学 位 申 請 論 文

Farmers' Coping Strategies with the Changes of Coffee Marketing System after Economic Liberalisation: The Case of Mbinga District, Tanzania

経済自由化後のコーヒー流通制度の変容と農民の対応
—タンザニア、ムビンガ県の事例—

David Gongwe Mhando

Thesis

Submitted in a partially fulfilment of the requirements for the
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ABSTRACT

Mbinga District is well known as one of the major coffee producing areas in Tanzania. The inhabitants of the district known as the Matengo, combine ngolo cultivation to produce food crops and also engage in coffee cultivation for income. In 1986, the Tanzanian government introduced an Economic Recovery Programme that liberalized coffee marketing in 1993. In 2002, the government introduced a single licensing system in the coffee industry to stimulate competition among buyers and improve income for farmers. At the same time, the global coffee market witnessed improvement in production and processing technology, and the entry of new coffee producing countries. These resulted in global overproduction that decreased prices of coffee to unprecedented levels. A coffee industry that supported the national economy of Tanzania for many years was ushered into a period of transformation and uncertainty. This thesis documents and examines the trend in policy evolution and the effects these have had on the practice of stakeholders in Mbinga District. The nature of the rural economy is evaluated under the previously state controlled marketing system. The farmers' responses and coping strategies during the period of economic liberalization are then analysed and discussed.

Chapter 1 describes the historical transition of policies from African Socialism to economic liberalization and the tendency of diversification of rural livelihoods after which the objectives of this study are stated. In Chapter 2, an outline of the livelihoods is described and coffee cultivation is contextualized with the farming system. Chapter 3 compares changes in coffee marketing policies before and after economic liberalization, and sequences the characteristics in a historical perspective. In chapters 4 to 6 the case study of Mbinga District is documented, analysed and presented. Chapter 4 outlines the roles of and changes in the Mbinga Cooperative Union (MBICU), Private Coffee Buyers (PCBs), and Primary Societies (AMCOS), and analyses the marketing system. In Chapter 5 describes the current situation and problems of the coffee industry in Mbinga, the fluctuation of coffee prices and cost of agricultural inputs, and the strategies employed by stakeholders to cope. Prior to economic liberalization, MBICU facilitated coffee farming by providing credit, affordable inputs and marketing. After economic liberalization, MBICU could not obtain loans from commercial banks to continue supporting coffee cultivation because it did not service loans that were previously provided. Moreover, its capacity was rapidly weakened due to competition from the PCBs and it subsequently collapsed in 1996. The PCBs filled the gap left by MBICU. However, the PCBs did not provide services to coffee farmers similar to that provided by MBICU. They did not avail agricultural inputs and credits to farmers. The farmers, who previously depended on MBICU for the provision of affordable inputs, faced severe economic difficulties as production costs increased. The farmers were dissatisfied by the purchasing system adopted by the

PCBs. The price of chemical fertilizers began to increase after 1996, while the market price of coffee decreased rapidly. In 2002, when a single license system was introduced, AMCOS started to purchase coffee and established a payment system where part of the farmer's income was paid in form of input purchase vouchers. This system assisted the farmers to obtain inputs thereby contributing to solve the problem of inputs.

Chapter 6 examines farmers' coping strategies in response to policy changes by analysing the results of field research conducted in the villages. The transformation of both the rural economy and the farming system are described. Although many farmers who marketed coffee through the AMCOS appreciated the voucher system, they preferred selling coffee to the PCBs to the AMCOS. As such PCBs bought more coffee than AMCOS. This indicates that the farmer's recognized the importance of management of expenditures based on their previous experiences with market economy, which greatly changed the structure of the rural economy. Consequently, coffee revenue, which was once invested in business, is currently invested in other activities to generate income and this assists the farmers to reduce the risks.

When the global market prices stagnated, the government encouraged the purchase of coffee according to each grade a situation that motivated the farmers to produce high-quality coffee in a bid to increase income. The farmer's organized themselves into groups that trained farmers to produce high quality coffee and identify appropriate marketing outlets. Introducing improved varieties and obtaining appropriate technology enhanced coffee quality. Selecting the most cost effective market for each grade maximized income. Networks and linkages among farmers' groups became well established. The strategy of producing high quality coffee and identifying the most cost effective buyers spread fast among farmers in Mbinga District.

An evaluation of the farmers' coping strategies after economic liberalization revealed a structural transformation of the rural economy. The farmers tried various strategies to cope with policy changes within the context of their natural and social environment while making the best use of their experiences with the market economy. However, oversupply keeps prices stagnant while the prices of inputs keep rising. The sustainability of coffee cultivation in Mbinga will depend on constant supply of inexpensive inputs. It is presumed that formation of a cooperative union that pursues profit and values transparency while facilitating coffee farming, AMCOS and farmers' groups would play a key role. It can be concluded that ten years of economic liberalization detached farmer's from a state subsidized system to one of economic self-reliance that modified the structure of the rural economy.

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Although it bears my name this piece of work would not have been accomplished so easily and in time without the timely guidance and contributions from other people to whom I am greatly indebted. First and foremost, I would like to express my deep gratitude to my academic supervisors; firstly, Prof Makoto Kakeya for his fatherly guidance which is highly appreciated. He actively participated and provided useful insights during the critical times. Secondly are Professors Juichi Itani and Jun Ikeno who also advised me in various ways on how to write and improve this thesis as well as advising and assisting me during data collection in Mbinga and Kilimanjaro respectively. Special mention should also be made of Books, reports and journals provided to me by Prof Ikeno which were well utilised in the course of this study. Furthermore, I utilised the research experience of Assistant Prof Minako Araki, my research collaborator in Tanzania. She constructively reviewed my drafts during the writing of this dissertation. All of them worked tirelessly, day and night, in order to assist me complete my studies on time. Moreover, the staff of the African Centre assisted me in many ways during my study tenure: a special note of appreciation goes to Ms Kumiko Tsuru and Aki Minami. I am very grateful to all of them for providing me with such a unique learning experience.

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I hope the relevant authorities will use the findings and recommendations of this study to improve the coffee industry in Mbinga and livelihoods of coffee farmers. I am also grateful of coffee farmers in Kitanda, Kindimba and Mkumbi villages who provided me with data for this study. I am very grateful to them for sparing their limited time to answer questions posed to them. I am also thankful to Mr. Nicodemus Ngalima Kinunda of Kindimba village and Ignas Ndunguru of Kitanda village who accommodated me during the entire time of research. Their kindness is highly appreciated.

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Limited (MCCCo Ltd), Mr Donald Kisongo; Staff of the DALDO's office, District Coffee Inspector, Mr. Chekelea Komba; the Secretary of the AMCOS committee, Mr. Godwin S. Mhando; officer in charge of TaCRI, Mr. Fidelis Swai and Director of Techno Serve in Mbinga Mr. Adolph Kumburu. Also identified for special thanks are Mr. Frank Nyarusi of Tanzania Coffee Board, the General Manager of Kilimanjaro Cooperative Bank, Think Kullayar for providing me information with useful information and insight on how their organisations have changed and adjusted themselves over time

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ABBREVIATIONS

AKSCG	Association of Kilimanjaro Speciality Coffee Growers
AMCOS	Agricultural Marketing Cooperative Society
BOT	Bank of Tanzania
CBD	Coffee Berry Disease
CFC	Common Fund for Commodities
CPU	Central Pulpers Unit
CRDB	Cooperative and Rural Development Bank (1996) Ltd
DALDO	District Agriculture and Livestock Development Officer
DCO	District Cooperative Officer
DED	District Executive Director
FAO	Food Agriculture Organisation
FFS	Farmers' Field School
ICRA	International Centre for Development Orientated Research in Agriculture
IFAD	International Fund for Agricultural Development
IMF	International Monetary Fund
KCB	Kilimanjaro Cooperative Bank
KIMULI	Kitanda, Matili, Unango and Lipumba
KNCU	Kilimanjaro Natives Cooperative Union
KNPA	Kilimanjaro Native Planters' Association
JICA	Japan International Cooperation Agency
MANCU	Matengo Natives Cooperative Union
MBICU	Mbinga Agriculture Cooperative Union
MCB	Mbinga Community Bank
MCCCo	Mbinga Coffee Curing Company
MDC	Mbinga District Council
NCIVS	National Coffee Inputs Vouchers Scheme
NGO	Non Government Organisation
NGOMATI	Ngoni Matengo Cooperative Marketing Union
NIC	National Insurance Company
NMB	Nation Micro-Finance Bank
PCB	Private Coffee Buyer

RCU	Ruvuma Cooperative Union
RURECU	Ruvuma Region Cooperative Union
SACCOS	Savings and Cooperative Credit Societies
SAP	Structural Adjustment Programme
STABEX	Fund for Stabilisation of Export Earnings
TaCRI	Tanzania Coffee Research Institute
TCB	Tanzania Coffee Board

CHAPTER ONE: INTRODUCTION

1.1. BACKGROUND OF THE STUDY

1.1.1. Globalisation and economic reforms in Tanzania: A brief history

The analysis of coffee marketing in Tanzania entails a review of the current stage of the process of globalisation and its impact in the country. This particular period marks the transformation from the state centred human activities that dominated the previous era to the present time. Under the current changes or globalisation, there has been intensification of the world wide social relations which link distant localities in such a way that local happenings are shaped by events occurring many miles away (Giddens, 1990).

There are so far two opposing views on globalisation, those which support globalisation as a positive process and those who oppose it as being detrimental to African economies. Talking about globalisation, Boyce (2002) and Wangwe (2002) argue that globalisation has connected the regions across the world as a whole by reducing of economic distances between nations. In addition, the integration processes are strongly associated with rapid development in technology, production, trade, and finance.

At this juncture sufficient it to also point out that there are two trends of globalisation: production and trade along with finance and capital flows. Thus, proponents for globalisation see it as the process that has enabled the world to function as one economic unit. On the other hand, there are also critics of globalisation who argue that the globalisation process has been facilitated by policy changes towards economic liberalisation. Although greater openness of, and interdependence between, national economies provides opportunities for developing economies, it is not without challenges.

The position of the African countries in the global economy is more important now than before (Woodward, 1998; Rugumamu, 2002). It is also important to note that African agricultural based economies can be easily affected by the natural disasters such as weather, diseases, and low harvest. The same economies are also very vulnerable to price fluctuations at the world market. Thus, an increase in prices of agricultural commodities may only bring temporary but not long-term prosperity (Kennes 1997; Hoffmaister, 1998; Rugumamu, 2002). Consequently, farmers have increasingly been faced by a situation in which they are required to change their traditional production systems to cope with rapid externally induced changes or globalisation. Moreover, the trend of globalisation in Africa has induced changes involving the movement from the previously state controlled socio-economic, political and governance systems to the liberalised ones.

The economic and social changes that were brought about by both the era of socialism and the economic liberalisation in Tanzania make it a very unique country compared to other countries in Africa. In 1967, the Tanzania government adopted the Arusha Declaration that advocated the policy of socialism *(Ujamaa)* and self-reliance. The Arusha Declaration resulted in the nationalisation of all major means of production, such as banks, sisal and coffee plantations, industries and major shares of subsidiaries of the multinationals corporations operating in the country (Coulson, 1982). The state took over the control the economy, provided free social services to the people, and tried to build a nation based on equality (Nagu, 2001). Through the course of implementing `Ujamaa` policies, the government adopted the villagisation policy from 1969-1975. It was an attempt to shift the people from scattered settlement to the planed villages in order to facilitate the provision of social services closer to the people. In Ujamaa villages, it was expected that people would live and work together, and all major means of production would be owned communally (Nyerere, 1976). However, through the implementation of the Ujamaa policy, the government created a dependence syndrome, in which the government became a provider of free services, while the people became passive and dependent recipients. However, implementation of Ujamaa policies was beset by several factors such as poor planning, the 1974 oil crisis, and the droughts of 1974 and 1979 (Shivji, 1975; Pratt, 1976). Thus, the capacity of the government to provide free services declined. The abolition of farmers' cooperatives in 1976 further exacerbated the crisis situation in the rural economy (Coulson, 1982; Maghimbi, 2000). The economic situation was further complicated by the balance of payments' crises that faced the country in 1980's. The net effect of all these policies was the decline of the economy, which forced the government to abandon Ujamaa policies and start the implementation of liberal economic reforms.

The period between 1981 and 1986 witnessed major social and economic changes in Tanzania. During this time, the government adopted several adjustment measures such as the National Economic Survival Programme (NESP), Structural Adjustment Programmes (SAPs), Economic Recovery Programme (ERPI), and Economic Recovery Programme II (ERPII) in order to redress the as the economic crisis (see annex 1). While the Tanzanian government designed the first two measures independently, the proceeding two economic liberalisation programmes were done under the supervision of the IMF and World Bank from 1986. Generally, the programmes aimed at correcting the economic imbalances such as equating the government expenditure with national income and the attainment of greater efficiency in resource allocation. Furthermore, attempts were made to increase production in the agricultural sector to reduction of inflation, and an increase of exports in order to reduce shortage of foreign exchange. In addition, local available raw materials were used in order to reduce dependency from outside the country. The liberalisation of the banking and other financial systems which was undertaken in 1991 limited the chances for cooperatives to obtain loans for purchasing of farmers produce, loans and distributing agricultural inputs to their members. In the agricultural sector, economic liberalisation meant freeing domestic markets to the private sector as well as removal of government subsides on agricultural inputs. In both cases, market forces now determine the prices. In the case of coffee, liberalisation of domestic coffee marketing started in 1994. It was aimed at allowing market forces determine the prices rather than the government (Mwakalobo, 2001; Cooksey, 2003). Moreover, it entails opening the market to private buyers (for both inputs and outputs) who were allowed to compete with farmer's cooperatives (Temu, 1999; Ponte, 2002). Consequently, the free markets replaced the previous systems in which farmers' cooperative had monopolised the purchase of crops from farmers. The following section dwells on the farmers' response to free markets.

