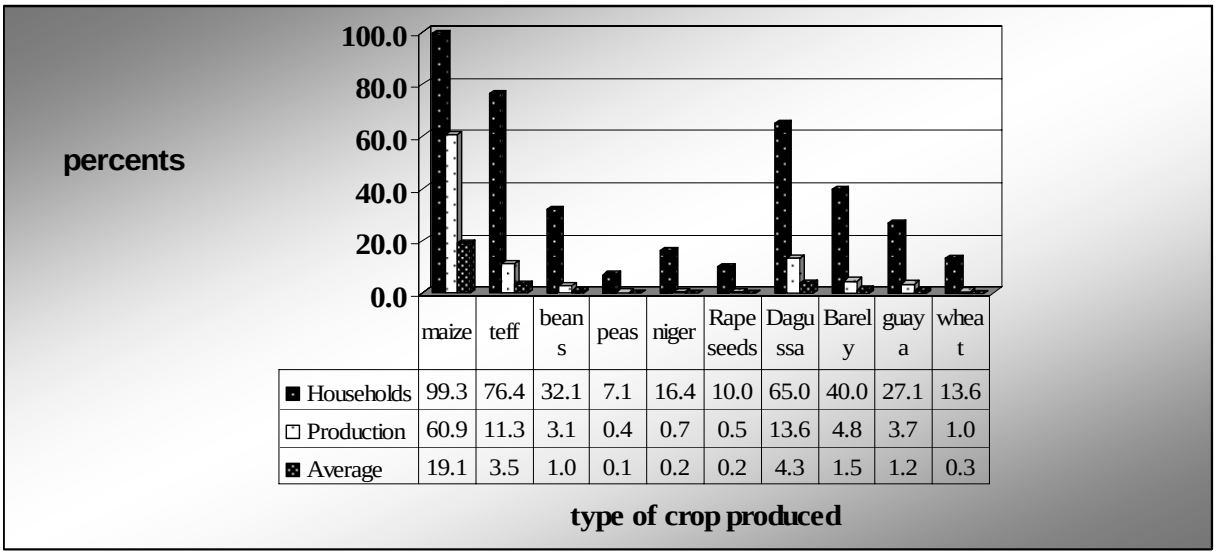
Table 4.24 Distribution of the Type of Food Grain Produced in the Study Area

List Of Grain	Bahirdar	Goncha Kolela	Mecha	North Achefer	South Achefer	Yilmana Denssa	Total
Maize	100	100	100	100	100	96.6	99.3
Beans	52.6	44.4	2.3	56.0		55.2	32.1
Teff	94.7	100	45.5	76.0	85.71	100	76.4
Peas	5.3	22.22		20.0		6.9	7.1
Rapeseeds	15.8		20.5	8.0			10.0
Niger Seed	31.6		25.0	16.0		6.9	16.4
Dagussa	94.7		93.2	76.0	92.86		65.0
Barely	57.9	55.6	13.6	60.0	7.14	62.1	40.0
Guaya		77.8	2.3	16.0		89.7	27.1
Wheat		55.6				48.3	13.6

Source: Survey results

The farmers prefer the production of maize for its high yielding and for its market demand as depicted in the figure 7. Thus, about 61 per cent of all grain produced with 19.1 quintals per household are the share of maize. This is an indicator that traders and cooperatives should

give more attention to maize crop marketing and any development intervention to improve the agricultural productivity may be effective if it is interested for the maize crop.



	maize	teff	beans	peas	niger	Rape seeds	Dagussa	Barley	guaya	wheat
Households	99.3	76.4	32.1	7.1	16.4	10.0	65.0	40.0	27.1	13.6
Production	60.9	11.3	3.1	0.4	0.7	0.5	13.6	4.8	3.7	1.0
Average	19.1	3.5	1.0	0.1	0.2	0.2	4.3	1.5	1.2	0.3

Figure 5 Percent of households producing grain and average volume/hh (qtls)
Source: survey results

The cultivated land covered with the crops in the last cropping season is significantly higher with 23.27 and 30.06 per cent, and 9.67 and 12.50 of the total land allotted for grain and cereals was covered with *Teff* and *Dagussa*. Other crops like beans and peas among pulses and wheat from cereals are the chosen crops for the farmers of the area. Niger seed is considered as a cash crop and produced by about 14 per cent of the households. It shares 67.8 per cent of the farmland cultivated for oilseed crops in the study area.

Costs of production

Grain production is intensified with good marketing opportunities for rural producers. According to Ahmed (1984: 5) as cited by Mohammed Nurzein (1999: 33), an effective marketing system is a precondition to strengthen agricultural production thereby to provide the necessary production incentives to the farmers, transfer surplus food to urban areas, and exercise a price stabilizing and a stock holding function. Marketable surplus production of

grain is thus a function of the level of prices, size of plots cultivated and the technique of production adopted

Table 4.25 Cost of production versus household expenditure per HH in the survey area in 2007

Cost Items	Per cent of households making the cost	Average cost in birr	Per cent Share of the Item from Total
Farm Expenditure	100	2387.81	43.08
Purchase Of Livestock	51.43	1663.25	30.01
Household Requirements	99.29	1373.73	24.78
Social Obligations	97.86	118.34	2.13
Total Expenditure	100	5543.13	

Source: survey results

Grain production costs at peasant cultivation level for this research include the following variables. Assessing the traditional farming system of the area, and the major cost items for private peasant farming that are classified in to: 1) Farming expenditures consisting of the cost of improved seeds, fertilizers (DAP and UREA), pesticides, labor (household and hired one) and other costs as explained by the respondent, 2) Livestock purchases for farming As depicted in Table 4.25, the share of the farm expenditure with 43.08 per cent of the total agricultural expenditure in the survey areas is allotted to fertilizer. The expenditure for livestock, having 30.01 per cent is becoming the second highest expense because the prices of oxen and other farming animals are increasing at an alarming scale since few years back in the area. Thus, an individual household in the study area will spend an average of birr 5543.13 for his/her grain production per year.

Table 4.26 Average expenditure of households for grain production in Birr

Production input	Percent of households applied	Average cost/household	Share of the input in per cent
Fertilizer	99.29	1019.49	42.70
Seeds	97.86	239.98	10.05
Pesticides	26.43	45.36	1.90
Hired Labor	41.43	527.20	22.08
Other costs	12.86	555.78	23.28
Total cost incurred		2387.81	100

Source: Survey results

The expense of fertilizer is the highest among the items for farming expenditures in the study area. The households have also utilized their member for grain production since the time of land preparation to harvesting, threshing and storing the output. The estimated cost at normal wage rate in the rural area is found to be Birr 1939.85/household for a single cropping season.

Table 4.27 Summary of costs and volumes of grain production in 2007

Number of Respondents	140
Total Grain Production (Quintal)	4377.49
Average Quintals/Household	31.27
Average Cost/Household (Birr)	1548.90
Average Cost/Quintal (Birr)	49.54

Source: survey result

Grain Storage System

The need for storage comes from the inherent characteristic of agricultural production, which is seasonal in nature whereas demand for grain is generally continuous throughout the year. Storages are designed and expected to allow a smooth, and as far as possible, uninterrupted flow of product into the market. This means that storage, particularly grain storage, whether it is traditionally built under the roof of the primary producer or constructed in a modern way in an upright or a flat form, has time and physical functions for post harvest handling of agricultural commodity marketing system

In Ethiopia, as common in other developing countries, agricultural supply often exceeds demand in the immediate post-harvest season. The excessively marketed grain during this time reduces producer prices and wastage rates can be extremely high. After the glut passed, a short supply can be stored in the farmers' store speculating a better market price from traders and consumers. The storage function is one of the balancing supply and demand for grain marketing.

Both growers and consumers gain from a marketing system that can make produce available when it is needed using efficient and effective storage service. This service inevitably costs money and risks in the form of wastage and drops in market demand, prices, so the provider of storage may be the cooperative or wholesaler who is entitled to a reward in the form of profit.

Grain storages require too much care and handling as far as they contain biological materials sensitive for different environmental conditions. Food grain, most of the time, is spoiled before it reaches the final consumers due to traditional storage system and poor post harvest handling. Grain requires proper handling, protection from different hazards and spoiling agents, and appropriate storage skills. The guideline, prepared by the logistic department of the central planning and development campaign supreme council of the Derg regime in 1978, for post harvest handling states that a particular food grain can stay up to a year without losing its quality if its moisture content is maintained below the following per cent through proper storage system.

Table 4.28 Distribution of grain by their maximum moisture contents for proper storage

Sr.N	Crop type	Maximum per cent of moisture content	Sr.N	Crop type	Maximum per cent of moisture content
1	Wheat	14.5	7	Rape seeds	10.5
2	Barley	14.8	8	Corn	15.5
3	Oats	14.0	9	Sunflower	9.5
4	Sorghum	14.0	10.	Mustard	11.0
5	Niger seeds	15.5	11.	Peas	16.0
6	Linseed	15.5	12	Lentils	12.0

Source: Logistics department of central planning council 1978

According to the World Food Program in relation to the physical quality requirements, grain should achieve the following quality standard:-

WFP Grain Quality parameters < 14.5 per cent moisture content,
< 5per cent shriveled (dried-up), diseased and discolored grain
< 3per cent insect damage < 2per cent broken grain
< 4 per cent of colors < 0.5 per cent foreign matter
Have a fumigation certificate and contain 0per cent live insects

The need for modern storage system, particularly for grain marketing cooperatives, is not only to keep the quality and quantity of the grain purchased during the harvesting seasons but it is also important and a prerequisite for the functioning of warehouse receipt in the modern marketing atmosphere.

Figure 6: Typical Traditional Storage in the Survey Area able to carry up to 5 – 20 quintals of grain

The household level grain storage is carried out by means of primarily traditional oval shaped granaries made of mud as shown in the picture. Almost all rural households regardless of their economic status have such traditional storage in their living room. Usually the carrying capacities vary from a minimum of five to a maximum of holding 20 quintals. The households increase the holding capacity of the granaries by adding pre-molded parts up to the limit of the roof of their houses.

The maize crop, which is the leading in its volume of production and area coverage of the cultivated land, has less than 6 month of shelf life in the producers storage system (*Gotta*, fig 8). The farmers disclosed that, maize naturally unable to stay in store for more than 3 months but they use chemicals to extend the shelf life in to six months. Beyond this time the crop will be spoiled for use. They are eager for marketing the crop and usually sale it for lower price.

Linseed has also a maximum of 6 months of shelf life as that of maize. *Teff* and some other oilseeds can be shelved for a year or above a cropping season.

Table 4.29 Shelf Life of Farmers' Products by Type of Storage Problems

Storage Problem	Shelf Life of Grain at Peasant Household in Months						Total
	1 month	2 months	3 months	6 months	1 year	< 1 year	
Rodents	1	1	2	18	48	6	76
	1.32	1.32	2.63	23.68	63.16	7.89	80
Weevils	1	1	1	2	9	3	17
	5.88	5.88	5.88	11.76	52.94	17.65	17.89
Termites and others					2		2
					100		2.11
Total	2	2	3	20	59	9	95
	2.11	2.11	3.16	21.05	62.11	9.47	67.86
Non response							45
							32.1
Total respondents							140

Source: survey results

The households' give emphasis to the problem caused by rodents, particularly rats and weevils are the major problem where as termites and others are lesser in affecting the storage system. The union and its affiliates should give better attention to grain storage system to the extent of constructing modern warehouses and provision of training on storage management systems for their committee members and employees. The storage system should be easily accessibly for the farmers as well as transportation facilities

The primary cooperatives and the union generally store grain in warehouses with an average holding capacity of 332 tones for the primary cooperatives and 1000 tones for the union. Two types of storage facility are commonly found, namely: the bulk storage facilities owned by Ethiopian grain trade enterprise constructed during the Derg Regime and the bag storage facility where the crop is stored either inside a warehouse or in the open air and then covered by tarpaulin sheets. In comparative terms, the advantages of a bulk over a bag storage system are that it is more efficient because it reduces congestion at the depots by not allowing the bagged maize to be dumped all over the depot yard; reduces handling costs; saves foreign

exchange on bags, tarpaulin and fumigation, and lowers storage losses **(**Rats**). A** significant number of warehouses of the primary cooperatives are with poor ventilation and dirt floors. Some warehouses are found difficult to serve during the rainy season due to the untreated courtyard, i.e. the courtyards are not drained well and covered with gravels to carry heavy vehicles.

Table 4.30 Type of stores and carrying capacity in the cooperatives 2007

Type of Floor	Conditions of roof and walls of stores			Total
	Wooden and mud plastered walls & thatched roofs	Wooden and mud plastered walls with corrugated iron roofs	Masonry walls with corrugated iron roofs	
Uncovered or earthen floor		4		4
Carrying capacity (qtl)		11500		11500
Cemented	1	21	2	24
Carrying capacity (qtl)	2,500	74,450	4500	81,450
Total	1	25	2	28
Carrying capacity (qtl)	2500	85,950	4500	92,950

Source: Survey results

The problem of the warehouses is not only in quality but also the cooperatives including the union don't have skilled storage personnel to maintain and manage the storage system as much required as possible. The cooperatives handle it traditionally and do not worry about it due to ignorance. No specific training on store management is given to employees of cooperatives in the survey area. The researcher made field observation on the conditions of the existing storages. Almost all stores except few like meshenti, Yismala and Dilamo Lalibela were constructed prior 1991 for the purpose of commodity storage during the Derg Period. The courtyards as well as the enterior parts of the sores are poor (fig 10). The mudy and undrained field in front of the stores is seems difficult to use heavey truk during rainy seasons. Some store donot have sufficient windows that inlet and outlet ventilation and light entry.

Figure 7 Abchikli coop warehouse

Figure 8 Wotete abay cooperative Warehouse

Of the total grain production, 63.5 per cent is retained for on-farm uses or household consumptions. However, a weak storage infrastructure leads to potentially high storage losses, with crop vulnerability to be damaged by weevils and termites (about 18 per cent of the storage problems), rodents (80 per cent of the problems), birds, moisture and misuse of household members (nearly 2 per cent of the problems). Due to such storage problems combined with the vulnerability of crops to damage, the majority of the farmers do not store grain particularly maize for more than one production season. Two modern storage facilities, one at *DEBREMEWE* and the other at *KORE*, that were the legacy of the Derg state-controlled grain-marketing system prior to the reform are serving for the primary cooperatives. There are 2,200 modern warehouses that were used during this period in the country to extract quotas from producers at the fixed prices (Eleni. 13).

Table 4.31 Shelf life of crops in the warehouses of primary cooperatives

Type of crops	Range of shelf life in months								Responses of primary cooperative leaders
	Below 6		6 - 8 months		9 - 12		> a year		
Niger seed			5	62.50	1	12.5	2	25.00	8
Maize	2	50.00	2	50.00					4
Teff			2	40.00	3	60.00			5
Rapeseeds			4	66.67	1	16.67	1	16.67	6
Beans			2	50.00	2	50.00			4
Linseed			1	100.00					1
All grain	2	7.14	16	57.14	7	25.00	3	10.71	28

Source: Survey Results

Transportation

Transportation is a key element that plays a significant role to intensify the grain marketing functions in rural areas. Transport services and facilities are naturally important infrastructure for every aspect of socioeconomic lives either in rural or urban areas; especially it is largely important for grain marketing since the bulkiness of grain is a big problem for the rural households to move from farms to storage or from home to markets. Pack animals, particularly donkeys, play a crucial contribution for transportation in all woredas covered by this research. Particularly in Bahir Dar, Goncha Kolela, Yilmanadenssa which are relatively mountainous and unsuitable topography and others donkeys are crucial for transportation. Carts that are pulled by mules and donkeys are excessively utilized in south Achefer, Mecha woredas and they totally cover nearly 43.6 per cent of the transportation services in the rural kebeles both at field level and market transportation.