1.1.2. Farmers responses to Economic Liberalisation

Economic liberalisation in African countries has emphasized the centrality of market forces and limited the role of the African states in the management of the economy and the provision of free social services. In addition, SAPs policies have resulted in increases of prices of agricultural inputs and a slump in coffee prices that have led to decreased incomes for farmers. This, led in, turn led to unmet cash needs for most households that can not be met by the incomes from commercial agriculture (Larson, 2001; Bryceson, 2002; Ponte, 2002). The gap between farmers` income and increasing cash needs provided an impetus to farmers to engage in non-agricultural income generating activities (Larson, 2001). Bryceson (1996) has dubbed this shift as the `de-agrarianisation`, a process where the rural population is becoming less agrarian in nature or when farmers are increasingly becoming dependent on other sources of income and less on farming activities. In Africa, de-agrarianisation has thus been seen as a coping strategy to the crisis caused by SAPs (Bryceson and Jamal, 1997).

The farmers' responses to economic liberalisation have indicated their flexibilities in adapting to, and exploiting, the situation. As noted by Bryceson (2002), different factors determine the nature, type, and success of the income generating activities undertaken by the farmers in various agro-ecological zones. For example, economic liberalisation has opened new marketing opportunities by pushing farmers to shift from growing "slow crops" such as coffee, maize, and tobacco to growing "fast crops" such as banana, beans, tomatoes and wide ranges of vegetables which require less inputs and take short time to mature (Larson, 2001; Ponte, 2002; Bryceson, 2002).

Several case studies can be cited to support 'de-agrarianisation' and subsequent farmers' responses to the change of market. In Meru, for instance, farmers have shifted from coffee cultivation and turned their land to cultivation of vegetables, renting their land and migrating to towns in search of employment outside the agricultural sector (Larson, 1999). Likewise, Bryceson (2000) cites two cases in Tanzania, including Mwanza, where farmers shifted from cotton production to non-agricultural sources of income, and Njombe where young households have shifted from agricultural to non-agricultural economic activities.

For many years, coffee was the number one foreign exchange earner in Tanzania. The decline in prices of coffee affected both the incomes of the farmers and government revenue. For example, between 2001 and 2002, the prices of coffee in the world market decreased by 17.9 percent, from US$ 1,1791 per ton in 2001 to 968.4 per ton in 2002. The decline was caused by oversupply of coffee in the world market, caused by increased production from major producers, namely Brazil and Vietnam (URT, 2002). Correspondingly, the production and export revenue from coffee in Tanzania in 2002 decreased by 24.8 percent from 48,390 tons in 2001 to 36,370 tons in 2002. In addition, the value of coffee exports decreased by 38.2 percent from US$ 57.1 Millions in 2001 to US$ 35.1 million in 2002. However, in 2002, tobacco and cashew nuts contributed more than coffee and thus eroded the importance of coffee as the most important foreign exchange earner among traditional cash crops (URT, 2002). Thus, farmers who cultivate coffee mainly for export were negatively affected by the decrease in prices at the world market and as a consequence, their ability to manage their coffee plots declined. In Kilimanjaro, which was the biggest coffee producing zone, the farmers started shifting from coffee to other sources of income after the economic liberalisation measures. Ellis (2000) states that the importance of coffee has declined due to decreasing prices as against the high prices of inputs, high incidence of diseases, and the aging of coffee trees. Under these circumstances, the farmers in Kilimanjaro have shifted from coffee cultivation to growing vegetables, sunflower, potatoe- ..., keeping diary cattle.

Having introduced the general reactions of the farmers to economic liberalisation, the proceeding section addresses itself to the objectives of the present study,

1.2. OBJECTIVES OF THE STUDY

The proceeding sections have pointed out the two current major trends the on-going globalisation processes that has made the world function as one economic unit, and the changes taking place in Tanzania starting with the Ujamaa period to the current era of the economic liberalisation. Following changes in both the world and Tanzania, this study aims at investigating how people have been affected and reacted in order to cope with these changes. This study focuses on the Matengo of Mbinga District, one of the major coffee producing areas located in one of the remotes areas of Tanzania. The Matengo farmers have been reported to continue practising their farming systems, that is, combination of indigenous *ngolo* cultivation for food crops and coffee cultivation fur cash.

Therefore, the decrease of income from coffee which once supported *ngolo* cultivation, necessitates the need for a study on the current status of the coffee economy and its linkage with other components of the livelihoods of the Matengo. Compared to Kilimanjaro, which used to be the biggest coffee producing area, little has been researched and documented on changes taking place in Mbinga and how farmers have been affected and reacted to these changes. While there has been substantial research done on the indigenous farming systems of the Matengo (Shimmied, 1989; Kato, 2001; Nindi, 2004) and information from a study project entitled "Integrated agro-ecological research of the Miombo Woodlands" (JICA 1998), most of the information documented has been on the socio-economy, natural resources and technological aspects of the indigenous farming systems of the Matengo. Problems related to coffee cultivation and marketing, following economic liberalisation, as well as farmers coping strategies, have not been researched on in depth. This study, a continuation of the previous studies on the indigenous agricultural systems of the Matengo people, aims at filling the existing knowledge gaps on farmers coping strategies following the introduction of a free market system in Tanzania.

Therefore, the general objective of this study was to investigate the effects of changes brought by economic liberalisation to a rural economy that depends on coffee as source of income and how Matengo farmers in Mbinga have adjusted themselves to cope with the said changes. The study attempts to first of all, describe and analyse the changes in policies related to the coffee industry in Tanzania in general and Mbinga District in particular; and secondly, to identify and describe the roles and contributions of the stakeholders of the coffee industry in Mbinga, including the district agriculture office, primary societies, private coffee buyers, farmers groups, and NGOs, and thirdly, to analyse the effects of economic liberalisation on coffee farmers and examine farmers coping strategies.

1.3. STRUCTURE OF THE DISSERTATION

This dissertation is divided into seven main chapters. Chapter one presents the background of the study and research objectives. It starts with a very brief review of the history of the policies from Ujamaa-type African Socialism to the recent economic liberalisation. Chapter two describes the farming systems based on agro-ecological zones and outlines the livelihoods of the Matengo. Furthermore, it covers the migration process among the Matengo, the rationale for selection of research sites and research methods. Chapter three reviews the coffee marketing system in Tanzania from the colonial to the present time. It chronicles the introduction of economic liberalisation and how it has affected coffee marketing to date. In chapter four, we presents the impact of economic liberalisation in Mbinga District by outlining reasons for collapse of the cooperative union as well as effects of dominance of the private coffee buyers. Main stakeholders of the coffee industry in Mbinga are identified and characterised. Lastly, it illuminates and discusses conflicts of interests among the district officials, whether to support farmers' groups or to strengthen the primary societies. Chapter five gives account of the current situation of the coffee industry in Mbinga. It identifies reasons for the decline of production and problems in coffee cultivation. It also explores the emerging coffee related business in the villages by identifying and categorising the main actors. In addition, chapter five presents and discusses steps taken by actors in the coffee industry to improve coffee quality and productivity, as well as financial management among the coffee farmers. Chapter six identifies and discusses the strategies employed by coffee farmers in Mbinga to stick with coffee cultivation despite decreasing coffee income and increasing costs of production. Changes in the farming systems are also discussed. Chapter seven, the last one, is on the conclusion and recommendations made by this particular presentation.

CHAPTER TWO: OVERVIEW OF THE STUDY AREA

2.1. INTRODUCTION

This chapter presents an overview of the study area and is divided into seven major sections. Section 2.1 delineates the main sections discussed in the chapter. Section 2.2 introduces the profile of Mbinga and a brief history of the Matengo people who are the focus of this study. Specific features that are presented and discussed in this section include location, population, origin and settlement patterns. The history and development of coffee cultivation in Mbinga district is presented in section 2.3. While section 2.4 dwells on the farming system of the Matengo, as practiced in three agro-ecological zones in Mbinga. Section 2.5 touches the migration trends of the Matengo pointing out that the migration is both seasonal and permanent. In addition, it presents how population expansion in the Highland areas has influenced migration patterns among the Matengo. Finally, sections 2.6 and 2.7 discuss the reasons for selection of research sites and methods used for data collection and analysis respectively.

2.2. DESCRIPTION OF MBINGA DISTRICT AND THE MATENGO PEOPLE

This section presents basic information on Mbinga district and its inhabitants the Matengo people. It starts by presenting the location, population and ethnic groups living in the district. Besides, it also gives the historical development of *ngolo* cultivation system and settlement patterns among the Matengo.

2.2.1. Location

Mbinga district is among the five districts of Ruvuma region, others are Namtumbo, Songea Urban, Songea Rural and Tunduru. The district is located roughly between 1005 and 1205 South of Equator and between 3405 and 3505 east of Greenwich, in the South Western part of Ruvuma region, (see figure 2-1.) During the British colonial period, Mbinga was a part of Songea district, with the headquarters in Songea town. It became an autonomous district, following the formation of Ruvuma region in 1964.

Mbinga shares borders with Ludewa district in Iringa in the north, Malawi in the West, Songea district in the East and Mozambique on the South (Ringo, 1995). The district has an area of 11,396 km2 that is 17.8 percent of the total area of Ruvuma region (64,233 km2). Distribution of the total land area according to main physical features indicates that arable land covers 5,891 km2 (52.0 percent); water mainly the Lake Nyasa cover 2,979 km2 (26.0 percent), while miombo woodlands and forest reserves occupy about 2,526 km2 (22.0 percent) However, 85.0 percent of the land is suitable for agricultural and animal husbandry (Rutatora, 1999). Administratively, the district is divided into 6 divisions, namely Mbinga Urban, Mbuji, Luhekei, Namswea, Mpepo and Ruhuhu. The divisions are in turn divided into 37 wards, 181 registered villages and 69,674 households (Mbinga District Council, 2001).

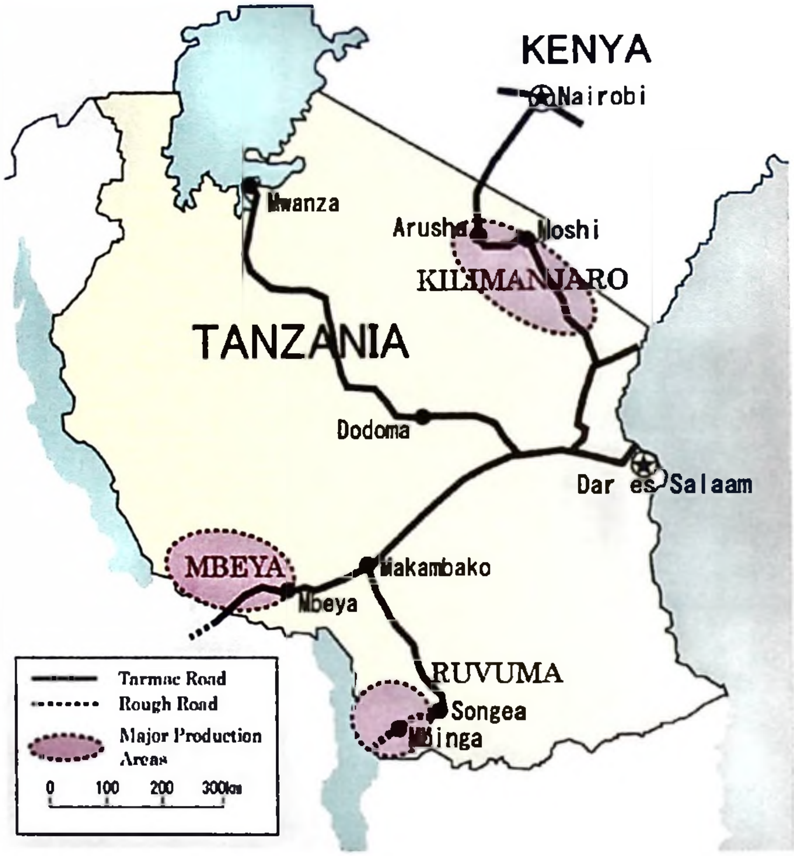


Figure: 2.1. The Map of Tanzania showing location of Mbinga District

2.2.2. Ethnic composition and population

There are 5 ethnic groups in the district. These are the Matengo, the Nyasa, the Ngoni, the Manda and the Mpoto. The major ethnic group is the Matengo, who account for over 60 percent of the population and is mainly found in Matengo Highlands and a few in the lowlands. The main economic activity of the Matengo is farming, especially the cultivation of coffee, maize and beans. The Nyasa, the Manda and the Mpoto are found along the Lake Nyasa shore and their source of livelihood is fisheries. The Ngoni are the minority and are found in the lowlands of Mbinga urban, Namswea and part of Mpepo division. The Ngoni are agriculturists whose economic activities include cultivation of maize, beans and cashew nuts (Ringo, 1995; Rutatora, 1999).

The population of Mbinga district is unevenly distributed, with highest concentrations in the Matengo highlands (ICRA, 1991; Nindi, 2004). Population concentration in the highlands areas is partly attributed to, among other factors, good weather and prospects for coffee cultivation. Furthermore, the Matengo highlands are the earliest settlement of the Matengo people and, over the years, their population has increased due to good weather and absence of diseases such as malaria. According to the National Population Census of 2002, the district population was 404,799, out of which 198,403 (49.1 percent) were men and 206.396 (50.9 percent) women, which depicts a slight difference between two genders (URT, 2002).