Table 4.32 The type of transport to take grain to the market by survey woreda

Type of transport	Woreda Distribution												Total	
	Bahirdar		Goncha Kolela		Mecha		North Achefer		South Achefer		Yilmana Denssa			
Shoulder			1	(11.1)					1	(7.1)	2	(6.9)	4	(2.9)
Donkey	18	(94.7)	8	(88.9)	13	(29.5)	16	(64.0)	1	(7.1)	18	(62.1)	74	(52.9)
Cart	1	(5.3)			31	(70.5)	9	(36.0)	12	(85.7)	8	(27.6)	61	(43.6)
no response											1	(3.4)	1	(0.7)
Total	19	(100)	9	(100)	44	(100)	25	(100)	14	(100)	29	(100)	140	(100)

Source survey results

Rural households should travel long distance to reach the nearest market place and to get different services located in urban and semi urban areas by the government and non-

government organizations. The larger size of respondents, that represent more than 35 per cent, say that they need to travel 1 to 2 hours, and nearly 25 per cent of them state that they have to walk up to 3 hours to reach at the market place. There are a significant number of individual members in Yilmanadenssa woreda 24 per cent and about 23 per cent in Mech*a* woreda who have to walk more than 3 hours single trip to reach the nearest market. This shows that the cooperative members are scattered around the entire parts of each survey woreda. These long distances are tempting the farmers and they are eager to have better access for marketing facilities and services.

Table 4.33 The walking hours required reaching the nearest market and range of hours

Range of Hours	Woreda Distribution												Total	
	Bahirdar		Goncha Kolela		Mecha		North Achefer		South Achefer		Yilmana Denssa			
Below 1hr	8	(42.1)	2	(22.2)	2	(4.5)	8	(32.0)	3	(21.4)	10	(34.5)	33	(23.6)
1.00 - 1.59	7	(36.8)	4	(44.4)	18	(40.9)	10	(40.00	4	928.6)	6	(20.7)	49	(35.0)
2.00 - 2.59	4	(21.1)	2	(22.2)	14	(31.8)	3	(12.0)	5	(35.7)	6	(20.7)	34	(24.3)
3 and above			1	(11.1)	10	(22.7)	3	(12.0)	2	(14.3)	7	(24.1)	23	(16.4)
No response							1	(4.0)					1	(0.7)
Total	19	100.0	9	100	44	100	25	100	14	100	29	100	140	100

Source: Survey results

Understanding the transportation problems and recognizing the competitions with the cooperative societies, the cunning traders and grain collectors particularly in the peak-harvesting season establish their momentary grain assembly sites in the remote villages. The union and its affiliates are establishing their grain assembling sites in woreda centers or where the primary cooperatives are located. In this regard, the grain marketing function of the cooperatives and the union is not yet assisting the individual member to be empowered in the marketing of his agricultural outputs, reduce their burden and creating belongingness for cooperative society. The traders are price makers and information providers to the farmers on the prevailing grain prices. Traders can recognize that the farmers who have economic problems and that they need immediate solutions without preconditions and interest

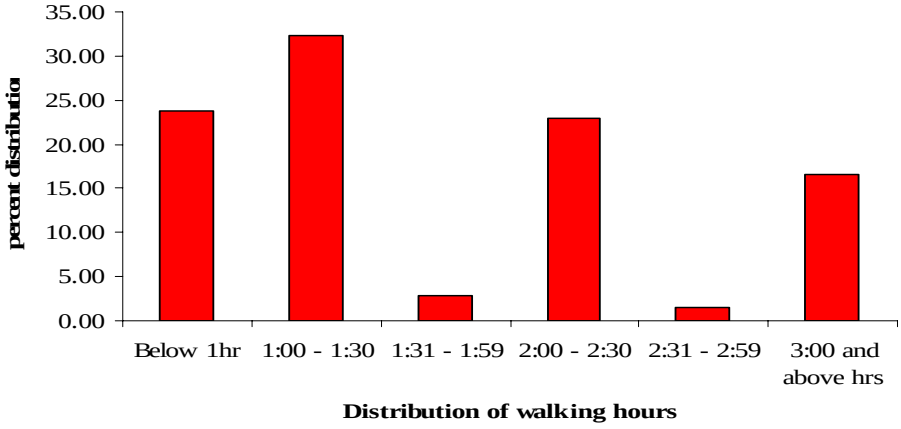


Figure 9 Average walking distance in hrs to the nearest local market in the survey area

4.2.3. Pricing Efficiency

To evaluate the marketing efficiency of an organization, it is necessary to assess the pricing situations so as to observe the challenges and successes in the marketing activities. Conceptually, price is the value of a commodity expressed in terms of money. As per the definition given by Achary, the prices of agricultural commodity refer to the want satisfying power of the commodity expressed in terms of money. Prices of any commodity are volatile particularly agricultural commodity prices are sensitive and highly fluctuating than the industrial commodities. It affects the well being of the agricultural producers particularly in the developing economy.

Agricultural pricing, particularly where the largest proportion of producers are smallholder farmers, is affected by different situations, among others the fluctuation or undesirable price failure occurs due to the gluts of agricultural produces to the local market. During such massive supply of grain, the producer lose his bargaining position and has to sell his marketed surplus immediately in order to pay his taxation and his debts to money suppliers, and others. The limited information the producer obtains on marketing situation, the long distance travel on foot usually carrying heavy load on his shoulder to local market, the problem of storage in

the market areas, and ruthless competition among buyers to grab the produce by a lowest possible price may tempt the farmer to sell his produce for a low price. Such a marketing situation is a fact in the survey areas as revealed by the outputs of the field data processing. Sales of grain, pricing, marketing costs, marketing margins, market information and other relevant pricing efficiency parameters shall be discussed based on the research interest.

4.2.3.1. Sale and purchase of Grain

Grain production in a traditional agriculture is targeted to cover household consumption. Particularly where there is scarcity of farmland and the volume of production is lower, due to traditional cultivation, households are likely to produce the volume of grain they require to cover the household consumption. However, the survey area is one of the surplus producing locations in the country and known for its production of staple food grain. The entire farmers covered by the survey produce grain with the intention of marketing at least half of the production. During the data collection period, the researcher has observed that the farmers have taken almost 36 per cent of the produce to the market. Among the crops 95.5 and 100 per cent of rapeseeds and Nigerseeds respectively were marketed.

Table 4.34 The Proportion of Grain Marketed to the Total Production

Crop Type	Grain Produced	Grain Marketed	Per cent of Marketed
Maize	2668	1122	42.0
Teff	496	145	29.2
Beans	135	62	45.9
Niger seed	32	31	95.5
Rapeseed	23	23	100.0
Dagussa	595	71	11.8
Barely	212	39	18.4
Guaya	163	60	37.1
Wheat	44	7	15.5
Total	4367	1559	35.7

Source: Survey results

Regarding the type of purchasers of grain, the survey result as depicted in the Table 4.35 disclosed that almost 51 per cent of the farmers sold their marketed grain for primary

cooperatives, nearly 44 per cent for retail traders and about 34 per cent for wholesalers. Traders took the lion share (57.7 per cent) to purchase grains from cooperative members in the survey area. In this regard, the union and its affiliates could not be able to purchase more than 31 per cent of the marketed grain from the members. In other words the cooperative societies failed to purchase more than the average, i.e. of 6.91 quintal per farmer, whereas grain traders (retail traders, wholesellers and grain collectors) in general able to purchase 17 quintals per farmer of the cooperative members in the local markets.

Table 4.35 Per cent distribution of the farmers by type of grain purchasers

Group of purchasers	Number of sellers		Volume in quintals		Average quintal/farmer
Consumers	32	(22.9)	173.95	(11.2)	5.44
Retail Traders	61	(43.6)	491.91	(31.5)	8.06
Wholesalers	47	(33.6)	409.49	(26.3)	8.71
Cooperatives	71	(50.7)	483.65	(31.0)	6.81
Total			1559	(100)	

Source: Survey results

The research has tried to see the interests of the farmers in relation to their preference of purchasers who can buy their marketed grain. Theoretically the farmers have responded that they prefer to sell their grain to the cooperative societies, but rather practically make a great contact with other grain purchasers. The underlining result, as depicted in figure 12, shows that the highest percent of the responses (70 percent) of the total goes to the preference of the cooperative societies for grain selling. However, there is a preference difference among the few categories of age group of the respondents, and this is proved by a statistical test using contingency (chi square test) analysis.

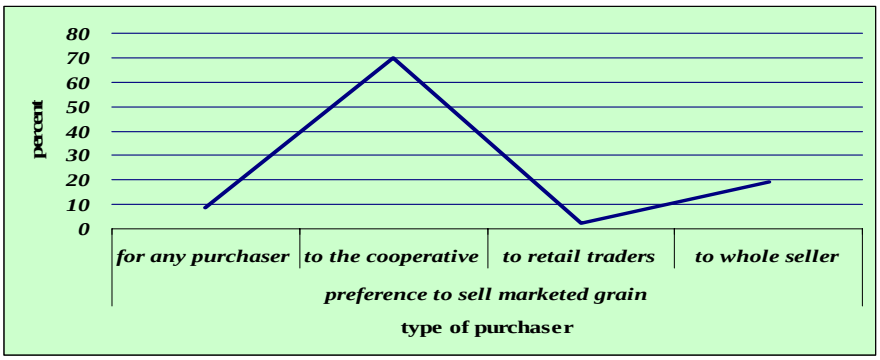


Figure 10 The distribution of farmers' responses in relation to purchaser preference
Source survey results

The chi square test as depicted in the Table 4.36 approved the null hypothesis saying that there are no significant differences among the categories of age groups with respect to purchaser preference for marketed grain in the survey area. The intention of the statistical test is to see the attitudinal difference of age groups to whom they are friendly as compared one another in relation to marketing. The younger, the adult as well as the older farmers inclined towards traders and sold the marketed grain and also cooperatives farmers are more likely to prefer consumers than the other purchasers and older farmers inclined towards the cooperative societies.

Table 4.36 Distribution of farmers by age and type of grain purchasers

Farmers groups	Class of grain purchasers						
	Consumers		Cooperatives		Traders		Total
Younger farmers (fo)	4	a	6	b	11	c	21.0
(fe)	3.6		6.5		10.9		
Adult farmers	7	d	16	e	22	f	45.0
(fe)	7.8		13.8		23.4		
Older farmers	7	g	10	h	21	i	38.0
(fe)	6.6		11.7		19.7		
Total	18.0		32.0		54.0		104.0

Source: Survey results

Assumptions

1. Level of measurement: - Nominal scale (preference of purchasers to sell grain)
Model independent random sample
Hypothesis (Ho): - there is significant difference among categories of age group with respect to preference of purchasers to sell grain
2. Significance level using .001 levels based on the wish to be extremely conservative that means we reject the set of assumptions when they are actually true
3. Degree of freedom: - in a 3X3 table will be determined by df = (r-1) (c-1) (3-1) (3-1) 2X2 = 4
Decision: - ***we accept the null hypothesis*** (Ho) since there are 4 df associated with the 3X3 table we see that a chi square of 18.465 is required to reject the null hypothesis. The null hypothesis at the 0.001 levels is accepted since we obtained a calculated chi-square of 19.639, which are behind to the significance level.

The survey has made an attempt to identify the reason why farmers prefer a particular purchaser to sell their grain. The result shown in Table 4.37 disclosed that better price followed by being beneficiary of the marketing are the major reasons for the farmer to prefer the purchaser. There is a big interest for better price by the young and adult farmers than by older farmers. In relation to being beneficiary of the marketing process, older farmers are relatively more concerned than their younger one.

Table 4.37 Percent distribution of farmers on the reason to prefer particular purchaser by age group

Age of the Respondent	Reason to the Preference of Particular Purchaser				
	Better price and other incentives	being beneficiary	Accessibility of the Market	No Specific Reason	total
Below 30	66.7	33.3	0.0	0.0	100.0
30 - 39	69.4	19.4	11.1	0.0	100.0
40 - 49	72.5	25.0	0.0	2.5	100.0
50 - 59	57.5	32.5	5.0	5.0	100.0
60 and above	66.7	33.3	0.0	0.0	100.0
Total	66.4	27.1	4.3	2.1	100.0

Source: Survey results

It was the interest of this research to see the marketing relation between the primary cooperatives as well as the union with ordinary members. Thus, the respondents were asked to react on how strong and useful the marketing relation with their respective cooperative. The result, as depicted in the Table 4.38 disclosed that above 76 per cent of the respondents have found it useful due to the reason that it pays them high price per quintals than the prevailing market, and also the cooperative provides dividend than the other purchasers. The Merkeb Union and other affiliated primary cooperatives should examine their marketing relation with members since there are people who do not consider the marketing relation as useful as desirable for cooperative societies. Though it is to have a hundered per cent similarity in oppinion among diferent people, the cooperative members are expected to be cohisive with the society they are established and member of.

Table 4.38 Farmers by age group and marketing relation with cooperative found useful

Age of the respondent	Marketing relation with Cooperative useful		
	Yes	No	Not yet clear
Below 30	75.00	16.67	8.33
30 - 39	75.00	22.22	2.78
40 - 49	78.79	21.21	0.00
50 - 59	66.67	33.33	0.00
60 and above	76.26	22.30	1.44
Total	76.26	22.30	1.44

Source: Survey results

More than 30 per cent of member farmers, as portrayed in Table 4.39 did not satisfied with the methods of marketing applied by the primary cooperatives as well as the union.

Particularly, the young farmers below the age of 30 (36.6 per cent) and the old people above the age of 50 years (nearly 36 per cent) responded that they feel dissatisfied with the prevailing method of marketing. As discussed in many parts of this paper, the union and its affiliates could not create the accessibility of market for members as it is done by other grain traders, and the cooperative societies could not disseminate appropriate and timely market information to the farmer so as to help them to decide on the pricing of their marketed grain.

Table 4.39 The responses on satisfaction with the method of marketing of cooperatives

Age of the Respondent	Satisfaction With Method of Marketing	
	Yes	No
Below 30	63.64	36.36
30 - 39	72.22	27.78
40 - 49	72.5	27.5
50 - 59	64.10	35.90
60 and above	90.00	10.00
Total	69.57	30.43

Source: Survey results

the Farmers who exercise traditional marketing practices which are characterized by a poor access of infarastructure, facilities and services suffer from different problems of grain selling. The majority of the repondents (78 per cent) have disclosed their major problems. The leading problem, account for the 38.6 per cent of the sample farmers is the poor price of grain. Transportation is also the other problem representing 15.7 percent of the farmers. Both problems should get proper attention from the union and affiliated coopreratives as far as the meaning of their establishment is conserned.

Table 4.40 Farmers having problems of selling grain in local markets by type of problem

	Type of Problem	Count	Percent
1	Quality	7	(5.0)
2	Transportation	22	(15.7)
3	Poor price	54	(38.6)
4	Competition	2	(1.4)
5	Storage	1	(0.7)
6	Others	23	(16.4)
7	non responses	31	(22.1)
	Total respondent	140	(100.0)

Source: Survey results

The farmers, are, usually forced by external presure and the enforcement of household demand for money to take grain for local market immidiately after the harvesting season. As per the local tradition, the majority of the farmers market their grain starting from February to the month of April. During this period, the price of grain goes down due to the massive supply (glut). Transportation is likely to be the problem of farmers who produce less volume of grain as compared to those who harvest larger volume, above 40 quintals. It may be related with the transaction cost of grain selling.. this may require further investigation.