Table 2.1 Trend of population growth of Mbinga district

Year	Sex	Population	Total	Growth rate percent
1967	Male	67,029	144,049	-
	Female	77,030		
1978	Male	94,047	196,167	3.2
	Female	104,120		
1988	Male	132,735	271,845	3.4
	Female	139,110		
2002	Male	198,403	404,799	
	Female	206,396		

Source: 1967, 1978, 1988 and 2002 Population Census, Government of the United Republic of Tanzania, Government printers, Dar Es Salaam.

According to the 1978 and 1988 Population Censuses, the population growth rate increased from 3.2 percent in 1978 and 3.4 percent in 1988. Furthermore, the 2002 Population Census indicates a population increase from 271,845 in 1988 to 404,799 in 2002, as indicated in table 2-1 (URT, 2002).

2.2.3. Matengo people

The Matengo are of Bantu stock, commonly referred to as the "people of the woods". The name Matengo is derived from the vernacular word '*itengo*' which means a dense forest. It is assumed that dense forests initially covered Mbinga District before the land was subjected to intense cultivation (JICA, 1998). The Matengo have been described as industrial farmers who practice an intensive type of agriculture by digging pits into steep mountain slopes. In addition, the Matengo depend on a monoculture economy, particular coffee cultivation which is their major source of income and livelihoods (Basehart, 1972).

2.2.4. Settlement patterns

The settlement pattern and the political structure of the Matengo have evolved, essentially, from the need to survive in a harsh ecological setting, intercultural conflicts and competition (Hill, 2001). Oliver and Boyd (1965) and Stenhouse (1944) in their accounts of Matengo settlement have indicated that the present settlement pattern is a function of constant raids by the Ngoni and the slave traders. The raids drove the Matengo into the highlands to settle in caves for defence reasons as well as escaping from slave traders. In order to survive in the hills and the harsh environment, the Matengo had to evolve a method of avoiding the raids as well as good agricultural system that would preserve and protect the soil from erosion. It was from this challenge that they evolved a method of cultivation that is characterised by crop rotation, maintenance and conservation of soil fertility and prevention of soil erosion. This unique and famous method of cultivation along the steep slopes came to be known as *ngolo* cultivation.

The Matengo have, for many years, lived in a communal setting, where people collaborated in several socio-economic activities. Similarly, the Matengo practice a custom of patrilineal extended family system that lived on and cultivate one interfluve, a spur between one mountain stream and another termed *ntambo* (Kato, 2001). As a geographical unit, *ntambo* refers to a unit on the mountainside that is circumscribed within the river tributaries (JICA, 1998); or as a socio-ecological unit that shapes the unique pattern of land use and socio-economic organization among the Matengo. Researchers have established that the length of the *ntambo* ranges from 100 to 600 metres with an area ranging from 10 to 70 hectares. The villages and sub-villages among the Matengo were also established through the *ntambo* system (JICA, 1998). The social organisation of the Matengo shows uniqueness in the process of settlement and development of the *ntambo*. During the settlement and development of the *ntambo* in old villages, people who were related settled in the same *ntambo*. It has been observed that, *ntambo* is occupied by minor patrilineal or extended family (Schmied, 1989; JICA, 1998). This explains the reason why people in the same *ntambo* are closely related. For example, the Komba clans of Kipololo *ntambo* of Kitunda in Kindimba village share the same ancestors who were the first inhabitants of Kipololo *ntambo*. However, recently, some commercialisation of land caused by villagers who have migrated to other areas has resulted to the settlement of people in the same area who are not closely related.

Matengo men lived in their father's compound, while married women had to leave their parent's homes to join their husbands. The marriage system among the Matengo is both monogamous and polygamous although most of the Matengo are followers of the Roman Catholic Church, which advocates monogamous marriages. There is thus the co-existence of both traditional and Christian marriages and values among the Matengo.

The settlement pattern and coffee cultivation among the Matengo are among the reasons that exempted the Matengo from the villagisation exercise that was carried by the Tanzania government in the 1970s. Scott (1998) mentioned economic and political reasons that excluded certain areas from villagisation by citing examples from Kilimanjaro and West Lakes regions: populous villages, cultivation of cash crops which was crucial for foreign exchange and then economy of the country, and representation of the areas among the bureaucratic class. Taking the argument from Scott, Mbinga district has two features, which excluded it from forceful villagisation, first production of coffee that is crucial for state revenue and foreign exchange, and secondly, the settlement pattern of the Matengo, where people have settled in populous permanent villages since colonial times. The last section presented the descriptions of the Matengo people and their settlement patterns. The following section will present the historical origin of coffee cultivation and the reasons for its introduction.

2.3. HISTORY OF COFFEE CULTIVATION IN MBINGA

2.3.1. Reasons for introduction of coffee

One of the important events in the history of the Matengo in the 1920s was the introduction of coffee. There are so far three reasons given as to why coffee was introduced by the colonial government in Mbinga. First, it has been argued that coffee was introduced among the Matengo in order to curb the effects of the 1929 Great Depression that shock the world economy. The 1929 Great Depression was the direct result of the First World War. As such, the colonies were required to increase production of raw materials in order to boost the economies of their mother countries. In Tanzania, the Great Depression eroded the price of sisal, which resulted into the reduction of wages of plantation workers thereby worsening the living condition of sisal labourers (some of them were Matengo from Songea). Thus, the colonial government had to think of ways to raise capital within the Songea district (Kapinga, 1985). This was done by the introduction of coffee cultivation in the Matengo chiefdom and tobacco in the Ngoni chiefdom. Coffee was thus introduced in the British colonies such as Tanzania, Kenya and Uganda in order to expand cash crops exports and to boost the colonial economy (Mpangala 2000).

Second and as Kapinga (1985), Mpangala (2000) and Hill (2001) argue, coffee was introduced in Mbinga in order to reduce the migration of the Matengo men. During the German colonial rule, Songea district was a labour reserve and as a result, Matengo men migrated to the coastal areas to work in the sisal plantations as labourers. The trend of migration was also motivated by the lack of cash crop that would enable the Matengo earn money to pay poll tax. Therefore, the introduction of coffee was seen as the only alternative solution that would off set the migration of Matengo men who would now settle and cultivate coffee and pay poll tax to the colonial government. All in all, the introduction of coffee cultivation in Mbinga, like in other areas of Tanzania was not aimed at assisting the African grower economically, but rather aimed at exploiting the resources of the colonies for the benefit of the colonisers (Mpangala, 2000). Unlike in other areas such as Kilimanjaro and Arusha, where coffee was grown by settlers the colonial; government encouraged, African growers to grow coffee because of limited interest among the settlers to establish estates in the area (Kapinga, 1985). Probably, the remoteness of the Mbinga, lack of reliable communication to and from other parts of Tanganyika can also partly explain why settlers were not attracted to Mbinga.

Third, is that the introduction of coffee cultivation can also be attributed to lack of the stable income to pay for poll taxes among the Matengo, good climate and fertile soils. Ndunguru (1972) and Schmied (1989) assert that the British colonial administration introduced coffee in order to boost the ability of the Matengo people to pay poll taxes. Prior to the introduction of coffee in Matengo, the Songea District Commissioner complained to the Paramount Chief Makita Kipwele about the inability of the Matengo to pay their taxes compared to their neighbours, the Ngoni. The statement by the DC is attested by data contained in figure 2-2 that shows the different trend in the levels of payment of both hut and poll taxes among the Ngoni, Matengo and Nyasa in 1927/28-1930/31.

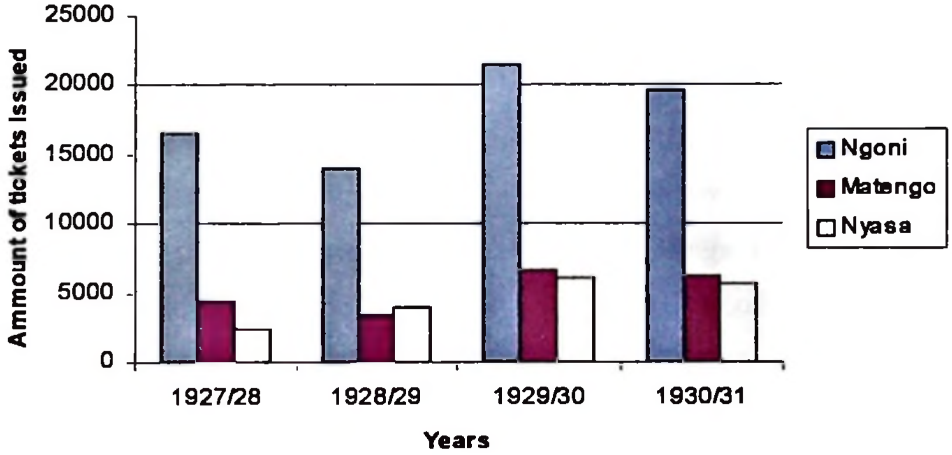


Figure 2.2 Hut and Poll Taxes among the Ngoni, the Matengo and the Nyasa
Source: Songea district records, 1933.

Figure 2.2 indicates the trend of collection of poll and hut taxes in Songea district. Furthermore, it indicates that the contributions of the Ngoni were greater than those of the Matengo and the Nyasa. The difference could be explained by the proximity of the Ngoni to the colonial administration and to Songea town, which facilitated the availability of income for the payment of taxes.

Chrisostomus Makita cited examples from Moshi and Tanga to show why the ability of the Matengo to pay taxes is lower than the Ngoni. Makita was Secretary to the Paramount Chief of the Matengo and travelled to Moshi and personally witnessed the manner in which the Chagaa people grew coffee. He also learnt of how, in Tanga, people worked on sisal plantations to get money to pay the taxes. He was of the opinion that, the Matengo had neither jobs like their neighbours the Ngoni, nor income that would assist them to pay the poll taxes. However, given their good soils and climate, the Matengo could en earn cash income to pay their taxes without problems if they got seeds and started the cultivation of coffee (Haule, 1973). The colonial government thus ordered coffee seed from Moshi and directed agricultural officers to distribute the seed to headmen (*majumbe*). A substantial amount of the seed was taken by Makita himself who established a nursery at his natal village, Myangayanga (Schmied, 1989). Different from other areas, the colonial government encouraged coffee cultivation in Matengo through African small holders. This was unlike Kilimanjaro and Arusha, where the settlers introduced coffee cultivation, and where, initially, African growers were not allowed to grow the crop.

2.3.2. Development of coffee cultivation among the Matengo

Later on, many people got interested in growing coffee, despite their limited knowledge on how best to grow and manage coffee production. It was soon decided that one person with knowledge on coffee management should be recruited to supervise the introduction and development of coffee in other parts of Matengo. Illife (1979) named Makita as the Matengo who supervised the development of coffee cultivation in Mbinga. He gained some experience in coffee cultivation in Moshi, and was seen as an ideal candidate for the job among the Matengo. The Paramount Chief agreed to release Makita from the post of Secretary and he was given the task of initiating and supervising coffee nurseries, distribution of seedlings and development of coffee cultivation in Matengo chiefdom. He volunteered and made sure that coffee spread in other parts of Matengo as fast as possible. His son, Mr. Kimondo Makita of Myangayanga explained how he witnessed his father returning home with presents such as chicken given to him by the people as sign of appreciation of his services in the places he had visited to mobilise people to grow coffee (interviews at Myangayanga village, on 21/10/2002).

Between 1928 and 1929, three coffee nurseries were established at Myangayanga, Mahenge and Litembo areas. Others were later on established at Pilikano and Litembo. Initially, coffee nurseries were established at sites of a few selected farmers such as Mathius Komba of Pilikano and Kilian Mpwata of Litembo who were thought to be innovative and respected by the people. It was expected that other farmers would copy from such `successful farmers` (interviews with Mr. Constantine Bendabenda Kinunda, at Litembo village on 13/10/2002).

Cultivation of coffee in Mbinga started with eight farmers in 1929 and by 1935 the number had increased to 23 with about 9,367 coffee trees (Schmied, 1989). By the end of 1932, the first crop was harvested and sent to Europe to be tasted. The results proved that coffee produced in Mbinga was of high quality, and thereafter, coffee spread slowly to other places in Matengo including Pilikano, Litembo, Walanzi (Kindimba) and Mhagawa. Table 2.2 indicates the diffusion of coffee cultivation among the Matengo. It can be deduced from the table that coffee cultivation started at Myangayanga, probably because it was the headquarters of Paramount Chief and that, Chrisostomus Makita also lived in Myangayanga which made it easy for him to share his knowledge with people in his natal place.

Table 2.2 Dissemination of Coffee Cultivation in Mbinga

Village and year	**1929**	**1930**	**1931**	**1932**	**1933**	**1934**	**1935**	**No of trees**
Myangayanga	6	6	8	8	22	22	72	2,954
Lipumba	2	2	3	3	5	5	8	79
Walanzi (Kindimba)	0	1	1	1	1	3	44	2,124
Litembo	0	0	1	1	6	8	51	3,338
Pilikano	0	0	0	2	7	7	55	1,870
Total	**8**	**9**	**13**	**15**	**44**	**45**	**230**	**10,365**

Source: Schmied, 1989

The number of coffee growers in almost all villages increased during 1933-1935. Likewise, coffee cultivation was initially limited to only those who showed capabilities of maintaining the crop and later on, all farmers were allowed to cultivate coffee (Ringo, 1995). In 1933, a few farmers from Kindimba village, who were hard working, famous, respected by the people and capable of taking care of the coffee seedlings, were selected and given coffee seedlings to grow. Some of the selected villagers were Kirian Kitumbi, Wenderin Kapinga, Kasian Lupembe, Idelfonce Komba, Alfonse Lulanga, Mathius Kawanila and Kapingu Muhewanga. Each of them was given 30 seedlings as an initial experiment (interviews with Mr. Emmanuel Komba, 28/10/2002). As such, coffee cultivation started with the so-called prospective farmers so that other farmers could learn from the former, thereby, reducing the costs that could have been incurred by the British colonial government in supervising all coffee growers. Coffee grew very well and seeds were distributed to a few selected farmers who met some conditions. Prospective farmers were required to be taught the techniques of planting and taking care of coffee shrubs before being supplied with seedlings. Furthermore, their prospective coffee farms were to be located in areas with adequate supply of water. Coffee seedlings were also to be planted in small pits/holes of between 30–40 centimetres in width and depth respectively (Makita, 1965). Although seedlings were supplied free of charge, the colonial government did not allow a single farmer to get more than 100 seedlings. The number of seedlings given to a single farmer was limited in order to make sure that, coffee growers had acquired enough knowledge of growing coffee before they were given more seedlings. The elders of Litembo also attested to the fact that coffee growers were not allowed to plant more than 100 coffee seedlings, without proving their capability of maintaining them (interviews with Mr. Hussein Masikini and Sabastian Ndimbo at Litembo on 23/10/2002). Thus, it will be noted that even during the introduction, ability of a coffee grower was an important criterion that determined one's qualifications for growing coffee. Later on, however, farmers were encouraged to cultivate coffee, regardless of their ability and this, coupled with limited agricultural inputs, has probably contributed to the spread of pests and diseases.

Although the Matengo people were quick to accept coffee cultivation, it, however, took time before farmers learned how coffee cherries could be processed to parchment. From the local stories given by elders in Litembo village, farmers did not know how to process it. However, since coffee cherries contain sweet juices, villagers developed interest of sucking it just like any other fruit, ending up with coffee beans. The problem of labour during the initial stages of processing was somehow solved because many people were attracted by its sweetness and volunteered to suck it. Coffee cherries were processed by chewing and later grinded in pots *(vyungu)*.

2.4. FARMING SYSTEM AND AGRO-ECOLOGICAL ZONES

2.4.1. Farming systems

As pointed out earlier on section 1.2 the basic feature of the Matengo farming system is a combination of coffee cultivation and *ngolo*, livestock keeping mostly pigs. *Ngolo* cultivation is practiced mainly in the steep sloping areas of Matengo Highlands and the main food crops grown are maize, beans, wheat and cassava. *Ngolo* cultivation or Matengo pits, which are well arranged over the whole field, is a unique farming system for soil conservation in the mountainous land which experience high rates of soil erosion (Itani, 1998). It is a grassland fallow system with combination of two crop rotation system, composed of maize and bean. *Ngolo* is essentially a tied ridge system with strict crop rotation aimed at ensuring that during heavy rains, water is trapped in the pits and seeps into the ground which in turn minimises water run-off and soil erosion (Mattee, 1996). *Ngolo* cultivation has an advantage of maintaining soil erosion, soil fertility which has insured high productivity.

Before the economic liberalisation, the Matengo obtained agricultural inputs on loan and thus, coffee supported *ngolo* cultivation through purchasing of agricultural inputs. However, after the liberalisation of economy and coffee marketing, the prices of agricultural inputs have increased while the revenue from coffee has decreased. Thus, with increasing costs of production, coffee revenue could no longer support *ngolo* cultivation and resulted to shortage of food. The Matengo coffee farmers have reacted by strategies that have led to changes in the farming system (subject matter of chapters 5 and 6). Although the prices of coffee have been declining in recent years, coffee is still the major source of income of the people.

2.4.2. The Major Agro-ecological zones of Matengo Highlands

Mbinga District is divided into three agro-ecological zones namely Matengo highlands, lower plateau and lakeshore. Farming system among the Matengo is strongly influenced by the agro-ecological zones in the district. However, this study covered the Matengo highlands zone alone and which is the focus of this study (see figure 2.3). The Matengo highlands are divided into three sub-zones namely mountain area, Hagati plateau, and the North and South Rolling Hills. This section will describe each of these sub-zones in turn.

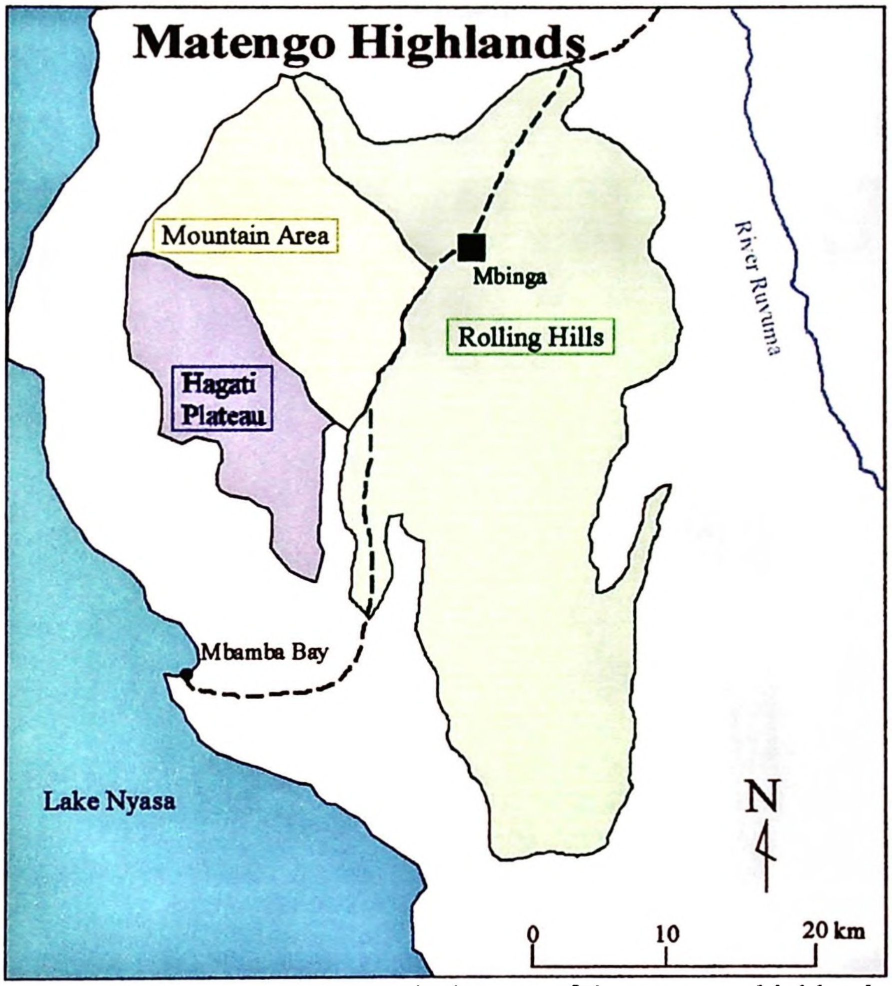


Figure 2.3 Agro-ecological zones of the Matengo highlands.

The first zone, the mountain area, is the most densely populated zone in the Matengo highlands with around 100-200 people per square kilometre (DALDO, 2001). It is characterised by strongly dissected mountains and narrow valleys where the elevation ranges from 1400 to 2000 metres above sea level (MDC, 2001). It is presumed that the original vegetation of the mountain areas were Montana forests which, except for a small forest reserve, have been almost completely destroyed by human activities such as cultivation, grazing and settlement. The existing potentials for agricultural related activities and concentration of population have made the mount' (Rutatora, 1999). The high altitude of the mountains favours the cultivation of Mild Arabica coffee, although maize, beans, wheat and finger millet are also produced. As a result, this area is central to the functioning of economy as well supporting the livelihoods of most of the Matengo people.

The second sub zone, the Hagati plateau, is a dissected plateau with an average elevation of 1500 metres above the sea level. It is located between the mountain zone and an escarpment facing down to the Lake Nyasa shore zone. The plateau has shallow and yellow soils that have been formed from granite which is good for crops cultivation. It is estimated that more than 80 percent of the land in the plateau is under cultivation (Rutatora, 1999). The presence of moist clouds which are formed from the lake between May and August, extend the growing season up to nine months. This is favourable for the production of coffee maize, beans, finger millet, wheat and sweat potatoes.

Photo 2.1 *Ngolo* and coffee cultivation at Kindimba village, highland areas

The third sub zone, the Rolling hills are the largest agro-ecological sub-zone in the Matengo Highlands with an elevation which lies between 1,100 metres to 1, 400 metres above sea level. The Rolling Hills area is used for agricultural activities such as cultivation of coffee, maize, finger millet, sweat potatoes, beans, wheat and tobacco, with the remaining area being covered by wooded grasslands, de-graded miombo woodland and Eucalyptus plantations situated on top of denudated hills. Likewise, the sub zone has wooded grassland and secondary miombo woodlands. These rolling hills are characterised by flat valleys which are easily discernible in the new settlements such as Kitanda, Lupilo and other villages. Cultivation methods include Matengo pits and ridge cultivation for maize and beans. Thus, the livelihoods of the people in this area depend on mixture of coffee production and food crops, mostly maize and beans that have also been commercialised (Rutatora, 1996).

From the proceeding discussions, it is now apparent that the Highlands form the core area for agricultural activities in Mbinga. Although the Matengo cultivate different types of food and cash crops, coffee is however, the main cash crop that has for many years been the major source of income for the farmers. In 2001, it was estimated that there were 34,523 hectares under coffee cultivation (DALDO, 2003). As such, coffee cultivation is still important to the livelihoods of the people who live in the three agro-ecological zones.

2.5. INCREASED PRESSURE ON LAND AND MIGRATION AMONG THE MATENGO

Increasing population and shortage of land, fragmentation of land among the Matengo were noted soon after the Ngoni raids (Basehalf, 1972). As pointed out in section 2.2.4, most of the Matengo settled in the Highland zones to avoid capture by the Ngoni and slave traders. Over time, the capacity of the Highlands zones to support the livelihoods of the Matengo decreased as pressure on available land increased. The introduction of coffee cultivation among the Matengo led to increased fragmentation and shortage of land. Coffee cultivation not only brought wealth to the Matengo, but also changed the land tenure system from communal to individual ownership. As such, change of ownership of land increased both the value of and demand for land especially for coffee cultivation (Hill, 2001). Traditionally, land was owned communally and had the functions of ensuring the survival of the community. The introduction of the coffee economy, however, led to commercialisation of land and made it profitable only to individual families or households (Rutatora, 1996; Hill, 2001). Increased commercialisation of land and population pressure in the Matengo highlands has also led to fragmentation of agricultural land so that it can be equally distributed among sons (Schmied, 1988).

As the years passed, demand for land for coffee cultivation in the highland areas also increased thereby reducing land that would have been used for the support of other livelihood activities. Araki (1985) found out that Matengo farmers were still interested in coffee cultivation and that expansion of coffee cultivation was done at the expense of land available to grow food crops which have to be cultivated at distance farms.

Thus, with increasing coffee cultivation, the amount of land left for cultivation of food crops decreased to the extent that some of the farmers have been forced to migrate from the highlands to the lowland areas, in search of suitable areas for growing food crops, including maize and beans (Rutatora, 1996).

The migration trend among the Matengo is both permanent and seasonal. The direction of permanent migration is from the natal village, mostly in the Highlands zones, to another village usually in the lowland areas. Permanent migration among the Matengo is thus a reaction to land shortage. It is also mostly young men who migrate permanently to other villages where they hope to have enough land for themselves and their children (ICRA, 1991). On the other hand, Seasonal migration among the Matengo has been described as a dual residency strategy. It involves established farmers who have failed to increase size of their land in their natal villages in the highland areas who migrate seasonally to the lowland areas to cultivate food crops and return to their natal village after harvesting (ICRA, 1991; Rutatora, 1999; Nindi, 2004). Thus, shortage of land in the highland areas has forced people to resort to migration as a strategy of reducing pressure on land but still increasing availability of food crops. However, the migration pattern of the Matengo is unique when compared to other areas that the direction of the migrants is still within the Mbinga district. This is attested by two studies carried out in the area. For instance, a study conduced by ICRA in 1991 has shown that migration of the Matengo from the high populated areas took place within Mbinga district. Another study carried in 2001 at Kindimba village located in highlands, among the 186 non-resident members, 175 lived within Mbinga district, 4 lived in Songea, and only 7 were out of Ruvuma region (SCSRD, 2001). Thus, the results of the two studies also indicate that there is still available land for the Matengo to utilise for crop cultivation and other income generating activities.

2.6. SELECTION OF RESEARCH SITES

The preceding sections presented the three agro-ecological zones and how they have influenced the farming systems and migration of the Matengo people. This section gives a brief description of the agro-ecological characteristics of the two villages and why they were selected for this study.