Table 4.41 Type of problem of selling grain products by volume of grain produced in quintals

Total Production Of Grain In Quintals	Problem of selling products					
	Quality	Transportation	Poor price	Competition	Storage	Others
Below 10		50.00				50.00
10 - 19	4.55	9.09	63.64	4.55	4.55	13.64
20 - 29	3.70	22.22	37.04			37.04
30 - 39	6.67	23.33	46.67	3.33		20.00
40 - 49	17.65	17.65	58.82			5.88
50 and above		27.27	54.55			18.18
Total	6.42	20.18	49.54	1.83	0.92	21.10

Source: Survey results

4.2.3.2. Marketing Costs

For the purpose of this study the marketing costs of the cooperatives for the grain marketing include, handling costs of transport, costs for product loses, storage costs, costs for primary processing if available, and costs of capital

Storage Costs

Storage costs treated in this study include the costs of the primary cooperatives and the union in the study area excluding the individual farm households. The major functions of storages in the primary cooperatives are to keep the purchased crops, particularly cereals, pulses and oilseeds, until the next purchaser come.

Storage costs viable when the produce can be sold after storage at a price higher than the into-store price, with the difference fully covering the costs of storage, as well as offering an incentive to take the risk that a loss may result.Otherwise the storage costs will be burden for cooperatives where there is elongated time without market price improvement or working under the full capacity of the store to distribute the cost for each unit of commodity stored.

To see the detail of the storage costs the researcher categorized the costs in to four groups. The first one are Costs associated with the physical operation of the stores (warehouse) that are the properties of each affiliated cooperatives and rental bases for the union. The costs here made up of factors such as depreciation on the building, security (like insurance, salary expense for store keeper and guards), electricity and other utility costs and maintenance; costs associated with the maintenance of the product quality while it is in the store, i.e., the cost of chemicals; costs related with loss of quality and quantity while the product is in the store which inevitably followed with the financial losses, and costs related with the capacity utilization of the store. The store is incurring cost whether it is at full capacity or empty to the cooperative. That means when it is full the cost will be low while kept empty for long time the cost will be high since depreciation and maintenance costs are continuing through time until the store completely out of use.

The cost of physical operation of storages is found to be the highest of all costs holding the proportion from the minimum of 33 per cent at Dilamo Lalibela primary cooperative to the maximum of 98.6 per cent of all storage costs at Debremewi primary cooperative. A cost for loss of quality and quantity of grain is the second largest cost of primary cooperatives that totally has 8.2 per cent of the costs of all the sample primary cooperatives. In some cases like Dilamo lalibela (66.5 per cent), Adethana (38.6 per cent), and Meshenti primary cooperative

(36.9 per cent) of the storage costs are the share for loss of quality and quantity of grains. (Table 4.42)

Table 4.42 The annual storage cost of primary cooperatives since 2002/03

List of Primary Cooperative	Cost of Physical Operation		Cost of Maintenance)		Costs for Loss of Quality and Quantity		Total Storage Costs
Merawi	29043	(87.6)	3400.5	(10.3)	701	(2.1)	33144
Wotetabay	12900	(79.6)	1982	(12.2)	1314	(8.1)	16196
Abchikli	124018	(96.5)	2800	(2.2)	1680	(1.3)	128498
lalibela	3120	(33.0)	50	(0.5)	6291	(66.5)	9461
Meshenti	6321	(62.8)	30	(0.3)	3714	(36.9)	10065
Kinbaba	3120	(72.1)			1209	(27.9)	4329
Debremewi	2855	(98.6)	40	(1.4)			2895
Adethana	3919	(53.0)	618.8	(8.4)	2856	(38.6)	7394
Woncher	4632	(94.7)			260	(5.3)	4892
Kore	5536	(96.1)	15	(0.3)	208	(3.6)	5759
Total	**195465**	**(87.8)**	**8936.3**	**(4.0)**	**18233**	**(8.2)**	**222634**

Source: Survey results

Transport Cost

The other important cost in grain marketing is the costs of transport that the Union and coops pay out to move the purchased crop from the assembling sites or from the store of primary cooperative to the union store at *Bahir Dar* city and *Merawi* town. As per the field data collected from leaders of each primary cooperative, there is no cost incurred for transportation since their purchased grain collected directly from the farmer at the gate of the store and no assembling sites are there that need transportation.

Financial costs of transport for primary producers or the farmers are the cost for rented carts at *MERAWI*, *WOTETEABAY* and *ABCHIKLI* (*Durbete*) areas to move the marketed grain from home to the local market or the cooperative shop. Other farmers use donkeys and their shoulders, which does not need financial costs to them.

The cooperatives at primary level are not yet own their private truck to transport the crop to local or terminal markets. The union presently procures its own heavy truck with a cost of 1.4

million birr and not yet uses the truck to transport grain from place to place. The union uses rental truck at a rate of birr 0.03958/quintal/kilometer. Thus the calculation of transportation cost of the union is simply made using the rate per quintal per kilometer. The problem will arise after the use of the new truck for grain transportation. This is mainly because the complication of the work and the preparation of the management committee to administer the vehicle are not yet clear to the management committee. They assign an individual to handle the follow up of the truck activity.

The union management has to be aware of the costs they will face when the truck begins to serve. the costs may include the wages to be paid to the driver and the assistant; the cost of fuel, maintenance and repairs, and the like; the cost of insurance and other relevant payments; the costs incurred en route (on the journey) such as charges for entering a market; the capital cost of the vehicle which includes the cost of bank interest and the annual depreciation; the truck may not be used only for grain marketing; it may also serve to transport agricultural inputs from Djibouti to the locations of the Amhara Region and other areas. It can also be assigned to transport industrial commodities within the region and other parts of the country. Thus, it will be difficult to distribute the various costs to those different activities. Therefore, the union has to think for the good management of the truck so as to minimize the losses and risks caused by negligence and ignorance of the work.

Handling Costs

Handling costs of agricultural commodities are unavoidable but easily overlooked in the costing of the commodity. Each time a product is handled, the cost per unit will be negligible. But an agricultural or industrial product can be handled many times before it falls on the hands of the final consumer. The sum total of all these small handling costs can be considerable in the aggregate prices of the commodity where there are relatively high labor costs. In the data collection process for this research, attempts have been made to gather

information concerning grain-handling costs of the primary cooperatives and the union. The cost for grain handling includes: the costs for laborer; costs incurred to repackage the produce in to the containers of the cooperatives from the farmers' containers.

According to the result of the survey as depicted in the Table 4.43, the handling cost of the primary cooperatives is only the cost to repackage the produce in to the container from the farmer's container. This is mainly due to the reason that all primary cooperative have no assembling sites other than the only site where the cooperative office and stores are located. They do not use truck for transportation they rather sell the commodity through bill and the winner transports it from their store.

Table 4.43 Seasonal Handling Cost in Birr of Primary Cooperatives 2002/03 – 2006/07

Name of primary cooperative	Rate of repackage (Birr/qtl)	2002/03	2003/04	2004/05	2005/06	2006/07
Merawi	4.60	4760	4,943	12589	9012	3462
wotetabay	1.20		1,153	1569	2902	2606
Abchikli	0.60	1665	1,189	1377	1344	865
lalibela	0.50	441	562	2034	2214	1285
Meshenti	1.00	267	470	1181	1959	897
Kinbaba	4.50			2928	1676	1141
Debremewi	4.00	664	1,615	6182	1570	1802
Adethana	1.00		536	800	130	312
Woncher	3.50		1,208			315
Kore	3.50		307	3270	316	
Average handling costs	2.44	780	1,198	3193	2112	1268

Source: Survey results

The repackaging cost per quintal is varied from cooperative to cooperative. Cooperatives that are relatively nearer to Bahir Dar, Yilmanadenssa and Goncha Kolela woreda are paying high cost for repackaging where as the areas that are far from the town centers and main roads are paying lesser cost for repackaging.

Capital Costs

The main capital costs of the cooperatives under study found to include the cost of warehouse and truck, costs for other buildings for construction and maintenance; depreciation costs for buildings excluding storages. The costs have been incurred for the last five years in each

cooperative are treated as a raw data for analysis. As shown in the Table 4.44, the minimum capital cost is found to be 356 Birr for Kore primary cooperative and the maximum is 168,316.92 for Merawi cooperative society. As observed in the field, the Kore cooperative seems to withdraw from grain marketing. Its purchasing and selling performance is at a slowdown trend. This is mainly due to the fear of competition with private traders and discontinuation of the union in grain purchasing. There should be sufficient training for cooperative management bodies and employess on grain marketing management and handling of competition in the free market economy.

Table 4.44 The capital Costs of grain marketing by primary cooperatives

List of primary cooperative	*Cost of warehouse & truck*		*Capital costs for other buildings*		*Depreciation other than storages*		*Total costs*	*percent share*
Merawi			168,317	(100.00)			168,317	(47.7)
wotetabay			1,600	(75.20)	527	(24.80)	2,127	(0.6)
Abchikli			1,500	(2.60)	56,577	(97.40)	58,077	(16.4)
lalibela					97,972	(100.00)	97,972	(27.7)
Meshtenti					2,455	(100.00)	2,455	(0.7)
Kinbaba			5,783	(53.30)	5,067	(46.70)	10,850	(3.1)
Debremewi			4,300	(48.90)	4,492	(51.10)	8,792	(2.5)
Adethana	290	(21.60)	434	(32.30)	620	(46.10)	1,343	(0.4)
Woncher	200	(7.20)	1,704	(61.00)	888	(31.80)	2,792	(0.8)
Kore			356	(100.00)			356	(0.1)
Total							353,081	(100)
Average cost	49	(0.14)	18399	(52.11)	16,859.80	(47.75)	35308	

Source: Survey result

The cost for repackaging the grain per quintal ranges from 50 cents to birr 4.6 per quintal in Delamo Lalibela and Merawi primary cooperative respectively. The price of repackaging per quintal is getting higher in those Townships than rural Kebeles. This may be related with the scarcity of labor due to a better chance of getting wage employment. The annual marketing cost also varies for the reason that some cooperatives are highly engaged in marketing activities while the others seem to stop the function for different reasons.

Table 4.45 The annual marketing costs of primary cooperatives

List of primary cooperative	Repackage costs (Birr/qtl)	2002/03	2003/04	2004/05	2005/06	2006/07
Merawi	4.6	206,220	206,404	214,050	210,472	204,923
wotetabay	1.2	18,323	19,476	19,892	21,225	20,929
Abchikli	0.6	188,240	187,764	187,952	187,919	187,440
lalibela	0.5	107,874	107,995	109,467	109,647	108,718
Meshenti	1	12,787	12,990	13,701	14,479	13,416
Kinbaba	4.5	15,179	15,179	18,106	16,855	16,320
Debremewi	4	12,351	13,302	17,869	13,257	13,489
Adethana	1	8,737	9,273	9,537	8,867	9,049
Woncher	3.5	7,685	8,892	7,685	7,685	8,000
Kore	3.5	5,907	6,214	9,177	6,223	5,907
Average cost	2.44	58330	58749	60744	59663	58819

Source: Survey Results

Marketing Margin

This evaluation research has tried to see the benefits the farmers get from the marketing of their crops. The analysis focuses on maize crop representing cereals, beans for pulses and rapeseeds for oilseeds, to the marketing margin of the grain marketing system. The computation is made based on the primary data collected from households and cooperatives and also government statistics.[1] It uses the selling price of farmers for maize, beans, and rapeseeds as shown in the table, the wholesale selling prices of the primary cooperatives and the union as indicated in the table and the average retail price obtained from the local market

Table 4.46 Selling price of maize, beans and rapeseeds within the market chain

Type of grain	Farmers' Selling price (a)	Cooperatives' selling price (b)	Unions' Selling price (c)	Consumers' purchasing price (d)
		2003/04		
Maize	107.00	111.00	118.00	144.00
Beans	189.00	199.00	218.00	242.00
Rapeseeds	177.00	245.00	252.00	267.00
		2004/05		
Maize	116.88	118.87	134.89	140.92
Beans	196.58	199.31	218.00	233.85
Rapeseeds	194.93	239.08	256.10	260.00

Source: Survey result

[1] Bureau of Trade and Industry of the Amhara Region prepared for annual retail prices of grain in the region. Selecting the retail prices of the particular crops in Bahir Dar Market for the years 2003/04 and 2005/06 the formulas applied

According to result depicted in (Table 4.46), the farmers producing rapeseeds and beans are getting better benefit than maize producers. Primary cooperatives are less benefited than the union from the marketing margin. The benefits of the farmers are increasing in 2004/05 as compared to the preceding year. The union has also got a better benefit in the stated year where as the primary cooperatives have got too much reduced benefit in 2004/05 but enjoyed drastic benefit from marketing of rape seeds in both years.the retail margin could much better for the fact that traders of both wholesellers and retailers are price makers in the local markets. The understanding gained from the discussions held with the management committee members of each cooperatives during the survey, the union and the primary cooperatives mostly sale the marketable grain for bid winners who are usually traders. Thus traders are active actors in the local markets

Table 4.47 Percent distribution of Grain marketing margin for selected crops in the years 2003/04 & 2004/05

Type of grain	Return for farmers	Share of primary cooperatives	Share of the union	Retail Margin*	Total Margin
		2003/04			
Maize	74.31	2.78	4.86	18.06	25.69
Beans	78.1	4.13	7.85	9.92	21.9
Rapeseeds	66.29	25.47	2.62	5.62	33.71
		2004/05			
Maize	82.94	1.41	11.37	4.28	17.06
Beans	84.06	1.17	7.99	6.78	15.94
Rapeseeds	74.97	16.98	6.55	1.5	25.03

Source: Survey Results * the share of traders

a. Farmer's benefit = a/dx100 **b. Coop benefit = (b-a)/dx100** **c. Union benefit =(c-b)/dx100**
d. Retail margin = (d-c)/dx100 **e.Total margin = (d-a)/dx100**

Price Fluctuation

The household survey for this study revealed that almost 96 per cent of the rural households or smallholder farmers recognize the price fluctuation over the change of time in a production season Table 4.48. There is significant difference of prices for a particular crop among the local markets. Better prices are paid for farmers who sell their crop in those markets that are nearer to major towns of the *woredas*.

Table 4.48 Changes in grain prices over time in the survey area

Woreda name	Changes in prices over time		Total
	Yes	No	
Bahirdar	19		18
Goncha Kolela	8	1	9
Mecha	43	1	44
North Achefer	23	2	25
South Achefer	14		14
Yilmana Denssa	27	2	29
Total	134	6	140
%	95.7	4.3	100.0

Source: Survey results

The reasons for the fluctuation of the market prices of grain are different but the most important ones as described by the farmers in their responses, Table 4.49, are the oversupply of grain immediately after harvest season (37.1 per cent), reduced market supply after glut going down particularly in May, June and the following rainy season (26.4 per cent), the ever-increasing cost of farm inputs has its own impact on the price of marketed grain in the local market (9.3 per cent of the responses).