2.6.1. Selection of the study villages

This study focused on two villages that are located in different agro-ecological zones for purposes of comparison. Kindimba village was chosen to represent the Highland areas. It is located in the Matengo highlands and is one of the old villages in Mbinga, with a long history of coffee cultivation. In spite of slumping of prices, coffee is still an important source of income for people in the village. Kitanda village, on the other hand, is located in the lowland areas. It was therefore selected to represent the lowland areas. It is a recently settled village, founded by immigrants from the highland areas and has a short history of coffee cultivation. Dependence on coffee in Kitanda is not very significant since villagers have alternative means of livelihoods from food crops (Rutatora, 1996; Nindi, 2004). Therefore, these two villages situated in different agro-ecological sub zones were selected in order to investigate the farmers coping strategies as a consequences of the fluctuating returns from coffee production. The histories, location, and sources of income in the two villages (see figure 2-5) were expected to indicate the degree of dependence on coffee as well as difference strategies employed by villagers to sustain coffee cultivation.

(b) Economic Activities

Agriculture-related activities are the main source of income of the people. Food crops grown are maize, beans, cassava and banana, cultivated both *ngolo* and ridges. Selling of food crops is an important source of income among the villagers (Rutatora, 1996). Likewise, vegetables cultivation, both in the valley bottom and uplan, is an important source of income, especially in Nsenga A and B sub-.villages. Vegetables are marketable both within the village and in Mbinga town. Coffee cultivation is another source of income for people in the village. Coffee farms are located close to the homestead (home garden).

Kitanda village has a short history of coffee cultivation as compared to Kindimba. The data from DALDO indicates that only 20 percent of coffee produced annually in Mbinga district comes from lowland areas, including Kitanda village. As such, coffee production in the lowland areas is still low. This might probably explain why Kitanda village does not have an independent primary society and is instead covered by KIMULI primary society which covers eight primary societies, including Kitanda. Livestock keeping is another important economic activity in the village. Common types of livestock that kept include pigs, goat, cow and chicken. The village has enough grazing land and pasture and as such, goats and cows can be grazed on plateau which has enough fallow grass (Nindi, 2004). Selling of livestock, mainly pigs is an important source of income to the villagers. Pigs can be sold within the village or to middlemen who come to the village from Mbinga town.

2.6.2.2. Kindimba Village

(a) Location, population and administration

Kindimba village is situated in the mountain areas of the Matengo Highland zone, and is among the oldest villages in Mbinga. It is located 15 kilometres west of Mbinga town, saved mainly by unpaved (earth) road that goes to Litembo and Lituru villages located in the Matengo highlands.

The 2002 Population Census indicated that the village has 2,288 inhabitants. Sex-wise, there is a slight difference with 1167 (51 percent) females and 1,121 (49 percent) males. Data from the Village Executive Officer (VEO) indicates that the village has 535 households. The village is composed of eight sub-villages namely Walanzi, Kitunda A, Kitunda B, Torongi, Mtungu, Ndembo, Mkanya and Kindimba. Shortage of land in the village has forced most of the residents to own and manage farms out side the village. Nindi (2004) reported that more than 50 percent of all households in Kindimba own and managing farms in other villages, mostly in the rolling hills and lowland areas such as Kikolo, Kizuka, Masimeli, Utiri, and Kigonsela villages.

(b) Economic Activities

Agricultural related activities are major sources of income among the villagers. The *ngolo* farming system is used for cultivation of food crops mainly maize, beans, cassava and wheat. Besides, vegetables, sugarcane, maize and beans are cultivated in the valleys bottom during the dry season. Livestock kept by the villagers are mostly pigs, cattle, goats and chicken. Selling of pigs is an important source of income to the villagers. Other sources of income include selling of local brew (*ngelenge* and *mbege*), and wage labour. Coffee cultivation is the main source of income of the villagers. Coffee farms made up of bench terraces or flat seedbeds are located close to the homestead, (Nindi, 2004). It is a common practice in Kindimba village to intercept coffee with banana and *grevillea robusta.* While banana is source of food and cash income, *grevillea robusta* can be used for house construction, firewood or sold in a form of timber. Kindimba village has a long history of coffee cultivation and cooperative movement. The first person to establish a nursery and cultivate coffee in Kindimba village is Herrick Limka who lived at Walanzi sub village. Limka, who was an agricultural officer, was seen as the ideal person to influence distribution of coffee in Kindimba village. Likewise, Ngaka was the first primary society in Mbinga. Ngaka was named after the river Mngaka, which flows through Kindimba village.

2.6.3. Selection of the Ntambo/Mtaa

The two villages used different terms in describing their patterns of settlement and social geographical units. Kindimba village, located at Matengo highlands with steep slopes referred to patterns of its settlement as *ntambo*, while Kitanda village located at lowlands areas, referred as *mtaa*, (Nindi, 2004). Selection of the specific areas in the villages was guided by either presence or absence of livelihood activities in the sub-villages as indicated in table 2-3.

Table 2.3 Villages, sub villages, *ntambo/mtaa* and their main features

Village Name	Sub village Names	Names of the Ntambo	Characteristics of the ntambo/sub villages
Kindimba	Kitanda A	Kipololo	Combination of coffee, *ngolo* farms and income generating activities
	Walanzi	Makata	Presence of income generating activities, valley bottom cultivation, *ngolo* and coffee plots
	Ndembo	Mapelele	Agricultural oriented with few income generating activities
Kitanda	Nsenga B	Nsenga A	Presence of both agricultural and business oriented activities such as area petty trade (selling of vegetables in Mbinga town)
	Muungano	Lusewa	Agricultural oriented activities: presence of coffee plots, maize and beans plots and valley bottom cultivation.

This study also aimed at investigating strategies adopted by farmers so that they would continue with coffee cultivation despite increasing costs of production. Therefore, areas with other non-income generating activities were targeted for investigation. Besides, areas that were agricultural orientated were selected to investigate strategies adopted by farmers to support coffee cultivation.

2.6.4. Selection of households

In this study, a 'household' is defined as the persons or members who are residing under one roof or under several roofs but, share the common source of food and answerable to the same head of household (Ekong's 1988; Foeken, 1997). Thus, the study regards members of a household as those who share at least one principal meal together. Selection of the household followed two processes; first all households in the *ntambo*, (except those absent during the interviews) were included in the sample of those interviewed. The following section explains the selection process of the households in the two villages.

In Kindimba village, three sub-villages were purposefully selected. Furthermore, in each sub village, one ntambo was selecte. A total of 52 households were selected from three *ntambo* (see table 2.4). The household interviews took place during the first phase of the research, between December 2003 and mid February 2004. In Kitanda Village, 54 households were randomly picked from Nsenga A and Muungano sub villages. Twenty-eight households were picked from Nsenga A and 26 were picked from Muungano sub-villages. Respondents from the sub villages were picked randomly to equalise with the number of respondents from of Kindimba village. At the end, a total of 106 households in both villages constituted the sample that was interviewed by using a questionnaire.

During the second phase of the research, (October-November, 2004), 31 households were selected from each village for in-depth study. This study aimed at investigating the changes that had occurred in the two villages after the collapse of Mbinga Agricultural Marketing Cooperatives Union (MBICU) in 1996, and farmers coping strategies to continue with coffee cultivation. The second selection deliberately avoided household members who were still living with their parents. It was assumed that those household members were still young and did not have enough experience on the impact of MBICU to coffee farmers. Added households were expected to give additional information regarding their experiences of coffee cultivation before and after economic liberalisation. The distribution of the households interviewed, and their respective villages as well as sub villages are given in the table 2-4.

Table 2.4 Distribution of respondents by villages

Village	Sub-village	Ntambo/ Mtaa	First sample		Second sample	
			Frequency	Percentage	Frequency	Percentage
Kindimba	Walanzi	Makata	15	14.3	8	53.3
	Kindimba	Mapelele	16	15.2	10	62.5
	Kitunda	Kipololo	20	19	12	60
Kitanda	Nsenga A		28	26.7	10	35.7
	Muungano		26	24.8	7	26.9
Total	**5**		**105**	**100**	**62**	

2.7. RESEARCH METHODS

A study of the changes of coffee marketing after economic liberalisation and farmers coping strategies requires both primary data from stakeholders in the coffee industry and secondary data from other sources. Besides, various methods of data collection were employed. This section explains duration of the research and methods used for data collection and analysis.

2.7.1. Duration of Research and Data Collection

Research on changes in coffee marketing after economic liberalisation and farmers coping strategies necessitated the researcher to collect both primary and secondary data. Primary data was collected from the farmers in the two villages through interviews with various actors of coffee industry in Mbinga. In addition, secondary data was collected from libraries, Internet, reports by government and Non Government Organisations (NGO). This study was carried out between October 2002 to November 2004 in Kindimba and Kitanda villages in Mbinga district. The researcher spent a total of 11 months in the two villages observing and interviewing farmers on matters relating to coffee marketing following economic liberalisation and the strategies used by farmers in the two villages so as to continue cultivating coffee. The household survey generated data on why and how households continue with coffee cultivation despite increasing costs of production and fluctuation of coffee prices. Besides, the researcher observed and collected information regarding income-generating activities employed by farmers in the two villages.

2.7.1. Methods of data collection

In order to understand the changes that have occurred in the coffee marketing systems after economic liberalisation as well as farmers coping strategies in order for them to continue with coffee cultivation, a combination of various methods was used for data collection from farmers and different stakeholders of the coffee industry in Mbinga. This study employed three methods of data collection namely: household surveys, interviews and case studies.

2.7.1.1. Household surveys

Household surveys were conducted with targeted respondents in households in Kindimba and Kitanda villages. Besides, other group of respondents were selected from Kindimba and Mkumbi villages, specifically to obtain information on factors which motivate farmers to sell coffee to certain buyers. The following section presents the two types of respondents covered during household surveys.

(a) Main Respondents

The household survey method was used to collect information from selected households in two villages. The researcher used open-ended questionnaires for data collection. Open-ended questionnaires were administered mostly to the heads of the households, although their wives and daughters were interviewed in case of the absence of the heads of households. Ding the first research phase, which took place between December 2003 and April 2004, questionnaires were administered to 106 households in the two villages. However, the number of households was reduced to 62 for in-depth study, which was conducted between October and November 2004. The questionnaires were used to collect information regarding farming systems, coffee cultivation, prices of coffee, availability and applications of agricultural inputs, harvesting and marketing of coffee, and reasons for continuing with coffee cultivation. Likewise, the questionnaires collected information on prices and income from coffee, alternatives sources of the livelihood both at the household level and in the village after decline of income from coffee, sources of labour at the household and the linkage between coffee incomes other livelihood activities of the villagers. Besides, information regarding participation of the households in off-farm activities and as well as cash income arising from those activities was also collected. During in depth study, the open-ended questionnaires were used to collect information regarding the changes in farming system, such as coffee cultivation, changes in the number of fields for food crops, increase or decrease in livestock keeping as well as how income from various sources is used. Likewise, it focused on the major changes that followed collapse of MBICU and reasons why the Matengo people continue to cultivate coffee despite all the odds against coffee production.

(b) Supplemented Respondents

During the research in Kindimba village, it was found out that despite the presence of Private Coffee Buyers (PCBs) and Agricultural Marketing Cooperative Society (AMCOS), most of the farmers had sold coffee to Ngaka Central Pulpery Unit (CPU). Thus, the trend of coffee marketing in the three *ntambo* of Kindimba village showed a different picture from the 2004/05 coffee marketing data collected from the District Agriculture office and the Mbinga Coffee Curing Company Limited (MCCCo Ltd). The trend of coffee marketing at the district indicated that PCBs had purchased more than 50 percent of the coffee. Consequently, it was felt that Kindimba was a very special case since farmers ware attracted by services offered by Ngaka CPU to which they sold most of their coffee. It was, therefore, felt necessary to increase the sample from other sub-villages that were located far from the Ngaka CPU to determine if location was important factor for selection of a coffee buyer. As a result, Mkanya, Kitunda B, Torongi and Mtungu were included in the sample. Eight respondents from each sub-village were picked randomly for interviewing, which increased the number of respondents from Kindimba to 32.

Furthermore, it was thought that a village with all marketing options, such as PCBs (for both cherries and parchment), AMCOS, and farmers groups would give a better picture of the reasons that motivate farmers to sell coffee to a certain buyer. Mkumbi village was selected because of presence of all actors in the coffee marketing process in Mbinga district namely; AMCOS that purchase parchment, PCBs that purchase cherries and parchment coffee and farmers' groups that collect parchment coffee. Respondents between the ages of 40-60 were randomly selected from four sub villages as follows; Litanda (4), Magingo (5), Mbande (7) and Mkumbi (6) to make the total number of 22 respondents. Open-ended questionnaires were used to collect information from added respondents on coffee marketing before the collapse of MBICU as well as marketing trends during the three coffee seasons from 2002/03 to 2004/05.

2.7.1.2 Interviews with key informants

The researcher employed semi-structured questionnaires during interviews with selected village leaders, elders, key informants and government officials. Three village leaders were selected from each village and asked questions on the state of the art as regards coffee cultivation in their respective villages (trends in coffee production and prices). Besides, village leaders were asked questions on migration patterns in their villages, changes which have taken place in the coffee sector and how they have impacted on the villagers and kinds and types of livelihood strategies adopted by the villagers.

In both Kitanda and Kindimba villages, key informants included the previous and present leaders of the village cooperative societies. In Kindimba village, three leaders were interviewed on the history of Ngaka primary society from 1960's to present. In order to understand the history of coffee cultivation in Mbinga district in depth, researcher interviewed elders in Litembo and Myangayanga villages, both located in the Highland areas. In both villages, the village leaders provided the researcher with lists of elders who could provide information as regards the history of coffee cultivation in the area. The final selection of elders done by the researcher was based on the age and knowledge of the elders on matters relating to coffee cultivation. Litembo was selected because it is believed to be the oldest settlement of the Matengo. Three village elders who witnessed the introduction of coffee were selected and interviewed. Myangayanga village on the other hand, was selected because it was the headquarters of the Paramount Chief and natal village of the Matengo who spearheaded cultivation of coffee. As such, three elders, including Makita`s son were interviewed.

Kitanda village, which is a new settlement, has a short history of primary societies. As such, two leaders of KIMULI primary society were interviewed on the history and activities their primary society. Both Kindimba and Kitanda villages have initiated rural financial institutions, which motivated farmers to save money in order to obtain loans, through Savings and Credits Cooperatives Societies (SACCOS). One leader from each village (a chairperson in Kindimba and a secretary in Kitanda) were interviewed. They provided information on their organisations, and link between SACCOS and coffee cultivation.

2.7.1.3. Case studies

Cases studies were used to collect information from villagers who are engaged in illegal coffee marketing, farmers who took loans from the illegal moneylenders and members of SACCOS in the two villages. The case studies were first, used to collect information from a sub agent and an agent in Kindimba and Mkumbi villages respectively. The two agents explained the nature of their activities and benefits accrued from engagement in illegal coffee marketing. Secondly, another three cases from experienced farmers from Kindimba villages who have participated in the illegal marketing of coffee *(magoma)* were also interviewed. The farmers explained what motivated them to take money from illegal moneylenders, how they used it, how they paid it back and penalties meted to those who failed to pay. Likewise, information was also collected from the experiences of SACCOS members from Kitanda and Kindimba villages respectively, on how they had obtained loans, how they utilised them and the benefits accrued from the loans.

2.7.2. Secondary data

Secondary data were collected from published and unpublished written or recorded sources. Selection of secondary data was based on their reliability, adequacy, suitability and relevance to the research topic as deemed by the researcher. Secondary data was collected from books and manuals from various libraries in Japan including Kyoto University. Beside, data from MA and PhD dissertations, books, and reports was collected from Universities of Dar Salaam and Sokoine in Tanzania. The data collected provided information regarding the history of the coffee industry in Tanzania, especially in zones that cultivate Mild Arabica coffee namely, Kilimanjaro, Mbeya and Ruvuma regions. Besides, secondary data provided information on livelihood strategies adopted by coffee farmers, after economic liberalisation. Data on the coffee industry in Mbinga was collected from District Agriculture Office, Mbinga Coffee Curing Company Limited (MCCCo Ltd) and the Tanzania Coffee Research Institute at Ugano Centre. Likewise, the researcher visited the headquarters of Tanzania Coffee Board (TCB) in Moshi, and collected additional data on the trend of coffee production and prices at both the local and international markets. Likewise, various documents on coffee industry such as Coffee Industry Acts; rules and regulation, strategies problems and prospects of coffee industry in Tanzania were collected, analysed and used by the researcher.

2.7.3. Data analysis

Data collected from the filed was coded using Ms excel spreadsheet, and analysed by descriptive statistics to obtain frequency, mean and percentages. The results were used in making tables and figures in order to find the relationship among the variables.

CHAPTER THREE: REVIEW OF COFFEE MARKETING IN TANZANIA

3.1. INTRODUCTION

In order to understand the current situation of the coffee marketing in Mbinga, we need to first of all review the coffee marketing system in Tanzania from the colonial times to the present and, secondly, to review the changes that have taken place in the coffee marketing structures over time and how they have affected the coffee farmers. This chapter, therefore, presents the historical evolution of coffee marketing in Tanzania from the colonial times to the present. The chapter is divided into two major sections. The first section deals with coffee marketing during the single marketing channel by giving historical reviews of coffee marketing from the colonial to the postcolonial periods. The second section deals with coffee marketing after economic liberalisation in Tanzania, which marks the shift from a single to multiple marketing channels. It covers the period starting with the liberalisation of the domestic coffee market to the subsequent changes that have been brought by the 2001 Coffee Industry Act. Furthermore, the chapter explores the degree to which frequent changes in government policy with regards to coffee marketing have affected the marketing structure and the livelihoods of the coffee farmers. This section also shows the linkage between coffee marketing and the distribution of agricultural inputs to farmers and how this linkage was broken by the liberalisation of the coffee market. In addition, the attempts to re-establish the link between the two are discussed. Finally, it presents the current situation of international trade of coffee and responses of coffee farmers in the three major Arabica producing zones in Tanzania.

3.2. COFFEE MARKETING BEFORE ECONOMIC LIBERALISATION

This section gives an account of coffee marketing systems in Tanzania before liberalisation. The historical analysis is also periodised as follows; during colonial times, post colonial period to 1976, 1976 to 1984 and period from 1984, when cooperative unions were re-established. The defining characteristic, during this time, was the predominance of the single marketing system, whereby the government controlled the marketing of agricultural commodities through marketing boards and crop parastatals.

3.2.1. Coffee marketing during colonial time

3.2.1.1. German period (1885-1919)

During this period, private agents and traders dominated the marketing of cash crops while the colonial government had little interest in controlling it. At the local level, the Asian Middlemen monopolised the marketing of crops from the farmers to the companies. Moreover, the branches of the European companies dominated the export of the crops. Below the Asian Middlemen were the African farmers, whose role was to produce coffee with a few Africans acting as sub agents (Coulson, 1982, Koporem, 1995). Africans were left out of the marketing systems probably, because the German colonial government did not involve itself into controlling the marketing of cash crops and left it to the companies and the Asian. Likewise, farmers, most of them with limited capital, were forced to produce raw materials for the colonial government, and thus, could not participate in marketing activities.

3.2.1.2. British period (1919-1961)

The marketing policies of the British colonial government can be understood clearly if periodised into two phases, before and after the Second World War. Unlike the Germans, the British Colonial government had direct interest in the marketing of cash crops and thus, designed a series of ordinances to control the process. Although cash crops were introduced in Tanzania before the 1930's, the first Cooperative Society Ordinance was introduced in 1932 (Kimario, 1992). The Ordinance registered cooperative unions, as sole agents for purchase all agricultural cash commodities including coffee from farmers which they sold to the European companies. Moreover, the ordinance controlled the dominance of the Asian Middlemen and replaced them with the limited number of farmer's marketing cooperatives (Hyden, 1973). Furthermore, during the period before the Second World War, the colonial government did not encourage the registration of cooperative societies, except for KNCU and Ngoni Matengo as such European companies controlled the marketing of crops (Ponte, 2002). As a result, the formation of marketing cooperatives was not meant for the benefits of the African growers, but rather, a function of the struggle by the colonial government against the increasing dominance of the Asian middlemen.

After the Second World War, the economic crisis in Europe forced the British colonial government to increase production and export of cash crops (Mpangala, 2000). Similarly, it established marketing boards in order to facilitate the marketing of major export crops as well as the supervision of activities carried out by cooperatives. In addition, is also the fact that in order to maximise the appropriation of the surplus products from the colonies, the marketing boards purchased crops from farmers at lower prices and sold it to the British Ministry of food (Coulson, 1982). Furthermore, is that during the period from 1945 to 1952, the European companies and the native marketing boards dominated marketing of cash crops because only two marketing cooperatives were registered. The 1952 Cooperative Societies Ordinance paved way for the registration of more cooperative unions and their affiliated primary societies in Tanganyika. Through the ordinance, the government encouraged and facilitated the development of the farmer's cooperatives so that they became full marketing institutions responsible for the marketing of cash crops. As a result, the number of cooperatives unions rose from 2 in 1952 to 32 in 1960 (Mpangala, 2000). The increasing number of cooperative unions enabled farmers to sell most of their cash crops through cooperatives instead of the private middlemen traders. Moreover, it was at this time that the linkage between the outputs and inputs market was established. The cooperatives started to provide agricultural inputs such as chemical fertilisers, agrochemicals, equipments, and transportation of crops; services which was not done by private traders (Mpangala, 2000). However, despite provision of these services to farmers, the 1952 cooperative Society Ordinance placed the cooperatives under the direct control and supervision of registrar of cooperatives which reduced their autonomy.

The increasing number of cooperatives necessitated the modification of provisions and rules regarding the roles of the marketing boards. Previously, the marketing boards purchased crops directly from the farmers and sold them to the trading companies. However, the 1954 African Agricultural Products (Control and Marketing) Ordinance created a special relationship between cooperatives and the marketing boards; cooperatives purchased crops from farmers and sold it to the marketing boards. On the other hand, marketing boards sold crops to the exporting companies (Mpangala, op. cit; Coulson, op. cit). Thus, the present complicated marketing chain from production to export was created at this time. It is obvious that the colonial government took greater interest in controlling marketing of the major cash crops, by creating a single marketing channel for coffee. As we will see in the following section, this situation did not change very much after independence. The independence government inherited from the colonial government the whole system, but made only slight modifications.

3.2.2. Coffee marketing channel from 1961-1976

When the country attained its political independence in 1961, the independent government did not effect any significant changes in coffee marketing. The pre-independence coffee production systems and marketing channels were retained. Production continued to be dominated by smallholder farmers and estates. Moreover, independent government inherited the market that was dominated by the Asian private traders and a thriving cooperative movement. In order to counteract the dominance of Asian traders, the government also took deliberate measures to increase the number of cooperatives (Lele, 1989). The government feared that if left uncontrolled, the Asians traders might dominate the marketing system. Thus, by increasing they number of cooperatives it was hoped the Asian traders would be marginalized. The 1962 Agricultural Products (Control and Marketing) Decree was the final blow to the Asian traders. The decree created a three tiers coffee marketing system that involved marketing boards, regional cooperative unions and primary societies. The Marketing boards were empowered to set prices, store, transport and to sell coffee.

Likewise, cooperatives were merged and formed into regional bodies and were empowered to purchase crops from primary societies and sell them to the marketing boards. Lastly, primary cooperative societies were supposed to purchase coffee from farmers and sell it to the regional cooperative unions (Coulson, 1982). Through the 1960's, farmers' cooperatives continued to play a leading role in the production (by channelling agricultural inputs and credits) and marketing of coffee (Lele, 1988, Kimario, 1992). However, the uncontrolled expansion of cooperatives in the country soon brought problems such as corruption and bankruptcy. As we shall see in chapter four, the Matengo Native Cooperative Union of Mbinga was among the unions that faced bankruptcy during this time. In `1966, the government formed the Presidential Commission of Inquiry into cooperatives which recommended that the government should strengthen its control over cooperatives through powers vested in f the registrar of cooperatives. Likewise, it recommended that cooperative unions at the regional level be re-organised. As we shall see in the next section, these recommendations were provided for the 1968 Cooperative Societies Act.

Thus, from 1961 to 1967, cooperatives had the monopoly of distribution of agricultural inputs and coffee marketing under the supervision of the marketing board. This was the time when cooperatives and primary societies handled coffee procurement and paid the-coffee growers. The marketing boards were responsible for supervision of marketing as well as exporting of the crops. Thus, the government continued with the three tiers marketing system inherited from the British colonial government and close supervised the coffee industry. Direct involvement of government organs in the marketing of the agricultural crops has been explained as one way of ensuring smooth collection of revenue by the government (Lele, 1989). Given the fact that agriculture was a major source of foreign exchange, the government used its position to control the marketing systems through marketing boards, which in turn facilitated the collection of revenue.

3.2.3. Coffee marketing channel from 1967-1976

This was the time when Tanzania embarked on Ujamaa policy, which brought about major reorganisations of the cooperatives. Cooperatives societies were to be transformed into Ujamaa villages, which was to take the shape of multi-purpose village cooperatives (Banturaki, 2000). The Ujamaa policy resulted to enactment of the 1968 Cooperative Societies Act. The Act was the first Cooperative Societies Act enacted to replace the 1932 British Colonial Cooperative Societies Ordinance. Under the 1968 Act, it was made compulsory to sell agricultural produce through cooperative societies thereby establishing a single marketing channel. Furthermore, the activities of the cooperative unions were placed under the Registrar of the Cooperatives, who was empowered to intervene and act any time he felt that there were problems in the management of the cooperatives (Mapunda, 1998). Lastly, the 1968 Act aimed at strengthening the cooperative movement by organising cooperative unions at the regional level and thus, utilising the economies of scale in the use of resources such as office and transport facilities (Kimario, 1992). However, the re-organisation of the cooperative unions on a regional basis did not take place suddenly due of the resistance from the cooperative movement. The 1968 Act marked the initial stage of separating the farmers who were members, from their organisations (Unions and AMCOS) which were formed to fight for their interests.