Table 4.49 Reasons given by farmers for price changes over time

	Type of problem	Count	Percent
1	Over supply in harvest season	52	37.1
2	Reduced market supply	37	26.4
3	Cost of farm inputs increases over time	13	9.3
4	Other reasons	14	10.0
5	No response	24	17.1
	Total	**140**	**100.0**

Source: Survey results

The farmers seem reluctant to supply their grain, speculating a better price mainly in the rainy season when certain improvement in the price of crops is expected. The proportion of grain marketed in the last harvesting season was 35.7 per cent as shown in table 64 As per the result, above 90 per cent of oil crops produced have been marketed, where as those crops utilized in staple food in the local households have been marketed in a lesser proportion out of the total production.

Table 4.50 The percent of grain sold by type of crop grown in 2006/07

Type of Crop Grown By Households	Per cent of Farmers producing the crop	Per cent of farmers selling the grain vs. number of producers	Per cent of grain sold Vs produced
Maize	99.3	76.3	42.0
Teff	76.4	59.8	29.2
Beans	31.4	61.4	45.9
Niger Seed	15.7	100	95.5
Rapeseeds	10.0	107.1	94.5
Dagussa	65.0	28.6	11.8
Barely	40.0	35.7	18.4
Guaya	27.1	60.5	37.1
Wheat	13.6	21.0	15.5
Linseed	2.9	100	100
Per cent of Grain Sold			**35.7**

Source: Survey results

Price fluctuation in the local grain market is a common problem for smallholders as displayed in the Table 4.51, it seems more of a burden for those who produce marketable surplus and deliver the same to the market. Transportation problem is more difficult for small producers than those produce more and affected by price fluctuation (50 per cent). Where as more than 45 per cent of responses from those who produce 30 and above quintals of grain responded that the problem of poor price to sell is their leading problem for marketing.

Table 4.51 Total production of grains in quintals by type of problem of selling products

Total production of grains in quintals	problem of selling products					
	Quality	Transportation	Poor price	Competition	Storage	Others
Below 10		50.00				50.00
10 - 19	4.55	9.09	63.64	4.55	4.55	13.64
20 - 29	3.70	22.22	37.04			37.04
30 - 39	6.67	23.33	46.67	3.33		20.00
40 - 49	17.65	17.65	58.82			5.88
50 and above		27.27	54.55			18.18
Total	**6.42**	**20.18**	**49.54**	**1.83**	**0.92**	**21.10**

Source: Survey results

Actually, price fluctuation is not the problem of the cooperatives member farmers only; it is a common phenomenon to all agricultural producers in the Amhara Region too. The data computed from the government statistics as shown in the table 4.52 for cereals and pulses are somewhat higher.

Table 4.52 The price index of cereals and pulses for the year 2006/07, Amhara Region

Month of the Year	Intra year price induce for Cereals 2006/07			Intra year price induce for Pulses 2006/07		
	S	S - Š	(S - Š)^2	S	S - Š	(S - Š)^2
Jul-06	202.60	-13.35	178.22	143.60	-19.74	389.73
Aug-06	204.90	-11.05	122.10	145.80	-17.54	307.71
Sep-06	210.50	-5.45	29.70	150.60	-12.74	162.35
Oct-06	213.80	-2.15	4.62	151.10	-12.24	149.86
Nov-06	213.00	-2.95	8.70	153.40	-9.94	98.84
Dec-06	216.00	0.05	0.00	154.70	-8.64	74.68
Jan-07	217.60	1.65	2.72	159.00	-4.34	18.85
Feb-07	219.90	3.95	15.60	175.90	12.56	157.71
Mar-07	222.40	6.45	41.60	172.60	9.26	85.72
Apr-07	220.20	4.25	18.06	181.10	17.76	315.36
May-07	223.30	7.35	54.02	186.80	23.46	550.29
Jun-07	227.20	11.25	126.56	185.50	22.16	490.99
Total	2591.40		601.93	1960.10		2802.09

Source: Computed from statistical bulletin of bureau of trade and industry of the ANRS *Note* (Base Period 3Ist December 2006)

The Formula for construction of Price index or price relatives

$\underline{s}$ =Pt/Po X 100 = index of the month

$P_{t=}$ price at the time of t

P_o = price at the base period

The intra year price variation has been computed using the known statistical method, the coefficient of variation (CV) that can be calculated by the following formula.

$$CV = \frac{\tilde{O}}{\check{S}}$$

$$\sigma = \frac{\Sigma(S - \check{S})^2}{n - 1} \quad \text{and} \quad \check{S} = \frac{\Sigma\, S\, i}{n}$$

The Standard deviation (σ) for the regional price fluctuation on cereals and pulses calculated

$$\sigma = 7.3974$$

$$CV = \frac{7.3974}{100} X\ 100 = \underline{\underline{7.40 \text{ per cent}}}$$

Thus, the coefficient of variation is also found to be 7.3874 or 7.40 per cent of price variation has been seen in the Amhara Region in 2006/2007 on cereal crops. It is a very high variation or per cent for pulses which is almost equal to 16 per cent taking December as a base period for it is a peak season on harvesting and threshing of the Meher crops. The price fluctuation of Bahir Dar market as shown in Figure 14 is very high. It reaches at the highest peak during October and move downward to its minimum in the period between March and April. This period is the time when local markets are becoming well supplied with marketed grain flowing from all direction of rural villages towards the local markets.

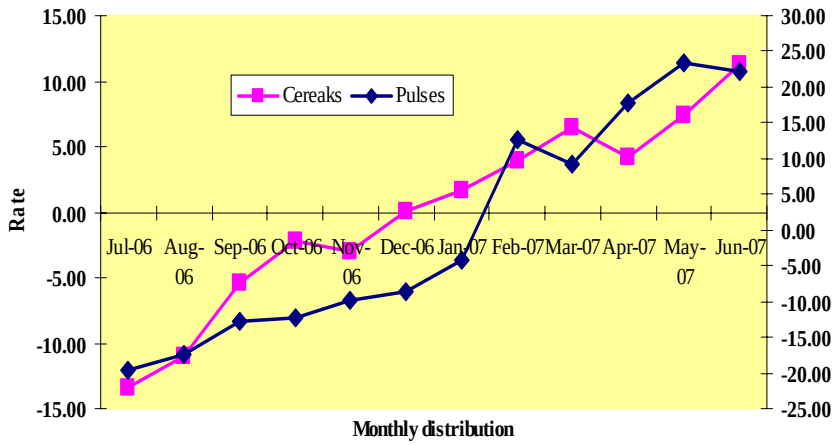


Figure 11. Intra Year Price Fluctuation of Cereals and Pulses (2006/07) Amhara Region

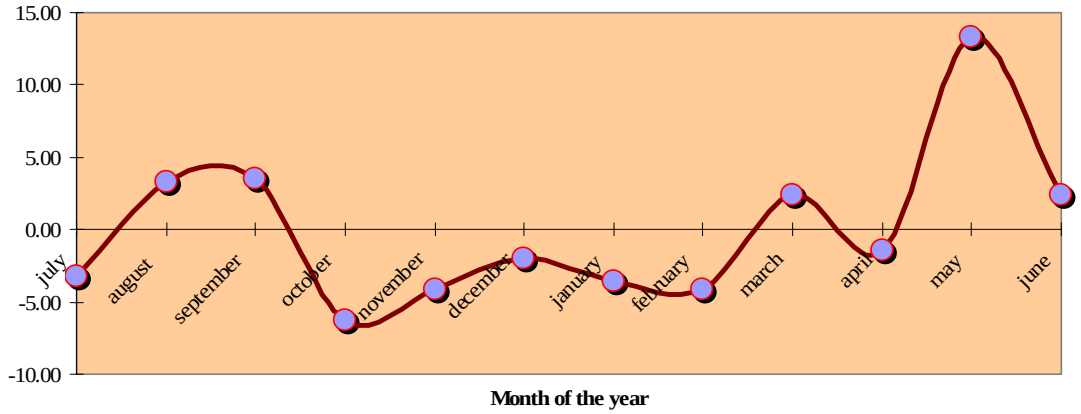


Figure 12 The price fluctuation for in Bahir Dar market for the year 2006/2007
Source: Computed from annual statistical bulletin, Bureau trade and industry ANRS Note: - base period December 31st

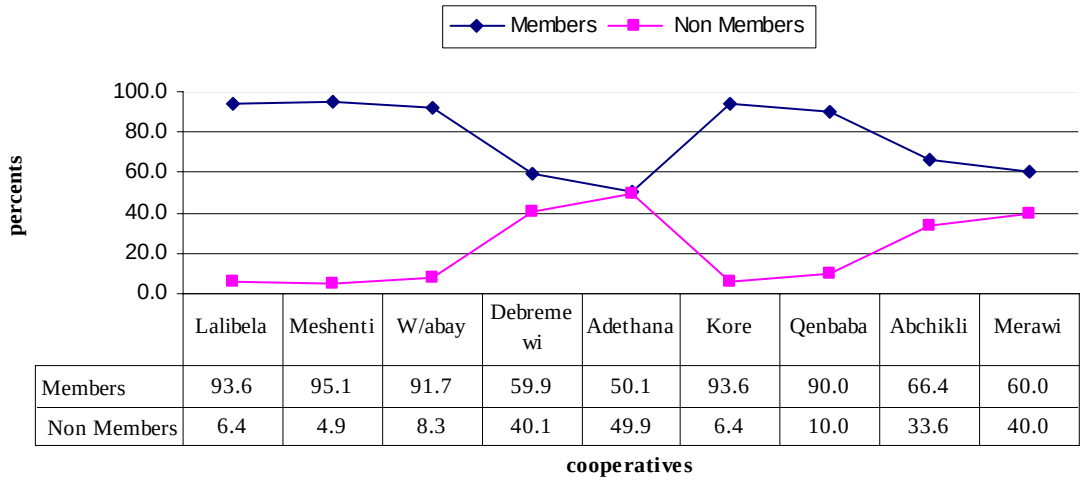
The desirable empowerment of farmers through the organizational marketing system of the primary and secondary cooperative is yet at its infancy stage. Such a situation is exposing the farmer for the continuing price fluctuation and this affect the expectation of the farmer from the outputs of his smallholding cultivation. As to the data depicted in table 4.53, the volume of grain purchased from the farmer by the affiliated cooperatives has been only 30.92 per cent of the total marketed crops in the last cropping season. Wholesalers, retailers, other agent grain collectors and direct consumers could purchase their share directly from the farmers.

Table 4.53 The share of primary cooperatives in grain purchases 2006/07

Grain purchaser	Number of sellers (Count)	Per cent	Volume of grain purchased (In quintals count)	Per cent
Consumers	32	22.86	180.7	11.39
Retailers	61	43.57	498.66	31.44
Whole seller	47	33.57	416.24	26.24
Cooperative	71	50.71	490.4	30.92
Total			1586	

Source: Survey results

The union and primary cooperatives purchase grain both from their members and non-members. The aim is to benefit the members and to attract the non-members to join the cooperative marketing system. According to the results of the survey as display in figure 15**,** the share of non-members in the grain marketing with primary cooperatives has got a significant proportion. Particularly, in few woredas like Adet Hana (49.9 per cent), Debremewi (40.2 per cent) and in abchikli 33.6per cent of the purchases come from the non-members. Non-members are benefiting from the additional prices cooperatives pay above the prevailing market price paid by traders, for sellers while members enjoy from the additional price and the dividends too.



	Lalibela	Meshenti	W/abay	Debremewi	Adethana	Kore	Qenbaba	Abchikli	Merawi
Members	93.6	95.1	91.7	59.9	50.1	93.6	90.0	66.4	60.0
Non Members	6.4	4.9	8.3	40.1	49.9	6.4	10.0	33.6	40.0

Figure 13 Composition of grain sellers to Primary Cooperatives

Market Information

Market information is a strong instrument to decide the price of commodities that are already marketed or to be marketed. It is important to develop expectations of sellers and buyers. At present the value of market information has got proper attention and big companies in the world spend millions of dollars to obtain information to estimate current supply and demand and future supply and demand. Expected supply and expected demand are used to determine prices of commodities. Researchers in the area of marketing believed that an efficient market is a market that incorporates all available information when determining price.

The rural households, particularly in the remote areas, are far away from communication net works and lack a proper access for formal channel of information and communication. The survey result shows that nearly 28 per cent of the respondents have no access for market information. Almost 72 per cent of the respondents have access for market information. The major information providers about market prices of grain, as shown in the (figure 16) are traders (nearly 42 per cent), any one returning from market (about 23 per cent), friend, neighbors and others like radio, development agents and representatives of primary cooperatives constitute the rest of the responses of sample farmers.

Traders are active information providers for farmers coming from rural villages holding their marketed grain to the local market. Traders and their agents, particularly at the peak of harvesting seasons, establish their assembling sites in remote locations and purchase the available marketed grain with the price they make. They earn better profit than cooperatives since they acquire information relevant to the grain market before anyone else in the market. They are the first to provide market information to the farmers and consumers.

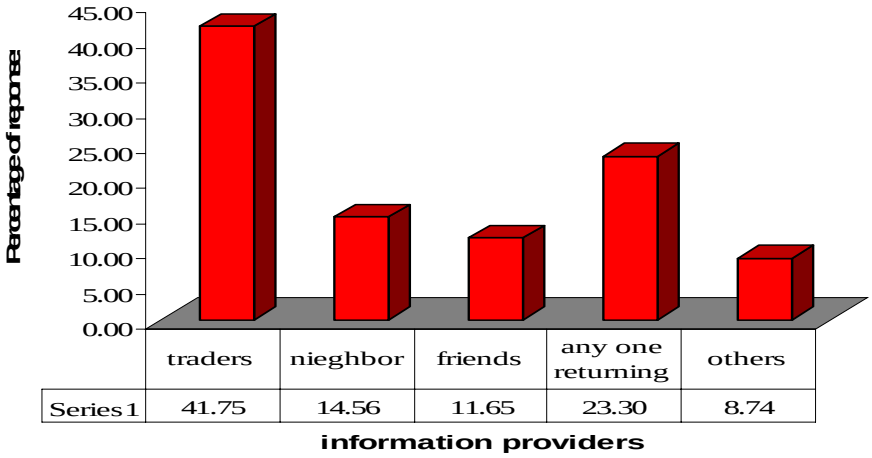


Figure 14 Sources of Market Information for Farmer

The effect of market information

Market information is a basic instrument for marketing particularly to have a power for price decision over the marketable grain. The survey revealed that the three quarter of price making power in the local market is in the hands traders. Nearly 11 per cent of the respondents said that the salers or primary producers of the marketed grain are price makers and only 15 per cent of the responses recognize the bargaining between the seller and purchasers.

Table 4.54 The market price makers in rural markets by educational status of farmers

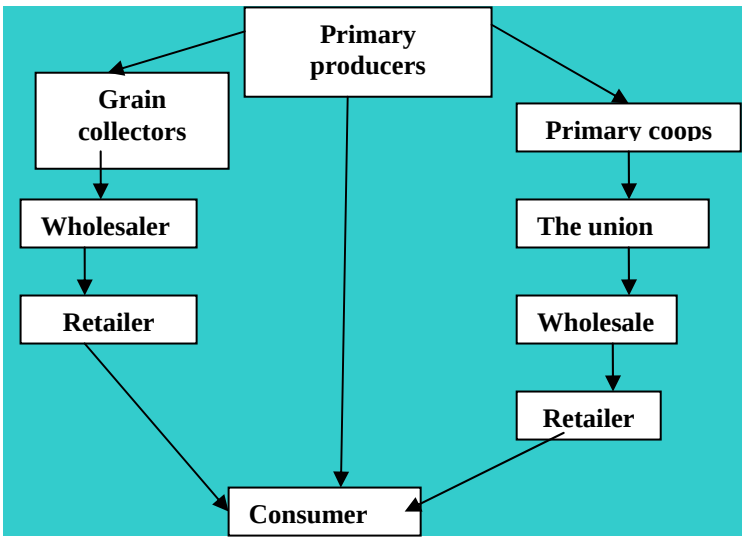
Price Makers	Educational Status of Respondents				Total
	Illiterate	Able to Read & Write	Primary	Secondary & Above	
The Seller	10.4	8.6	13.5		10.8
The Purchaser	72.9	74.3	73.1	75.0	73.4
Government Firms	2.1				0.7
Bargaining	14.6	17.1	13.5	25.0	15.1

Source: survey results

The impact of such price making power resulted in the losses of the primary cooperatives for the reason that farmers prefer the traders to sale the marketable grain. The traders, through giving the market information and making the price of the grain, become the purchaser of the marketed grain. If necessary the trader does escalate the price to compete the cooperative

purchasers who came to the market with price decided by cooperative purchasing committee. The trader may gather so much grain until the cooperative revises its predetermined price. The local traders or grain collectors are more active and conscious than the cooperatives. They create a workable atmosphere or harmonized relations with the farmers through favoring them with different benefits such as granting interest free loans to cover immediate money need, which is unthinkable from the cooperative since it is a formal and legal institution. They are also purchasers of the cooperative marketed grain, being a bidder competing with the union and other organization for the bill posted by the primary cooperatives. Thus, traders are purchasers of grain from the primary producers, the cooperatives and the union too. The existing marketing chain of crops in the survey area looks like the following flow chart.

The existing grain marketing chain in the survey area is resemble to the diagram shown below



The union and its affiliated should strengthen themselves and penetrate the chain to hold the upper hand in the grain marketing and to empower the capacity of producers in grain price making

Effect of the Market Distance

The market distance for rural households is one of the major problems of selling and buying of commodities and it also affects the pricing of grain due to lack of timely marketing

information, poor transport facilities and the burden of transaction costs of grain marketing. At present, more than 90 per cent of rural households own radio. This is a good potential available in rural areas to disseminate market information through radio broadcast. The rural people will benefit from periodic dissemination of grain prices particularly in the pick harvesting season and enable them to take the price decision power and timing of grain marketing. However as discussed earlier in this chapter the farmers gather market information from traders and other neighbors who return from the market. Most of the time, traders are price makers and gatherers of the larger volume of marketed grain.

The household survey result reveals that more than 41 per cent of the rural households should travel/walk for more than 2 hours for a single trip from home to reach the nearest market place Table 4.55. The problem is more pronounced in *Mecha Woreda* (54.6 per cent), south *Achefer* (50 per cent) and in *Yilmanadenssa woreda* (44.8 per cent) of the rural population has to travel the stated distance for market and other related services. This is one indicator for the need to establish grain-assembling sites in remote rural villages by the union and its affiliates in order to mitigate the problems of the member farmers and to accomplish the mission of the cooperative societies

Table 4.55 The walking hours require reaching the nearest local market by survey woreda

Walking hours	Per cent of responses by Survey woreda						Total
	Bahirdar	Goncha Kolela	Mecha	N.Achefer	S.Achefer	Yilmana Denssa	
Below 1hr	42.11	22.22	4.55	33.33	21.43	34.48	23.74
1:00 - 1:30	31.58	44.44	38.64	41.67	21.43	17.24	32.37
1:31 - 1:59	5.26	0	2.27	0	7.14	3.45	2.88
2:00 - 2:30	21.05	22.22	29.55	12.5	28.57	20.69	23.02
2:31 - 2:59			2.27		7.14		1.44
3:00 and + hrs		11.11	22.73	12.5	14.29	24.14	16.55
Above 2 hours	**21.05**	**33.33**	**54.55**	**25**	**50**	**44.83**	**41.01**

Source: Survey Results

Members views on certain activities of cooperatives

Farmers' views on marketing practices of cooperatives were intentionally asked during the field survey to have certain understanding about the concern of members on their cooperative society. Thus the obtained result as depicted in the Table 4.56 the great majority in all level of education agree that cooperatives have good pricing policy for grain marketing representing 72.7 percent of the total respondents. Where as in relation to the capacity of cooperatives to disseminate market information for members, considerable size of individual members were disagree with the decision view forwarded to them (38.4 percent). Particularly 75 percent the farmers who attained secondary level of education were disagree with the decision view. The major problem was observed regarding the coordination capacity of cooperatives to solve marketing problems occurring during the harvesting seasons. Totally 50.4 percent of respondents disagree with the forwarded decision view. The view in relation to the educational attainment of farmers shows that all except those who attained primary education disagree with suggested idea.

Table 4.56 The views of member farmers on marketing activities of cooperatives

Issues Forwarded For Decision	Level of View of Farmers	Educational Status of Farmers				Total
		Illiterate	Able to Read and Write	Primary	Secondary and Above	
The Cooperative has a Good Pricing Policy for Grain Marketing	Agree	66.67	71.43	80.77	50.00	72.66
	Disagree	29.17	25.71	19.23	50.00	25.18
	Not Sure	4.17	2.86	0.00	0.00	2.16
The Cooperative has a Good Capacity to Disseminate Market Information	Agree	45.83	62.86	66.67	25.00	57.25
	Disagree	45.83	34.29	31.37	75.00	38.41
	Not Sure	8.33	2.86	1.96	0.00	4.35
The Cooperative has a Coordination Capacity to Solve Marketing Problems	Agree	31.25	42.86	57.69	50.00	44.60
	Disagree	64.58	51.43	36.54	50.00	50.36
	Not Sure	4.17	5.71	5.77	0.00	5.04

Source: Ssurvey results

Profit and Loss

The primary cooperatives could obtain profits from the marketing of grain. Table 4.57 shows that among all the cooperatives covered by this survey, 50 per cent could get certain amount

of profit from the grain marketing, whereas the others were not in a position to get profit from the marketing because they were not working in the area of grain marketing. Almost all cooperatives obtain a minimum profit in the year 2003/04 and it has significantly increased every year since then.

Table 4.57 The gross profits of primary cooperatives since 2003

Primary Cooperative	YEAR				
	2003/04	2004/05	2005/06	2006/07	2007/08
Merawi	6449	7482	124790	50226	25435
Wotetabay		14667	55172	32923	113609
Abchikli	50982	23447	135637	35828	48238
Kinbaba			17327	21417	30522
Debremewi	16632	48282	33809	19103	26406
Woncher		12075			9450
Adethana		50658	22290	15296	20275
Kore		2412	14385	4435	
Lalibela	8867	8000	192626	56197	118280
Mehenti	3411	8388	75509	86975	278211

Source: Survey results

The net profit obtained by the cooperative in the last five years is almost discouraging for the reason that the majority of the primary cooperatives were at loss from their grain marketing performance. The result shown in the table 4.58 disclosed that few cooperatives like *Debremewi, lalibela,* and *Meshenti* are better to get encouraging profit from the grain marketing. The rest are at risk and the loss is huge as compared to the existing cooperative economy. The union should strengthen itself and assist the primary cooperatives instead of stopping the grain marketing work.

Table 4.58 Net profit and loss of primary cooperatives since 2003/04

Primary Cooperative	Year									
	2003/04		2004/05		2005/06		2006/07		2007/08	
Merawi	6449	(225969)	7482	(224937)	124790	(107628)	50226	(182193)	25435	(206983)
Wotetabay		(26552)	14667	(11885)	**55172**	**28620**	**32923**	**6371**	**113609**	**87057**
Abchikli	50982	(140702)	23447	(168236)	135637	(56046)	35828	(155855)	48238	(143446)
Kinbaba		(113617)		(113617)	17327	(96290)	21417	(92200)	30522	(83094)
Debremewi	16632	(448)	**48282**	**31202**	**33809**	**16729**	**19103**	**2023**	**26406**	**9326**
Woncher		(20924)	12075	(8849)		(20924)		(20924)	9450	(11474)
Adethana		(22989)	**50658**	**27669**	22290	(699)	15296	(7692)	20275	(2713)
Kore		(10514)	2412	(8102)	**14385**	**3871**	4435	(6080)		(10514)
lalibela	8867	(340)	8000	(1208)	**192626**	**183419**	**56197**	**46989**	**118280**	**109073**
Mehenti	3411	(6388)	8388	(1412)	**75509**	**65709**	**86975**	**77175**	**278211**	**268411**

Source: Survey results

4.2.4. Market Potentials and Opportunities of the Union

The union, since its establishment has got two major functions: mainly grain marketing and agricultural input supply. It is now concentrating on the input supply and has withdrawn from grain marketing starting from 2006/07. The main reason forwarded for the withdrawal is the VAT registration, which is said to affect the activities of the union and deter the marketing of grain from primary cooperatives. The union managing body emphasizes the problem, i.e. was unable to compete with the traders who don't register for VAT, and even those who registered are cheating through different mechanisms. The traders by now are able to control the market through kicking out the union and the primary cooperatives from grain markets.

However the available regional data and to some extent the outputs of the field data collected for this research disclosed that the majority of the regional and local markets are unsatisfied in staple food grain supply and there is meaningful price differences among marketed grain. The existing trends of food grain supply and production (2005) indicates that there should be additional grain to cover the deficit. The self-sufficiency rate usually goes up and down every year, which may depend on the productivity of agriculture as well as the weather conditions. For instance it was 48.4 per cent at 2.25 per capita food requirement that the region able to cover the regional food demand in 2003. This figure could improve in 2005 reaching to 73.6 per cent at similar rate of per capita. Thus food grain at local market level has very high demand.

Table 4.59 Trends of food supply and production in Amhara region

report years	Per capita availability	Self-sufficiency ratio (per cent)		Aid dependency
		2.04 per capita	2.25 per capita	
2001	1.76	77.7	70.4	9.8
2002	1.68	78.2	70.9	5
2003	1.23	53.4	48.4	11.7
2004	1.64	74.8	67.8	7
2005	1.7	81.1	73.6	2.9

Source: Bureau of Finance and Economic Development, Development Indicators of the Amhara Region
Note: - (Quintal in Wheat Equivalent)

The available grain prices in the local markets of the region shown in Table 4.60 that certain grain produced in the survey area could have much better prices in the eastern and southern parts of the region. As far as proper transportation services are available the grain marketing activities of the union can be expanded to cover those deficit locations by itself or other marketing agencies working jointly with the union and affiliates.

Table 4.60 Annual prices and price indexes/quintal for selected crops

Year	Bahir Dar Market						Gonder						Debremarkos					
	Annual prices			Annual price index			Annual prices			Annual price index			Annual prices			Annual price index		
	Teff	Maize	Beans	Teff	Maize	Beans	Teff	Maize	Beans	Teff	Maize	Beans	Teff	Maize	Beans	Teff	Maize	Beans
2001	163	60	103	100	100	100	165	75	127	100	100	100	114	58	91	100	100	100
2002	205	121	177	126	201	172	211	134	192	128	178	152	162	129	165	142	223	180
2003	242	142	214	149	235	208	241	152	233	147	202	184	205	205	205	180	355	225
2004	260	140	235	160	232	228	257	164	238	156	217	188	225	131	189	198	226	207
2006	281	131	262	173	217	255	283	162	258	172	215	204	250	150	208	173	391	227

Source Computed from regional figures available in BoTI (Base period 2001/02

If the union uses the transportation tariffs of the Tikur Abay fright transport that request Birr 0.035 per quintals per kilometers the market will give encouraging returns for the union. The other marketing opportunity and potentials of the union may be the market relations with the existing agro industries available in Bahir Dar city and even to the extent of Addis Ababa and other big cities. The union has got a limited experience of sending oilseeds to *Mojo Oil miller* but unable to continue further for unknown reasons. The union did not made an investigation on the reasons rather they simply expect the quality of the grain supplied may not met the demand of the industry.

The Guder Agro industry is one of the most important establishments that open market potential for the Union grain marketing. The industry is a privately established manufacturing complex established in Bahir Dar city. It engaged in the production of Biscuits, bread flour proteins and starches. The major inputs are wheat, maize and Soybeans with annual intake capacity of 200000, 130000 and 25000 quintals respectively. The deputy manager of the

industry disclosed that the union is the best interest of the industry to purchase grain particularly maize crop which sufficiently available in the area. Marketing relation was created between the union and the industry through supplying 3000 quintals in 2005/06 and 2500 in 2006/07 with better price than the prevailing market. The marketing relation by now is stopped due to VAT registration of the union. The deputy manager use to say that as far as the union is a VAT registered the industry shall give priority for marketing relation. The industry is also interested for the quality of grain supplied by the union and affiliated cooperatives for which it is ready to pay with additional 15 per cent above the prevailing market prices.

4.2.5. Problems of the Union

The nature of the problem is very wide and it can be categorized in to the following major groups

1. **Organizational and structural problems**

The union, though it has the same missions and objectives as the primary cooperatives, is expected to perform its functions by far better and more organized manner to meet the interests of the members and the general community. Until now the union has no a better organizational and structural setup than the primary cooperatives. It has not got any formal personnel administration directives; no procurement manual; it suffers from a shortage of capital; it lacks a sufficient and standardized warehouse; it doesn't have suppliers for household commodity marketing; there is no enough manpower to undertake the market assessment and to disseminate appropriate information for the cooperatives and other beneficiaries. There is also a limitation to identify the major problem areas that strangulate the performance of the union.

2. **Policy related problems**

The informants largely emphasize the interference of government bodies in the performance of the regular function of the union and affiliated cooperatives. The government bodies usually enforce the union to run the supply of farm inputs to cover the wide area of the region; where as the capacity of the union is suffering from different limitations. They also mentioned the VAT registration as one major problem that has made the union to stop its grain marketing function mainly because the union failed to compete with those non VAT registered private trading firms

3. **Problems linked with Competitors**

The union, as per the views of informants, is becoming unable to withstand the skills and systems of private firms which are either free or cheat the payment of VAT and are active in the handling of farmers through different incentives which are difficult for the union to do the same since it is a formal institution.

4. **Problems of Infrastructure**

The union suffers a lot from lack of transport and communication services to address the cooperatives through out the year and to strengthen the grain marketing process. It is difficult to supply periodic market information through telephone communication, particularly in the rainy season, the road communication is unthinkable during which the distribution of farm inputs is a must to meet the immediate demand of fertilizer and improved seeds. The union has no its own transportation vehicle to facilitate better marketing services through out the year covering all activity areas.