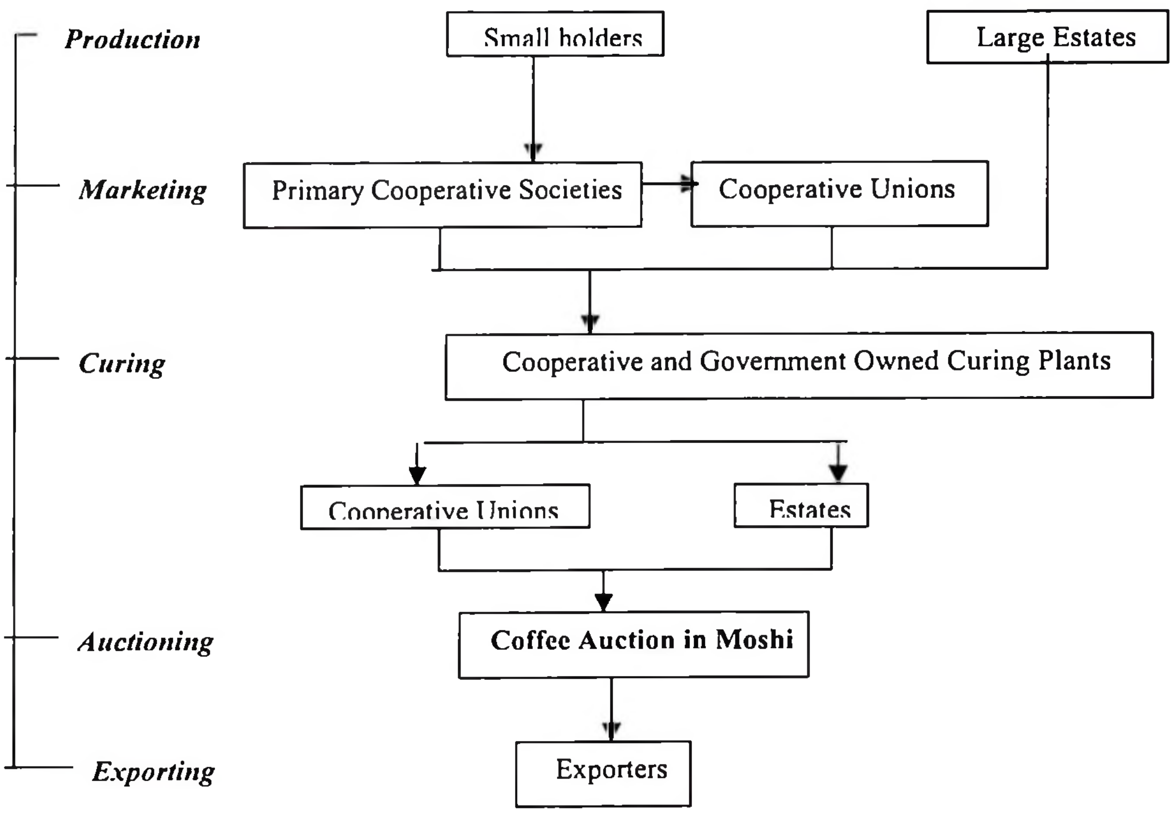


Figure 3.1 Coffee marketing before economic liberalisation

In the years after 1968 Act, cooperative unions were hijacked by the state and ceased to serve the interest of their members. Furthermore, the government wanted to control cash crop production in exchange for industrial commodities and the payment of external debts (Lele, 1989). This explains the reasons why government used all it means to control the activities of the cooperative unions, through frequent changes of policies and directives. However, despite all changes of government policies, yet the cooperatives maintained their monopoly of coffee marketing in the country. It was through this monopoly of the cooperatives that coffee was marketed through a single marketing channel as indicated in Figure 3.1.

Despite government interventions, through frequency changes of policies, cooperatives grew and became very influential to the extent of challenging the authority of the ruling party and threaten the government. The government reacted by increasing its control over them through the direct control of the marketing of cash crops (Lele, 1989). This also partly explains why the government later on abolished the cooperatives. There are of course several reasons why cooperatives were abolished. Bryceson (1985) for instance, argues that cooperatives were abolished in order to reduce incidences of corruption among the cooperatives. Besides, the government justified abolition as a move aimed at freeing the cooperatives from the dominations of the petty capitalist farmers and allows its members to be involved into new forms of Ujamaa villages (Mpangala, 2000, Ponte, 2002). However, the abolition of these bodies was aimed at reducing the emerging power struggle between the government and cooperatives. However, the dissolution of cooperatives did not end corruption. Corruption continues unabated and in fact the abolition of the parastatals and reinstallations of the cooperatives in 1984 was partly prompted by rampant corruptions that existed in the parastatals. The following section gives a brief account of coffee marketing after abolition of farmer's cooperatives.

3.2.4. Coffee marketing channel from 1976-1984

In 1976, the government abolished the primary societies and regional cooperative unions in the country and their functions of procurement and marketing of crops were placed under the village cooperatives and crop parastatals (Candler, 1986). The effects of the said measures to the coffee industry include abolition of the Tanzania Coffee Marketing Board and formation of the Coffee Authority of Tanzania. Before 1976, cooperatives handled all operations related to the marketing of all crops within their area. However, from 1976, however, each crop marketing authority was required to handle only its designed crop which necessitated the creation a chain of offices in the country. Thus, coffee was collected by the villages and sold to crop authorities. Likewise, was the introduction of new systems, whereby the price paid to farmers was not commensurate with the world market prices but was rather decided by the government, after deduction of the costs incurred by the crop authorities in collection and marketing of coffee (Kimario, 1992; Mpangala, 2000; Ponte, 2002). Maghimbi (2002) points out that turning villages into primary societies did not consider the economic viability of the villages. The villages were so many and most of them were not economically viable, and this resulted into weakening the rural economy. It is obvious that the government did not conduct any feasibility study before abolishing the cooperatives. However, the facts that the cooperatives were re-installed in 1984 suggest that the government had realised it's past mistake, although the damage to the primary societies was already done.

There are various assumptions as to why the government has frequently intervened and controlled the management of the cooperatives unions. First, is the government's desire to put under its control, every sector of civil society, such as trade unions and cooperative unions. Secondly, there was a desire to control the economy of the country that was predominantly agriculturally based, and as such, farmer's organisation with their connection to the grassroots provided a good mechanism for the government to control the grassroots. During the period between 1976 and 1984, crop authorities failed to deliver to both the government and the farmers. For example, the crop authorities failed to perform the basic functions that were done by the primary societies, including timely provisions of agricultural inputs and marketing of farmer's produce (Maghimbi, 1990). More importantly, they failed to advise the government on matters relating to the development of the crop-marketing sector. Similarly, the crop authorities were very inefficient and corrupt, with high overhead costs which resulted to financial losses. Crop authorities were not cost conscious and became a burden to the farmers, banks that advanced loans to them and the government. This was to result in negative consequences for the rural economy (Maghimbi, 1986).

Additionally, crop authorities became too bureaucratic in their operations. As such they, like cooperative societies, were not profit making organisations, but rather service-oriented entities whose functions were the procurement of crops from farmers, and processing it before export. As a result, it became difficult for crop authorities to maintain the expanded bureaucracy and avoid making losses. According to Mpangala (2000), crop authorities incurred losses of Tshs. 209.4 millions by 1980/81, a burden that was too heavy for both the government and the people. Likewise, the high operation costs of the crop authorities affected the peasants who were paid low prices for their crops even in the years when the prices at the world market were high (Maghimbi, 1992). The evidence of declining prices has been given by Ellis and Hanak (1980: 13) who noted that during the 1969/70 season, average prices of coffee given to farmers was 80.7 percent of world market prices compared to that given by crop authorities in 1978/9 which was 45.5 percent. These figure show that coffee growers were paid less during the time of crop authorities than when they had their own cooperatives. It is obvious that the crop authorities were not initiated to serve the interests of the coffee growers, but rather those of government. Thus, the established coffee marketing system exploited further the farmers who lacked the alternative marketing channel and representation in the government controlled organs.

Kasimila (2002: 105) comes up with similar arguments when he says that crops authorities alienated farmers further from the process production and marketing, forcing them to depend on the mercy of the government that controlled the prices of their produce. Likewise, farmers who were the producers were not represented in the crop authorities, while they were concurrently forced to sell their crops on credit. The crop authorities did not pay farmers on time. Such delay in payment reduced the incentives to farmers who decided not to increase production. Furthermore, Maghimbi (1990) notes that the failure of both crops authorities and the village government in marketing and supply of inputs to the farmers was attributed to the lack of capacity and competent manpower to perform these tasks. Thus the government did not consider the managerial capabilities of its employees before deciding to abolish the farmer's marketing cooperative and shifting their activities to crop authorities. As a result, the marketing of coffee, among other crops, suffered greatly when cooperatives were abolished. On the overall performance of the crop authorities, Maghimbi (1992) asserts that they failed to deliver because they did not grow out of necessity like the abolished cooperatives and, as such, they lacked both experience and enough expertise to perform the functions that were once done by the farmer's cooperatives. Thus, the poor performance of the crop authorities that became unnecessary burdens to both the government and farmers, were far beyond expectations and increased the crisis in the rural economy. These were among the reasons that forced the Tanzania government to re-introduce the cooperatives.

3.2.5. Coffee marketing channels from 1984-1991

As a result of the flaws and inadequacies inherent in the operations of crop authorities mentioned in the processing section, the government abolished all the crop authorities and their functions were taken over by Crop Marketing Boards. In the case of coffee, the Coffee Authority of Tanzania was replaced by the Tanzania Coffee Marketing Board which was given the legal monopoly of selling coffee and providing agricultural inputs for coffee production as well as maintaining the regulatory functions of the coffee industry in the country (Baffes, 2003). The old and traditional functions of cooperatives including crop procurement, transportation and processing were handed back to the re-installed primary societies and cooperative unions (Maghimbi, 2002; Baffes, 2003). In other words, the government reinstalled the three tiers system whose main actors were primary societies, cooperative unions and marketing boards. Despite those changes, coffee marketing in Tanzania still operated under a single marketing channel as the government continued to control marketing boards, while cooperatives unions and primary societies monopolised crop marketing. The changes were not enough to merit any significant influence and changes in the coffee marketing channel. Therefore, farmers were obliged to sell coffee to primary societies and cooperative unions.

The re-established cooperatives were weak because during their abolition they lost capital, assets, qualified personnel and even members. Maghimbi (1992) notes that before 1976, cooperatives managed to build up capital through cash reserves, membership deposits and cash investment. In 1976, when cooperatives were abolished, the government froze all these assets.

When re-installed, the cooperative unions had lost their investment; personnel and capital that resulted in weak newly formed cooperatives. Thus, without adequate preparations such as building the capital base, and competent staff to take over the marketing of coffee in Tanzania, the cooperatives were weak and failed to perform as expected. The weakness of the re-installed cooperatives that became agents for coffee marketing in Tanzania led to problems such as untimely payment to farmers for their produce which in turn educed their morale to continue with production.

During this time, unions through primary societies distributed to farmers agricultural inputs on loan, depending on the number of their coffee trees. The payment for the inputs was recovered after the sale of crops. On the other side, smallholding farmers delivered coffee to primary societies and were paid the initial instalment, based on the previous announced prices for that particular season. Thereafter, coffee was collected by the cooperative unions and later delivered to the state controlled curing factories (in Mbinga, Moshi and Bukoba), where it was milled, graded and delivered to the Tanzania Coffee Marketing Board. The Coffee Marketing Board auctioned coffee and thereafter, deducted fees and sent the balance to the cooperative unions. On their part, the cooperative unions deducted their operational costs (processing and credit inputs) and sent the remaining amount to the primary societies. Furthermore, the primary societies also deducted their operational costs before paying the remaining sum to farmers. The second payment received by farmers was the balance between the initial payment and the actual auction price (Ponte, 2002; Temu, 2000).

Farmers preferred the multi payment system since the cooperative unions banked some of the money on their behalf and enabled cooperative unions to spread coffee proceeds and inputs costs over a period of about nine months Thus, payment, in three instalments, enabled farmers to have money almost through out the year and it assisted in smoothing their household expenditure (Temu, 1999; Maghimbi, 1990). Farmers preferred this system since the second payment was done in January/February when they had no money which they needed to pay for school fees as well as purchasing farm inputs. However, setting initial payment before auction involved a great risk on the part of the cooperatives. This is because, if the first payment was higher than the actual auction realised prices and other costs incurred by the cooperatives, there was a possibility that the unions might not be able to recover their costs and ended up operating at loss. Baffes (2003) points out how the pricing system was responsible for most of the losses experienced by the unions in the 1990s. This forced the government to intervene in order to rescue most of the cooperative unions from bankruptcy.

During the single marketing system, coffee farmers did not benefit much because the government determined the prices for coffee, which was not commensurate with the world market prices and, as such, farmers were somehow exploited. Furthermore, from the colonial times to the beginning of the 1990s, farmers had no power to control the market for their coffee (it was controlled by the government) and thus, ended been the victims of the system. The following section reviews coffee marketing after economic liberalisation and analyses how it has impacted upon the power of the coffee farmers to influence the rapid changes in the coffee marketing systems.

3.3. COFFEE MARKETING AFTER ECONOMIC LIBERALISATION

3.3.1. Coffee marketing from 1991-2001

Through the course of the implementation of SAP policies, the government amended the Cooperative Act in 1991 so as to correspond to the on going changes. The 1991 Cooperative Act recognised cooperative unions as private institutions owned and managed by the members themselves. At this point, the roles and functions of the Coffee Board were changed from those of a marketer to an entity responsible for monitoring the activities of various organisations in the coffee industry. Thus, besides the marketing of coffee, TCB was empowered to monitor and supervise the activities of the stakeholders in the coffee industry. Other changes included the introduction of a fee of 1.6 percent of the auction sale of all coffee auctioned (Baffes, 2003). Thus, it is obvious that these changes were aimed at paving the way for liberalisation of the domestic marketing of coffee which was one of the conditionalities of the IMF/World Bank sponsored SAP.

Tanzania started reforms in coffee marketing in 1994/95 (Ponte, 2002). Through the implementation of liberalisation policies, two major reforms were introduced. First, the government liberalised coffee marketing by stopping the advance setting of producer prices for cooperatives and left the market forces to operate (Baffes, 2003). Secondly, the coffee marketing system was diversifies from the monopoly of a single marketing channel to multiple-channels whereby Private Coffee Buyers (PCB) were allowed to participate in the domestic coffee marketing process. As we shall see later on, the changes of marketing channels in Tanzania did not improve the conditions of the coffee farmers. The only change was that, under present situation, coffee market is controlling by the farmers, while previously, the government controlled both the coffee market and farmers.