Problems of the primary cooperatives

The problems of the primary cooperatives and the union as discussed by the management committee include the following. The problems are summarized based on major category and

the underlining effect of the problem on the activities and accomplishments in the area of grain marketing and other related activities

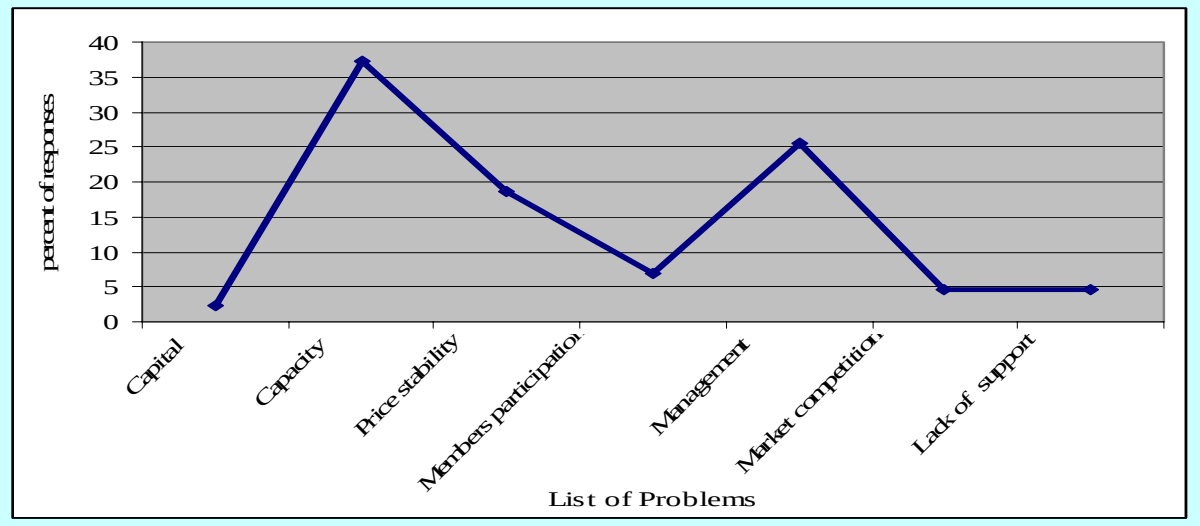


Figure 15 Summary of the problems of primary cooperatives by major category

- **Capital: -** Shortage of capital to purchase grain timely at prevailing price is one major problem affecting the cooperatives in the grain marketing. This makes them to give up the marketing chance for traders through which they attain the upper hand to decide on grain price

- **Capacity: -** the problems related with capacity include; Lack of capacity to under take timely market assessment; Lack of training for the management and workers; Delay on supply of farm inputs to member farmers; Weakness of the union to make periodic reports for members that has a contribution for members confidence over the cooperatives; Shortage of sufficient and quality warehouses; Failure to compete for the grain market with other market actors; Poor performance of the management and knowledge of execution of functions.

- **Price related** ; - Market instability; Lack of appropriate and periodic market price assessment; Poor access for market price information from government institutions; Problem for making timely price decision; Problems of information on price decision for members and exposed them for traders exploitation

- **Members related: -** Low level of understanding about the cooperative societies; which brought about the Prefer traders for grain marketing than the cooperatives

- **Management related; -** the biggest of all problem of the cooperative societies is related with the management system that includes **;** the weakness of the management committee members to attend the meetings of cooperatives; Increased weakness of the union to perform the marketing functions; Limitations related with capacity, performance, and absentness in meetings Lack of confidence to purchase grain from farmers on the prevailing market price Shortage of required manpower Discouraging salary payment Interference from the cooperative agency on the normal functions of the cooperatives

- **Competition: -** Strong marketing competition among market actors and failure to cop up the competition certain cooperatives like Kore and even the union give up the grain marketing for their competitors.

- **Lack of Sport: -** Delay on decision to legal issues handled in the court which indirectly encouraging illegal acts over the cooperative societies. Corruptors and those who commit theft are not yet verdict in the court system.

5. Conclusions and Recommendations

5.1. Conclusions

The research initially interested to deal with a grain marketing assessment referring the marketing activities of cooperatives to meet the demands of producers and consumers. Specifically the research has concentrated in three objectives including: evaluation of the efficiency of the marketing performance of cooperatives; evaluation of the market share of cooperatives in the regional grain marketing activities; and finally the identification of the grain marketing problems of cooperatives and their members in the research area.

The grain marketing efficiency which can be categorized in to technical (operational) and pricing efficiency has been investigated in detail referring the Merkeb Multipurpose Farmers Cooperatives Union and the affiliated primary cooperatives. The research utilized the household level information, the marketing data available at primary and union level, and other regional and national government statistics.

The Survey method was applied both primary and secondary data collection processes to gather the required information from the research area and other sources at national level. Simple Random Samling was used to select the members of cooperative societies for primary data collection. Different data collection formats were developed for individual member farmer, primary cooperatives and the union. The survey totally covered six woredas 11

primary cooperatives 33 rural kebeles and 140 member farmers for the data collection. The data management and entry was carefully done by the researcher hiself. The SPSS soft were applied for the data entry and porsessing, EXCEL and Microsoft word were the very important computer software utilized for the execution of the research.

The grain marketing either by private trading basis or by the cooperative system has gone through terrible conditions due to the government policies. By now, the policy changes made since 1991, pave the way for free market. Any interested body either privately or in a group form can involve in the area of grain marketing without restrictions.

The over all results of this research indicate that there is a good launch of the cooperative system especially at primary level dealing with the grain marketing activities. The technical efficiency of cooperatives for the purpose of this research includes the management of operations, the promotion of production improvement for marketable crops and their costs of production, the storage system and transportation.

The primary and the union management bodies are found free from illiteracy. The majority of them attended primary level education ranging from 1st - 8th grade. The rest have studied secondary level of education. However the management bodies should be supported through continuous training. Democratic traditions should be internalized and developed in the management system of the cooperatives so as to exercise the legal provisions to keep the principles and values of the cooperative societies. The legal provisions for office terms of elected members are not well observed particularly at primary level there are individuals stayed for so many years in the leadership areas. Dissatisfactions are occurring among individual members and hesitate to have grain marketing with the cooperatives even members are not invited to attained cooperative meetings.

In relation to the grain production, 94 percent of member households produce food grains aiming at marketing some of the product. This shows the good marketing potentials for grain trade for cooperatives. The farmland holding of the private members is significantly higher than the regional average which is 1.83 ha/hh versus 1.14 ha/hh respectively. The farm size therefore is enabling the households to produce marketable surplus. Almost all households developed the use of fertilizers and improved seeds for their grain production.

The major crops grown in the area are maize, *Teff*, *Dagussa*, barley, beans and others. Oilseeds like rapeseeds and Nigerseeds are also produced in the area by few numbers of households. The production of maize gave the highest rank to the survey area as compared to other parts of the country. Marketable surplus production of grains is a function of the level of prices, size of plots of cultivated land and the techniques of production adopted. The average cost of grain production at household level found to be Birr 5543.13 out of this 43.1 percent made for farm expenditure. The expenditure for fertilizers holds 42.7 percent of the farm expenditure.

The grain storage system is the inevitable function of the agricultural production. All households have their own traditional storage planted at the centre of the living room of the houses. Rodents, mainly rats and weevils are the major sources of the peasant households. All primary cooperatives have their own grain storage. Almost all are made of wood and mud with corrugated iron roofs and 83.3 percent of the stores have cemented floor. In terms of quality, all the visited stores are poor that cannot fulfill the minimum standards to keep the quality and quantity of the grains stored. The ventilation system for light and air entry seems difficult in many of the stores. This issue should be investigated further. It may be difficult to the grain to keep its minimum moisture contents. The union until recently has no its storage.

Transportation services and facilities are among the required components for grain marketing. The survey area, particularly rural villages have poor access for road transport. Farmers use pack animals, in some areas carts and shoulder to transport grain to market. This problem largely affects the grain marketing works of the cooperatives. Grain traders use this weak point for their benefit through accessing themselves to the farmer through creating grain assembling sites at the remote villages too. The union and the cooperatives are hardly organized in this regard

The pricing efficiency is the other aspect of the grain marketing efficiency for the cooperatives. The research result revealed that farmers sold 35.7 percent of their produce in the local market. Oilseeds, beans and maize crops are highly marketed by the producers. The cooperative societies could purchase grain from 50.7 percent of member farmers. The rest of the farmers sold their grains for traders and directly to consumers. The traders purchased 57.7 percent of the marketed grains where as cooperatives share remain to be 31 percent of the grain sold. A chi square test made by the researcher revealed that all groups of farmers at different age category inclined towards traders to sell the marketed grain. Payments of better price for grains attract farmers than membership. More than 22 percent of farmers do not consider the marketing relations with cooperatives as well useful, and more than 30 percent did not satisfy with method of marketing of the cooperatives.

The grain purchasing share of cooperatives and the union from members and nonmembers could not exceed 31 percent where as traders totally able to share about 58 percent of the marketed grain in the survey area. The share of traders is increasing due to the withdrawals of primary cooperatives and the union from grain marketing.

The market information dissemination works of cooperatives found weak as compared to the works of traders. Grain traders hold the upper hand to provide market information for farmers,

42 percent of the responses. The share of cooperatives remained below 8.74 percent of the farmers responses. This gave traders the upper hand to decide the market price of grain.

Cooperatives failed to have grain assembling markets in remote rural kebeles. They are only tried to purchase grain at woreda markets. This is difficult for rural people who are away from the main road and transportation services rather need to walk more than two hours on foot (41 percent), to reach the woreda markets. Traders are benefiting from this weakness of cooperatives and they establish grain assembling sites in the remote rural villages.

The union and its affiliates have market possibilities in the region since so many markets are under grain deficit situations. There are big industries in Bahir Dar city that can absorb the marketable grain with reasonable prices. The union can arrange agreement with other consumers' cooperatives in the Region and other parts of the country to supply marketable grain. There may be unused potential to supply grain to exports particularly pulses and oilseeds.

5.2. Recommendations

- Maize is the very important grain that should get priority for grain marketing of the cooperatives since it is the outputs of all farmers and its sensitivity for spoilage with extended storage time. The cooperatives should minimize the risks of their members through timely marketing the maize crop.
- The supply of fertilizer and improved seeds which are taken to be the functions of cooperatives should be made timely and sufficiently. this may increases the volume of production and reduces the costs of grain production
- New and/or improved storage system should be introduced among the rural societies to reduce the losses of grains by poor storages system. This may be possible through the application of community warehouse system with

affordable rents to the farmers. The union and the primary cooperatives should think around this area.

- The grain storage system of primary cooperatives should get proper attention by the union and cooperatives to keep the standard quality for the grain marketing system. The indoor and out door (court yards) of stores should be improved for better management of the marketable grain
- Cooperatives and the union should established grain assembling sites at every rural kebele to create market access for members and to improve their efficiency.
- Cooperatives should reconsider their relations with member's farmers to create more improved and encouraging marketing opportunity to gain better market share
- Further investigation in the area of input supply and utilization in relation productivity is very important. This is mainly due to the fact that farmers are strongly commenting the supply of fertilizer and improved seeds is usually delayed and lower than the required quantity.
- The importance of assembling markets is not a mater of discussion but it should be proved that the cost implication and management activities may be difficult. Thus it is recommended that any interested body can conduct a research work for this area.
- Continuous and intensive trainings on grain marketing and cooperatives management should be given for cooperative leaders at all levels and the capacity of employed workers requires the attentions of government officials and other concerned bodies.
- The union and cooperatives should assess the market potentials in the local as well as export markets to benefit more their members.
- It is by far important to introduce certain value addition works to the grain marketing such as purification of grain from dirt particles and better packing system. This may attract market and on the other hand create employment opportunities.
- Special privileges are expected from the government side for cooperatives like exemption from VAT since they are newly growing peasant institutions to act in the free market atmosphere

- Cooperatives should made some kind of arrangements with the regional mass media for market information targeting the rural population
- The union and cooperatives are expected to give priority for members' satisfaction in the marketing and cooperative management

6. References

AAU, IDR Grain Marketing and pricing in Ethiopia R.R no 28, Addis Ababa

Amdissa Teshome1 (May 2007), the Compatibility of Trade Policy with Domestic Policy Interventions in Ethiopia, Paper Presented at a Workshop on "Staple Food Trade and Market Policy Options for Promoting Development in Eastern and Southern Africa March 1-2, 2007. FAO – Rome, Italy

Amin Abdella (December 2002) Agriculture Development-Led Industrialization (ADLI) and Export -Led Growth: Compatibility Analysis. A paper Submitted to: EEA for the First International Conference on the Ethiopian Economy

Andrew W. Shepherd (1996), A Guide to Marketing Costs and How to calculate them, Marketing and Rural Finance Service Division, Food and Agricultural Organization of the United Nations, Rome

ANRS, Head of Government office, Agricultural Commodity Marketing System study Project, main report, December 2004 Bahir Dar

Asfaw Negassa (January 1998) Vertical and Spatial Integration of Grain Markets in Ethiopia: Implications for Grain Market and Food Security Policies Working Paper 9 Grain Market Research Project

Befekadu Degfe *et al.* (1990) the marketing and pricing of agricultural products, Ethiopia: Rural Development Options Siegfried pauswang, et al (eds) Newjersy

Bernard Tanguy, et al., (2006) Linking Ethiopian Smallholders to Markets: Promises and Pitfalls of Collective Action; Paper submitted for ESSP Policy Conference 2006 "Bridging, Balancing, and Scaling up: Advancing the Rural Growth Agenda in Ethiopia" 6-8 June 2006, Addis Ababa, Ethiopia

BoFED ; Development indicators of Amhara Region 2nd edition august 2004 Bahir Dar

Bromley, R, j, (1971) Markets in developing countries; a review geography, vol 56

Brune stefen (1990), "The agricultural sector; structure, performance & issues (1974 – 88)", Ethiopian rural development options, in Siegfried pauswang et al (eds) Newjersy

CSA, (2006), statistical bulletin 283, producers' prices of agricultural products at Zonal level, monthly statistical report, august

CSA, (2007), country and regional level consumer price indices for the month of August no 64

CSA, (2007), country and regional level consumers' price indices for the month of June, A. A

CSA, statistical bulletin 288, agricultural sample survey 2006/2007, September – December 2006 volume – 1 report on area and production of crops private peasant holding, Meher season Addis Ababa

David Downey, Steven p. Erickson (1987), agribusiness management second edition Bookman press Inc

David Tschirley *et al.* *(*Sept.1995) Improving Information and Performance in Grain Marketing: FSRP Working Paper 1 Addis Ababa

Debel Gemechu (Nov. 2002), Exports and Economic Growth in Ethiopia: an Empirical Investigation Paper Presented for the First International Conference on the Ethiopian Economy Ethiopian Economic Association

Decree No 4/1960 provided to the establishment of farm workers cooperatives Societies

Desalegne Rahmetu, (1987) Famine and survival strategies, a case study from north Eastern Ethiopia, IDR, A.A.U

E. Dean Baldwin, et al (Dece.1984) Southern Journal **o**f Agricultural Economics, A discriminate Analysis **o**f Grain Market Structure In Selected States of the South and Corn Belt

Edmond J. Keller, *(*2002), Ethnic Federalism, Fiscal Reform, Development and Democracy In Ethiopia Afr. j. polit. sci Vol 7 No. 1

Eleni Z. Gabre-Madhin (October 1999) Transaction Costs and Market Institutions: Grain Brokers In Ethiopia market and Structural Studies Division International Food Policy Research Institute Washington, D.C. 20006 U.S.A

Eshetu Chole; (1990), Agriculture and surplus extraction; the Ethiopian experience; rural Development options New Jersey

Federal Negarit Gazetta No 27, 5th year, 29 December 1998, pp. 942 – 956 cooperative society's proclamation (No 147/1998

Ferdinand Meyer (2006) Model Closure and Price Formation under switching grain market Regimes in South Africa

Gebremeskel et al (January 1998) Market Structure, Conduct, and Performance: Constraints on Performance of Ethiopian Grain Markets Working Paper 8 Grain Market Research Project

Goetz, S. and M.T Weber (1986), fundamentals of price analysis in developing countries "Food systems; A training manual to accompany the micro computer software program, MASTAT" MSU international development papers working paper no79

I.M. Crawford, (© FAO 1997) Agricultural and Food Marketing Management, Marketing and Agribusiness Texts Rome

Johan Holmberg (1977). Grain marketing and land reform in Ethiopia, analysis of the Marketing and pricing of food grain in 1976 after the land reform, research report no 41, the Scandinavian institute of African studies, UPSALA

Julie A. Howard, et al (September 1995) Toward Increased Domestic Cereals Production In Ethiopia: Using a Commodity Systems Approach to Evaluate Strategic Constraints and Opportunitie

Kebebew Daka (1986 unpublished) Mass Organization and Cooperatives Management Addis Ababa University Faculty of Social Sciences Department of Applied Sociology

Kim B. Anderson Professor, et al Agricultural Marketing Price risk management: What to expect Marketing Efficiency and Efficient Marketing Oklahoma Cooperative Extension Service

Krishiworld, The pulse of Indian agriculture; Agricultural marketing and storage

Kyriakos Kyriakopoulos, (2000), the market orientation of cooperative organizations learning Strategies and structures for integrating cooperatives firm and members, the Netherlands institute for cooperative entrepreneurships

Marc Warman (April 1994) Cooperative Grain Marketing: changes, issues and Alternatives United States Department of Agriculture

Mark Lundy, *et al*., (August 2004), Increasing the Competitiveness of Market chains for Smallholder producers Manual 3: Territorial Approach to Rural Agro-enterprise Development Project CIAT,

MEDaC, GMRP (July 1996) Market Analysis Note #1 Emerging Market and Policy Responses to Ethiopia's Grain Harvest of 1995-961

MEDaC, GMRP (January 1997). The Response of Ethiopian Cereal Markets to Liberalization1 Market Analysis Note #2

MEDaC, GMRP (March 1997) Meeting Food Aid and Price Support Objectives Through Local Grain Purchase: A Review of the 1996 Experience in Ethiopia Market Analysis Note #4

Mohammed Nurzein (1993), periodic markets and agricultural development in south

Wollo Zone, Amhara Region

Mulat Demeke *et al* (March 1997) Promoting Fertilizer Use In Ethiopia: The Implications Of Improving Grain Market Performance, Input Market Efficiency, And Farm Management Working Paper 5

Murray McGREGO (June 2003) improving the efficiency of the agribusiness Supply Chain and quality management for small agricultural producers in Mindanao

Negarit Gazetta No 26, 29 April 1975, pp 93 – 101 A proclamation to provide for the public Ownership of rural lands

Negarit Gazetta No 6, 24 May 1982, pp 115 – 133 A proclamation to provide for the. consolidation of peasant associations

Peet, R (1972), influences of British Markets on Agriculture and related economic Development in Europe before 1860, institute of British geographers, transaction no, 56

Pernille Sorensen (December 2003). The Need for Rural Diversification: Food-Security Policies and Non-Farm Development in the Amhara Region, Ethiopia DIIS/Gl. Kongevej Working Paper 03.11

R. Mano Agricultural Commodity Marketing Challenges and Pricing Policy Strategies

RATES (July 2003) (Regional Agricultural Trade Expansion Support Program), Maize Market Assessment and Baseline Study for Ethiopia, the RATES Center Nairobi,

Samuel Benin et al Determinants of cereal diversity in communities and on household Farms of the Northern Ethiopia Highlands,

Samuel Benin, et al (June 2003) Determinants of Cereal Diversity in Communities and on Household Farms of the Northern Ethiopian Highlands Eptd Discussion Paper No. 105 Environment and Production Technology Division International Food Policy Research Institute 2033 K Street, N.W. Washington, D.C. 20006 U.S.A.

S.S. Acharya, N.L Agarwal, (1994) Agricultural prices, analysis and policy, New Delhi

Tesfaye Assefa ACDI/VOCA, Revitalizing market oriented agricultural cooperatives in Ethiopia

Thomas L. Sporleder Pricing Efficiency in Agricultural Markets**:** Pricing Policy Strategies*****

Wes Elliott, et al. Can the Grain Marketing System Provide Sufficient Quality Incentives to Producers? Oklahoma State University

Wolday Amha, *et al. (*May, 1997 Meeting Food Aid and Price Stabilization Objectives Through Local Grain Purchase: A Review of the 1996 Experience Working Paper 7-Grain Market Research Project

Xinshen Diao, et al (2007). Market Opportunities for African Agriculture: a *General* Equilibrium Examination of Demand-Side Constraints on Agricultural Growth in East and Southern Africa Research report 154 (IFPRI) International food policy research institute

7. Annexes

7.1. Annul prices and price indexes of selected crops

7.1.1. Monthly prices and price index at different Markets

Monthly Prices of Selected Crops in Bahir Dar Market

Month of the tear	2001/02			2002/03			2003/04			2004/05			2005/06		
	Teff	Maize	Beans	Teff	Maize	Beans	Teff	Maize	Beans	Teff	Maize	Beans	Teff	Maize	Beans
july	173.67	51.00	130.00	182.00	102.00	153.00	230.00	0.00	226.00	262.33	137.00	227.00	278.88	161.87	241.25
August	177.67	54.00	120.00	187.67	121.00	171.00	253.67	162.00	252.00	278.07	182.00	242.00	290.00	170.00	220.00
September	175.67	51.00	89.00	0.00	0.00	0.00	246.67	163.00	219.00	270.83	142.00	242.50	261.67	0.00	220.00
October	171.67	47.00	79.00	0.00	0.00	0.00	243.33	150.00	218.00	288.33	145.00	220.00	281.00	0.00	236.00
November	165.00	50.00	78.00	198.33	113.00	160.00	0.00	0.00	0.00	263.33	140.00	225.00	266.33	0.00	250.00
December	157.33	55.00	84.00	210.67	115.00	170.00	240.00	126.00	185.00	248.89	130.00	230.00	269.00	0.00	255.00
January	148.00	53.00	85.00	203.67	122.00	183.00	235.33	128.00	176.00	243.33	120.00	226.25	270.67	120.00	233.00
February	132.67	55.00	91.00	202.67	124.00	180.00	235.00	130.00	208.00	250.00	125.00	225.00	262.42	125.00	253.00
March	136.67	53.00	90.00	201.00	120.00	170.00	0.00	0.00	0.00	246.67	130.00	240.00	282.33	111.00	270.00
April	137.00	55.00	89.00	0.00	0.00	0.00	0.00	0.00	0.00	250.75	130.00	231.25	279.33	116.00	303.00
May	191.00	99.00	156.00	0.00	0.00	0.00	0.00	0.00	0.00	257.00	0.00	265.00	304.00	120.00	310.00
June	184.67	100.00	144.00	251.00	152.00	232.00	252.67	132.00	231.00	259.83	156.25	240.00	328.67	123.00	353.00

Source: Collected from regional price statistics of agricultural products of the Amhara region (BoTI 2006)

Price Index for Selected Crops in Bahir Dar Market

Monthes of the year	2001/02			2002/03			2003/04			2004/05			2005/06		
	Teff	Maize	Beans	Teff	Maize	Beans	Teff	Maize	Beans	Teff	Maize	Beans	Teff	Maize	Beans
July	133.92	98.18	131.87	0.00	0.00	0.00	107.94	124.62	121.15	111.23	145.60	107.56	110.51	136.00	86.96
August	132.41	92.73	97.80	0.00	0.00	0.00	104.96	125.38	105.29	108.33	113.60	107.78	99.71	0.00	86.96
September	129.40	85.45	86.81	98.67	94.17	94.12	103.55	115.38	104.81	115.33	116.00	97.78	107.08	0.00	93.28
October	124.37	90.91	85.71	104.81	95.83	100.00	0.00	0.00	0.00	105.33	112.00	100.00	101.49	0.00	98.81
November	118.59	100.00	92.31	101.33	101.67	107.65	102.13	96.92	88.94	99.55	104.00	102.22	102.51	0.00	100.79
December	111.56	96.36	93.41	100.83	103.33	105.88	100.14	98.46	84.62	97.33	96.00	100.56	103.14	96.00	92.09
January	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
February	103.02	96.36	98.90	0.00	0.00	0.00	0.00	0.00	0.00	98.67	104.00	106.67	107.59	88.80	106.72
March	103.27	100.00	97.80	0.00	0.00	0.00	0.00	0.00	0.00	100.30	104.00	102.78	106.45	92.80	119.76
April	143.97	180.00	171.43	124.88	126.67	136.47	0.00	0.00	0.00	102.80	0.00	117.78	115.85	96.00	122.53
May	139.20	181.82	158.24	0.00	0.00	0.00	107.52	101.54	111.06	103.93	125.00	106.67	125.25	98.40	139.53
June	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Source: Collected from regional price statistics of agricultural products of the Amhara region (BoTI 2006)

Annul prices and price indexes per quintals for selected crops in Bahir Dar Market (Base period 2001/02

Year	**Annual prices**			**Annual price index number**		
	Teff	**Maize**	**Beans**	**Teff**	**Maize**	**Beans**
2001/02	162.58	60.25	102.92	100.00	100.00	100.00
2002/03	204.63	121.13	177.38	125.86	201.04	172.35
2003/04	242.08	141.57	214.38	148.90	234.97	208.30
2004/05	259.95	139.75	234.50	159.89	231.95	227.85
2006/07	281.19	130.86	262.02	172.95	217.19	254.60

Source: Collected from regional price statistics of agricultural products of the Amhara region (BoTI 2006)

Monthly price of selected crops in Debremarkos Market

Month of the tear	2001/02			2003/04			2004/05			2005/06			2006/07		
	Teff	Maize	Beans	Teff	Maize	Beans	Teff	Maize	Beans	Teff	Maize	Beans	Teff	Maize	Beans
July	113.33	48.00	90.00	132.00	99.00	145.00	209.33	209.33	209.33	224.33	0.00	0.00	241.67	151.00	201.00
August	128.00	53.00	90.00	141.67	108.00	152.00	216.33	216.33	216.33	224.33	135.00	220.00	251.00	160.00	190.00
September	116.67	50.00	82.00	144.67	107.00	153.00	212.00	212.00	212.00	233.00	140.00	221.00	241.67	158.00	193.00
October	118.67	47.00	82.00	147.67	118.00	150.00	222.33	222.33	222.33	242.67	138.00	208.00	238.67	147.00	184.00
November	115.67	47.00	78.00	168.00	116.00	140.00	0.00	0.00	0.00	221.33	135.00	180.00	243.67	147.00	171.00
December	114.67	50.00	77.00	129.33	140.00	168.00	194.67	194.67	194.67	215.33	130.00	162.00	237.00	145.00	183.00
January	105.67	52.00	76.00	178.33	136.00	170.00	188.33	188.33	188.33	213.67	115.00	170.00	272.00	144.00	176.00
February	97.00	50.00	75.00	168.67	135.00	167.00	192.67	192.67	192.67	213.33	121.00	171.00	272.00	144.00	176.00
March	93.33	50.00	77.00	167.33	132.00	166.00	212.33	212.33	212.33	226.00	124.00	179.00	240.67	148.00	232.00
April	101.33	53.00	90.00	169.00	134.00	172.00	0.00	0.00	0.00	230.00	122.00	183.00	189.00	145.00	240.00
May	117.33	72.00	124.00	192.00	158.00	191.00	0.00	0.00	0.00	232.33	140.00	187.00	270.67	148.00	262.00
June	146.00	122.00	154.00	202.00	166.00	200.00	200.67	200.67	200.67	0.00	137.00	194.00	300.67	160.00	288.00

Source: Collected from regional price statistics of agricultural products of the Amhara region (BoTI 2006)

Monthly price index/price relative in Debremarkos Market

Month of the tear	2001/02			2003/04			2004/05			2005/06			2006/07		
	Teff	Maize	Beans	Teff	Maize	Beans	Teff	Maize	Beans	Teff	Maize	Beans	Teff	Maize	Beans
July	116.84	96.00	120.00	78.26	73.33	86.83	108.65	108.65	108.65	105.16	0.00	0.00	88.85	104.86	114.20
August	131.96	106.00	120.00	83.99	80.00	91.02	112.28	112.28	112.28	105.16	111.57	128.65	92.28	111.11	107.95
September	120.27	100.00	109.33	85.77	79.26	91.62	110.03	110.03	110.03	109.22	115.70	129.24	88.85	109.72	109.66
October	122.34	94.00	109.33	87.55	87.41	89.82	115.40	115.40	115.40	113.75	114.05	121.64	87.75	102.08	104.55
November	119.24	94.00	104.00	99.60	85.93	83.83	0.00	0.00	0.00	103.75	111.57	105.26	89.58	102.08	97.16
December	118.21	100.00	102.67	76.68	103.70	100.60	101.04	101.04	101.04	100.94	107.44	94.74	87.13	100.69	103.98
January	108.93	104.00	101.33	105.73	100.74	101.80	97.75	97.75	97.75	100.16	95.04	99.42	100.00	100.00	100.00
February	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
March	96.22	100.00	102.67	99.21	97.78	99.40	110.21	110.21	110.21	105.94	102.48	104.68	88.48	102.78	131.82
April	104.47	106.00	120.00	100.20	99.26	102.99	0.00	0.00	0.00	107.81	100.83	107.02	69.49	100.69	136.36
May	120.96	144.00	165.33	113.83	117.04	114.37	0.00	0.00	0.00	108.91	115.70	109.36	99.51	102.78	148.86
June	150.52	244.00	205.33	119.76	122.96	119.76	104.15	104.15	104.15	0.00	113.22	113.45	110.54	111.11	163.64

Source: Collected from regional price statistics of agricultural products of the Amhara region (BoTI 2006)

Major Crops grown in the study area and the market prices/kilogram in the local markets of Amhara Region 2006

Major Crops	type of price	Teff			Barely			Maize	Horse Beans	Peas	Niger Seed	Linseed	Rape Seed
		White	Mixed	Black	White	Mixed	Black						
North Gonder	local price	3.09	2.62	2.43	2.36	1.99	1.92	1.1	2.81	2.68		4.54	4.29
	Imported price	3.27	3.65	3.05	0.07	3.45	2.36	1.31	2.89	3.27			2.11
south Gonder	local price	3.19	3.14	3.02	2.24	1.65		1.93	2.99		3.85		
	Imported price	3.24	3.62	3.02	0	3.42		1.28	2.86		3.35		
North Wollo	local price	3.94		3.38	3.64	1.4			2.48				
	Imported price	3.34		3.12		3.52			2.96				
South Wollo	local price	4.54	3.73	3.48		2.02			3.41	3.72		4.17	
	Imported price	3.39	3.77	3.17		3.57			3.01	3.39	3.5		
North Shewa	local price	3.88	3.49	3.08	2	2	1.86	1.94	3.58		5.43	4.94	
	Imported price	3.5	3.88	3.28		3.68	2.59	1.54	3.12		3.61		
East Gojjam	local price	3.83	3.69	3.44	2.6	2.95		1.62	3.91				
	Imported price	3.31	3.69	3.09		3.49		1.35	2.93				
Waghimra	local price			3.28	3.1		3.1		2.79				
	Imported price			3.2			2.51		3.04				
Awi	local price	3.31	3.22	2.83		2.06		1.35					
	Imported price	3.25	3.63	3.03		3.43		1.29					
Oromiya	local price	3.72						1.47					3.57
	Imported price	3.42						1.46					2.26

Source: Collected from regional price statistics of agricultural products of the Amhara region (BoTI 2006)

7.2. Data collection formats

Mekelle University

Faculty of Dry Land Agriculture and Natural Resources

Department of Ccooperatives

Evaluation on Grain Marketing Efficiency of Merkeb Multipurpose Farmers Cooperatives Union

Objectives of the Research Include

The evaluation on the efficiency of the marketing performance of cooperatives, the market share of cooperatives in the regional grain marketing activities, and the identification of the grain marketing problems of cooperatives and their members in the research area. Thus to complete this work the following data collection formats were developed

7.2.1. Household level data collection format

1. Name of the household head _____
2. Gender Male Female
3. Age years _____
4. Marital status. 1. Single 2. Married 3. Widowed 4 Divorced

   Number of household members 1. Male ___ 2. Female_____
5. Address: Zone _____Woreda _____ Kebele _____ Gotte _____
6. Can you read and write in Amharic 1. Yes 2. No
7. If yes to the above: Level of education attained in year _____
8. Year of joining the multipurpose cooperative? Year _____
9. Number of shares you hold _____
10. Who motivate you to join the cooperative?

    1. Own accord 2. Neighbors 3. Cooperative leaders 4 Friends 5. DA 6. Others, specify

    Reason to join the cooperative

1. To get employment 2. To get farm inputs 3. To get marketing facilities 4. Others, specify

11. How frequents you invited to attend the meeting of the society?

    1. Very frequently 2. Frequent3. Sometimes 4. Not at allHave you attended all the meetings you invited for? 1. Yes 2. No

12. If no; to the above, what are your reasons for not attending

1. Household occupations 2. Community works 3. Poor importance of attending

4. Poor attraction of issues 5. Weakness of cooperative leaders 6. Conflict with other members

7 others, specify _____

13. How do you evaluate the leadership quality of the cooperative?

1. Very strong and participatory 2. Strong and better 3. Fairly well 4. Weak and disorganized.

5. Dictator and poor participatory

14. Are you getting your dividends timely? 1. Yes 2. No

15. Have you owned cropland 1. Yes 2. No

16. If yes, to the above; Cultivated land in the last production season in hectare

17. If no, to 2.2, how can you produce crop 1. Rent land 2. Crop sharing 3. Contact farm

4. Others, specify _____

18. What type of cultivation you use to produce grain? 1. Rain fed 2. Irrigated farming 3. Both

19. Have you applied farm inputs to increase production? 1. Yes 2. No

20. Describe the costs of production in the last production season?

S/n	Item	Measurement	Quantity	Unit cost	Total cost (Birr)
1	Seeds	Quintal			
2	Fertilizer	Quintal			
3	Pesticide	Litter			
4	Labor	Man day			
	Household				
	Hired				
5	Other costs				

21. Types of crop produced in quintal

Crop type	Volume in qtl	Crop type	Volume in qtl

22. Number and type of draft animal for plough a. Oxen ___ b. Equines __ c. Non __

23. Do you own domestic animals? 1. Yes 2. No

24. If yes, list the type and number 1. Cattle 2. Equines 3. Small ruminants 4. Poultry

28 Do you own the following?

1. Television 1. Yes 2. No 2. Radio 1. Yes 2. No

3. Telephone line 1. Yes 2. No 4. Wristwatch 1. Yes 2. No

29. Are you adopting any improved farm technology to bust your product?1. Yes 2. No

30. If yes, what type of technology you adopted

1.Fertilizer 2.Improved seeds 3.Chemicals 4. Farming systems 5. Post harvest handling

6. Farm machinery and tools 7. All the above 8 others, specify

31. Has your cooperative society taken any effort to teach you improved technology? 1 Y 2. N

32. If yes to the above, give the details_____

33. Do you produce grain for the purpose of marketing? Yes No

6.2. Volume of grain you marketed in quintals in the last production season?

S/R	Grain type	Volume (quintal)	Price/quintal (Birr)
1			

34. To whom did you sell and what was the volume?

S/R	Purchaser	Volume in quintal
1	Consumers	
2	Retail traders	
3	Whole sellers	
4	Cooperative	
5	Government	
6	NGO	

35 Did you find the marketing relation you have with the cooperative to be useful?

1. Yes 2. No 3.not yet clear

36. How does your cooperative society market your produce? Discuss the way_____

37. Are you satisfied with their method of marketing? 1. Yes 2. No

38. If no to the above, what are the drawbacks in the present marketing system?

39. What are your suggestions to improve them?

40. Did you observe any malpractices in the marketing of grains? 1. Yes 2. No

41. If yes, please list them out

42. To whom you prefer to sell the marketed grain

---

1. to the local market for any purchaser 2. to the cooperative 3. To retail traders 4...To whole sellers 5. to government and non government organizations

43. Why do you prefer the particular purchaser for your grain?

1. It pay better price 2. It provides some incentives for my supply 3. Am also beneficiary of the marketing 4. The market is easily accessible 5. No specific reason

44. Do you find the marketing relation you have with the cooperative to be useful?

1. Yes 2. No 3. Don't know

45. What are the variety of grain you sale? List the type and volume and its respective demand preference

S/R. No	Crop type	Volume in quintals	Degree of demand			
			V. High	High	Fair	Low
1						
2						

46. What is the price variation as per variety differences?

1. Very high 2. High 3 Low 4. No variation

47. Are there changes in prices over time? 1. Yes 2.No

48. If yes, what are the reasons? List according to their magnitude_____

49. Do you find problems of selling your products?

1. Quality 2. Transportation 3. Poor price 4. Competition 5. Storage 6. Transaction costs 7. Others, specify _____

50. What is the shelf life of the products?

1. One month 2. Two months 3. Three months 4. Six months 5. One year 6. Above one year

51. How much do you usually store in quintals?

1. Half of the production 2. Quarter of the production 3. Not at all 4. Other specify

52. Why you store? 1 For household consumption 2. To get better price 3. No reason

53. Do you have any storage problems? 1. Yes 2. No

54. Do you experience storage losses? 1. Yes 2. No

55. If yes what are the reasons?

1. Rodents 2. Termites 3. Misuse of household members 4. Quality of storage 5 others,

56. What are your transaction costs? 1. Payment for broker services 2. Payment for weighing equipment 3. Storage service rent 4.all the above 5. Other specify

57. What is their proportion compared to your selling price?

58. Do you grade or sort before marketing your grain? 1. Yes 2. No

59. Are there price differences for graded grains? 1. Yes 2. No

60. Do better grades fetch higher prices? 1 yes 2. No

61. Who determines the prices?

1. The seller 2. The purchaser 3. Brokers 4 government firms 5. Others, specify

62. If firm/individual is a price taker, find out why _____

63. How are the prices determined? _____

64. Is there a relationship between grain prices in different areas at a given time

65. Is there price competition among farmers? 1. Yes 2. No

66. Where is your nearest market place? _____

67. What is its type? 1. Weekly 2. Daily 3. Seasonal

68. How many hours does it require for round trip on foot? _____

69. What type of transport you use to take your grain to the market? ____

70. Do you get market information? 1. Yes 2. No

71. If so from whom and how_____

72. Do you agree, disagree or are not sure that the cooperative has

Sr. No	Decision views	Agree	Disagree	Not sure
1	A good pricing policy			
2	A good capacity to disseminate market information			
3	A capacity to carryout grain marketing competitions			
4	A coordination capacity to solve marketing problems			

73. Are there any market regulations in your local market? 1. Yes 2. No

74. If yes what are they and how do they affect your grain marketing

75. Are there any credit institutions? 1 yes 2. No

76. Do you use them? 1 yes 2. No

77. What are their rates of interest? _____

78. What kind of crops you consider the most important grain in terms of market demand

Sr.N	Type of grain	Most important	Important	Not that much

1				
2				

79. What was the volume of money you earn in the last month; identify the sources and volume of money earned

S/R. No	**Possible sources**	**Volume of money earned (Birr)**
1	Sell of grain	
2	Sell of livestock	
3	Sell of woodlots	
4	Sell of services	
5	Sell of handicraft products	
6	Dividend from cooperative	
7	Ekub	
8	Aid	
9	Relatives and friends	
10	Others, specify	

80. In which month of the year you get better volume of money

Month _____ money obtained in Birr_____

81. What was the volume of money you spend in the last month; identify the expenditure by possible category

Sr/N	Possible hh expenditure	Volume of money spend in Birr
1	**Farming expenditure** (Seeds, fertilizers, pesticides, labor)	
2	**Purchase of livestock**	
3	**Expenses for hh requirements** (Food stuff and preparation, health, education, hh safety)	
4	**Social and legal obligation** (eddir, religion, taxation, association fees etc)	
5	**Total**	

82. What are the problems you observed on the activities of the primary cooperative

1. Poor management experience 2. Corruption 3. Poor facilities and services
4. Marketing and pricing problem 5. Poor members' coordination
6. Not competent with others in the local market 7. Others, specify

7.2.2. Information on the Cooperatives union level

1. Name of the cooperative union_____

2. Location: 1. Zone _____2 Woreda _____3. Kebele ___ Telephone No ____

3 Year of establishment _____

4. Year and date of registration _____

5. List the rural woredas covered by the marketing services of the union

Sr,n	List of woredas	Zone	Number of affiliated coops

6. Number of individual members by sex

7. Founding members, male _____female ____ 2. Existing members, male ____female ____

8. Annual membership condition since its establishment by affiliated coops

(Attach the list of affiliated cooperatives join the union annually)

Woreda	Name of the coop	Annual distribution of private members by sex									
		Year 1		Year 2		Year 3		Year 4		Year 5	
		M	F	M	F	M	F	M	F	M	F

9. Number of the board of directors (management committee) 1. Male _____2. Female _____

10. Level of education attained by each member of the board

Sr. N	List of board members	Level of education attained	Service years in office
1			
2			

11. Is there a training provided to the board members 1. Yes 2. No

Training type	Number of participants		Year of training
	Male	Female	
Training of farmer members			
Training of managers on cooperative development			
Board training on cooperative development			
Training on grain marketing analysis & monitoring for board members			
Grain quality control for board members			
Grain quality control for managers			
Training for members on post harvest handling			
Other trainings			

12. If yes who provided the training? _____

13. List the number of participants in the trainings

14. Number of employees by type jobs, sex and level of education

Sr. no	List of jobs (responsibilities)	Sex	Education	Monthly salary
1				

15. Properties of the cooperatives (List the major office equipment and machinery by source)

Sr. No	Equipment	Acquired through		
		Purchase	Aid	Other, specify
1				
2				

16. Buildings and type of building materials

17. Office 1. Number of rooms _____ 2. Building materials

1. Wood, mud and thatched roof 2. Wood, mud and corrugated iron roof

3. Hollow blocks and corrugated iron roof

18. Shops and their type 1. Industrial commodity 2. Agricultural commodity Building materials of the shop(s) 1. Wood, mud and thatched roof

2. Wood, mud and corrugated iron roof 3. Hollow blocks and corrugated iron roof

19. Does the union own its storage facilities to collect grains? 1. Yes 2. No

20. What type and number of grain storage the union owns?

1. Upright storage _____ 2. Flat storage _____

21. Describe the number, capacity and quality of storages in the table below

S/r N	Construction materials of walls and roofs for flat storage	Uncovered floor		Covered with plastic sheets		Cemented floor		Wooden lattice lifted from ground	
		#	Capacity	#	Capacity	#	Capacity	#	Capacity
1	Wooden and mud plastered walls thatched roof								
2	Wooden and mud plastered walls with corrugated iron roof								
3	Masonry walls with corrugated iron roof								
4	Non synthetic tents								
5	Synthetic tents								
6	Others								

22. If the union has no its own storage how it assemble the purchases?

1. Temporary sheds 2. Rented house 3. Government store 4. Others, specify

23. Does the union established assembling sites near to farm gates? 1. Yes 2. No

24. If yes, how many? _____

25. Do you have criteria to select the sites? 1. Yes 2. No

26. If yes, what are the criteria? _____

27. Do you identify the competitors of your grain marketing? 1. Yes 2. No

28. If yes, show the degree of competition of each competitor in relation to a particular crop

Type of competitor	Type of grain	Level of competition		
		Very high	High	Low

29. Does the union purchase grains from non-members too? 1. Yes 2. No

30. if yes, what percentage of the grain you purchase comes from non members for the last five years

Year	Seller	Crop type				
		Niger seeds	Telba	Sesame	Maize	Others
19____	**Total**					
	Members					
	Non members					
19 ____	**Total**					
	Members					
	Non members					

31. Are the union members obliged to deliver their entire production to the union?

1. Yes 2. No

32. Do members deliver quantities set by contracts 1. Yes 2. No

33. Does the union obliged to receive what member cooperatives deliver? 1. Y 2 N

34. Do members charged with different transportation costs per unit of grain depending on the distance from the assembling market? 1. Yes 2. No

35. Do you have members who possess not farm plots? 1. Yes 2. No

36. If yes to the above, how can they supply grain to the cooperative?

37. What are the shelf lives of the produces you purchase? Show with the type of crop

38. What are the modes of transport for members to bring their produce to the assembling sites? 1. Shoulder 2. Pack animals 3. Vehicles 4. All

39. To whom the union sells its purchase? List the purchasers and the quantity sold and the underling prices of grain sold

40. What are the costs you incur to purchase each grain from sellers? Please use the following breakdown to show all costs clearly

1. Handling costs

Sr,N	Particular	Cost in birr
1	Costs for laborer to unload the produce at assembly market and to weighed	
2	Costs to repackage the produce in to your containers	
3	To unload the produce on your truck	
4	To unload at the union market	

Transport costs (if you have your own truck list the detail)

Sr.N	Particular	Cost in birr
1	Wages and salary	
2	Fuel and lubricant	
3	Repair, maintenance	
4	Cost of licenses	
5	Road tax	
6	Insurance & other necessary payments	
7	Hidden costs like road blocks, bribes, market charges	
8	Capital costs of the vehicle	

3. Product losses (estimate the losses in quintals and put its birr equivalents----------

4. Storage costs

Sr. n	Particular	Cost in birr
1	Costs of physical operation • Depreciation on the building • Security costs • Electricity and other utility costs and maintenance	
2	Costs for maintenance of the product quality while it is in store, ex cost of chemicals	
3	Costs for loss of quality and quantity while the produce is in store	

41. Do you have cost of primary processing? 1. Yes 2. No

42. If yes, what are the costs you incur for the processing and how you use the by – product?

5. Capital costs

Sr n	Particular	Costs in birr
1	The Cost of money needed to buy the produce from farmers	
2	Cost of a warehouse or a truck	
3	Capital cost of other buildings or of equipment, such as office space, weighing scales, grain drying equipment	
4	The depreciation or loss of value of the vehicle, warehouse or equipment etc of the cooperative	

43. Who determine the prices of grain while purchasing from farmers?

1. The farmer 2. The cooperative 3. The union 4. Bargaining 5. The open market

44. Does the primary cooperative decide the price of the grain while selling to the union?

1. Yes 2. No

45. If yes to the above, what are the factors you consider when you decide the price? List the factors according to their importance

46. Does the union face the problem of price fluctuations in the last 5 years? 1. Yes 2. No

47. If yes, give the details

48. Does the union distribute dividend to members? 1. Yes 2. No

49. If yes, give the details 50. If no, give the details of the reasons

51. Please discuss the major problems tempting the activities of the union under the following categories Organizational ____ Structural____ Policy of the union and or the government In relation to competitors__ Infrastructure _____ Environmental and others