The next sub-section of this section examines the major changes that have occurred after liberalisation of coffee marketing. However, before examining the changes, the section introduces the functions of Tanzania Coffee Board (TCB) empowered to control and regulate not only the coffee marketing but also coffee industry in general. Moreover, discussion of the working mechanisms of the TCB will give us a clear picture of the historical evolution of coffee marketing chain from production point, marketing, processing, auctioning and exporting, and the reasons which have necessitated major changes which have occurred since 1991 to present and relate it to situation in Mbinga.

3.3.1.1. Coffee marketing

The liberalisation of domestic coffee marketing in Tanzania meant that private traders were invited to invest in the four stages of coffee marketing structure; processing of cherry beans to parchment coffee; purchasing and selling of parchment coffee; curing of parchment to clean coffee; as well as exporting). Liberalisation also allowed private traders to deal in coffee processing domestic trade and export (Cooksey, 2004). Thus, from the 1994/95-crop season, private traders were allowed to purchase coffee from farmers and process it either in their own factories or the government and cooperative owned curing factories. Despite the liberalisation of domestic marketing, the government still maintained power over the process. For example, the auctioning of coffee was left under the TCB which has been empowered by the Coffee Industry Act of 2001, (no. 23) to auction all coffee produced in Tanzania whether intended for export or for domestic marketing. The government transformed the organisation which was responsible for coffee marketing, the Tanzania Coffee Marketing Board (TCMB) to Tanzania Coffee Board (TCB) whose roles changed from a marketing organisation to an entity responsible for monitoring the activities of various organisations in the coffee industry (Ponte, 2002: 31).

The Tanzania Coffee Board (TCB) is the statutory body that was established by the Coffee Industry Act of 1993 and replaced the Tanzania Coffee Marketing Board, which was in operation since 1984. The functions of the TCB include advising the government on policy and strategies for the development of the coffee industry, to regulate the industry, to issue various licences and permits, collect and disseminate statistics and run the weekly coffee auction (Baffes, 2003). In addition, TCB is also empowered to draw up rules, regulations, regulate grades and quality of coffee produced and marketed in Tanzania.

The monitoring functions of the TCB include licensing of (PCBs), and setting regulations that guide the coffee marketing process. For example, PCBs are required to apply and renew their licences every year, to purchase parchment coffee from specified points only (and not at farm gates) and to display their prices to farmers. Besides, PCBs are required to purchase coffee input vouchers from the Inputs Vouchers Fund and distribute a voucher of Tshs 50 to every kilograms of parchment coffee purchased. However, as will be discussed later on, TCB has, in the case of Mbinga, failed to enforce their regulations at the farmers level where coffee is purchased. Important to also point out that PCBs competed on the same footing with cooperative unions without capital base, and depended highly on the loans from the commercial banks with interest rates of between 19-25 percent per annum (KCB, 2003). The immediate effect of the liberalisation of coffee marketing in Tanzania was the decreasing shares of the cooperative unions and increasing share of the PCBs in domestic marketing (Temu 1999). Consequently, PCBs with upper hand in purchasing coffee were left to decide the prices that they would offer to farmers and this affected the performance of the cooperative unions whose existence depended on the levies collected from farmers produce. For example, before the 1993/94 coffee season, cooperative unions dominated coffee marketing by 75.0 percent; other government organisations controlled 19.0 percent, while the estates accounted for only 6.0 percent. However, the share of cooperative unions in the 1997/98 crop season, had dropped to only 26.0 percent, as compared to the 65.0 percent of the private coffee buyers (Temu, 1999). Inadequate preparations among the cooperatives unions to compete on equal footing with private buyers and limited capital were among the reasons that caused the cooperative unions to loose their dominance in the coffee market as indicated in Table 3.1.

Table 3.1 Percentage shares of participants in Kilimanjaro zone in 1993/94-1997/98

		1993/94	1994/95	1995/96	1996/97	1997/98
1	Vertical integrated exporters	0	12	33	57	45
2	Other private coffee buyers	0	1	8	12	22
3	Cooperatives	75	58	44	22	26
4	Estates	6	8	4	6	7
5	Other government organisations	19	21	11	2	1

Source: TCB, 1998

Initially, competition in the purchase of coffee resulted in the increase in prices that benefited farmers. Payment in cash helped motivate farmers who were previously used to delays in payment from the cooperative unions (Maghimbi, 2002). Having alternative marketing channels, farmers who became tired with the delay of payment and low prices offered by the cooperatives opted to sell their crops to private buyers on cash. Thus, cooperative unions, already weakened by the private buyers, were unable to compete on the same footing and as a result failed to offer the services that they once offered e.g. distribution of agricultural inputs to their members who had more than one alternative of selling their crops. Market liberalisation changed the marketing chain and arrangement that existed before. For instance, farmers became free to sell their crops to the highest bidders. Likewise, primary societies became free to decide the quantity of coffee they can buy, and whether to sell it to the union, private buyers or directly to the auction in Moshi. In addition, cooperatives are also allowed to sell coffee either at the auction or to acquire an exporting licence and compete with private buyers at the international auction (Ponte, 2002; Temu, 1999). This freedom brought flexibility to the coffee marketing chain. Some farmers who were not satisfied with all marketing options available initiated their groups and opted to sell their coffee directly to the TCB auction in Moshi. Figure 3.2 indicates coffee marketing channel after liberalisation.

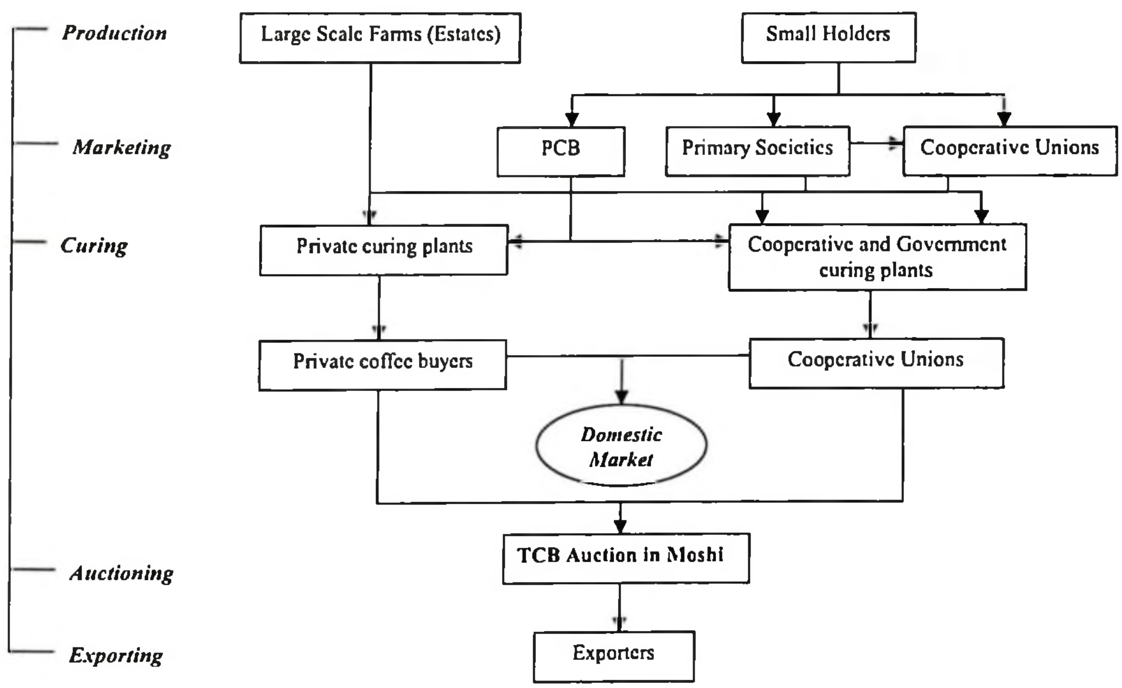


Figure 3.2 Coffee marketing channel following economic liberalisation

After allowing of PCB, growers could from then sell their coffee to private buyers, cooperatives or primary societies. The curing of coffee was done either at the cooperatives and government owned curing plants or at private curing plants. Figure 3.2 shows the multiple channels where farmers can sell their coffee as well as multiple channels for coffee processing. Despite the changes which have occurred in the coffee marketing structure, coffee is still produced by small holders farmers who produce 90 percent of the crops and private owned estates, mostly located in Kilimanjaro and Arusha regions who account for the remaining 10 percent

The 1998 Coffee Industry Act allowed ownership of more than one licence, i.e. a coffee trading company was allowed to engage in processing, domestic marketing, curing, as well as exporting. Ownership of more than one licence weakened competition for domestic procurement of parchment and cherry coffee and led farmers to succumb to the mercy of the PCBs, which set prices as they wished.

3.3.1.2. Coffee auctioning

The coffee auctions are conducted by the Board at the Moshi Coffee exchange situated at the TCB Headquarters, in Moshi, Kilimanjaro region. By law, all exported coffee in Tanzania must pass the coffee auction conducted every Thursday from 10.00 am at the premises of the TCB located in Moshi town. Two weeks before the auction, the officials of the TCB prepare and distribute to the licensed exporters, catalogues with information on grades, location of the warehouse and the volume of each of the lots to be auctioned. The samples of the coffee to be auctioned are sent to the exporters two weeks before the intended date of the auction so as to give enough time to the exporters to sample the product and make purchasing decision. At this stage, the samples are identified by using the lots, which makes it difficult to establish the owner of the sample (TCB, 2003). Exporters, using their liquors, taste the sample and determine the quality of coffee before deciding whether to buy it or not. Likewise, samples are sent earlier to give the exporters enough time to search for potential buyers before committing themselves into purchasing it.

Although the coffee auction in Moshi is open to both exporters and observers, there are 24 assigned seats for potential exporters only. The auction is conducted silently, using electronic auction system that displays grades of coffee that conform to the sample of the lots submitted by the producers. The lots are prepared in such a manner that does not disclose the identity of the owner. This is different from the previous system that displayed the identity of the owner. The identification of the owners was the major reason that led to re-possession of coffee and limited competition behind the whole idea of auctioning. The electronic auction was introduced for the aim of eliminating the previous weakness of re-possession of coffee (captive coffee). The 'captive coffee' game was played by the subsidiaries of the multinational companies which controlled the coffee supply chain by purchasing coffee from the growers, selling and buying it back to themselves at the TCB auction (Peel, 2001). Before the introduction of the electronic auction system, it was estimated that the captive coffee accounted for about 50 percent of the coffee auctioned in Moshi (Baffes, 2003). The effects of re-possession/captive coffee were to weaken competition and resulted in the decline of prices at the auction. Thus, the new system was meant to make coffee auction more transparent and competitive. During auctioning, the bids are presented by pushing the buttons that are accessible to the potential buyers. The bids are presented until the highest bidder is found. The auctioneer declares the lots sold only if the highest bid exceeds the reserve prices. Thereafter, the auctioneer will show the auctioned price and the names of all the bidders, including the highest bidder. After the auction, the winners are given two weeks to pay for their purchased coffee. Furthermore, it is the responsibility of the exporters to transport coffee from their warehouses up to the point of export. In Tanzania, coffee warehouses and their respective production zones are as follows; Makambako warehouse for coffee from Mbinga and Songea, Mbeya warehouse for Mbozi Mbeya and Rungwe, Kemondo warehouse for Bukoba and Mara regions, and Moshi for Kilimanjaro and Arusha regions and Lushoto district.

Prices of coffee are set in US dollars. Before the auction session, TCB sets reserve prices for each lot. The reserved price is based on the coffee prices at the New York exchange market. For the transaction to be finalised, the final bid must be greater than the reserve prices. This means that, the prices of coffee at the auction in Moshi are relatively equal or similar to prices at the coffee auction in New York. Similar findings were also reached by Tsujimura (2002) who demonstrated that the producer prices in Tanzania fluctuated according to the New York future prices. However, the producer's prices referred to here are the prices at the auction, which are not subject to central and local government taxes. This means that, if the prices fall, while the taxation levels remain the same, the farm gate prices will decrease further. Temu, Winter-Nelson and Garcia (2001), studied the auction prices in Moshi and concluded that the auction prices are usually parallel to the New York Board of Trade terms, which means that there is a close unitary elasticity of transmission of the coffee prices at Moshi and New York. In other words, the prices at the Moshi auction are almost similar with those at the New York Coffee Market, which implies that the prices at the TCB auction reflect the trend of prices at the world market.

Due to the small numbers of staff stationed mainly at the headquarters in Moshi, TCB depends more on appointed coffee inspectors from the coffee growing districts who, however, lack logistic support to enable them perform their duties as expected. Thus, TCB operates more at the auction level than at the production and marketing levels. Absence of TCB control at the farmers level has brought about some of the weaknesses that have been capitalised upon the PCBs as against the smallholding coffee growers. Absence of coffee inspectors both at production and primary marketing level will be discussed in-depth in chapters four and five. More importantly, however, is the fact that PCBs are required to purchase coffee input vouchers from Inputs Vouchers Fund and distribute voucher of 50 shillings to every kilogram of parchment coffee purchased. However, as will be discussed later on (the case of Mbinga), TCB has failed to enforce this regulation at the lower farm level where coffee is purchased just like food crops such as bean and maize.

3.3.1.3. Coffee curing

Prior to 1976, investment in coffee curing plants was minimal and Tanzania had only two coffee curing plants, both owned by the cooperative unions. The processing of Arabica coffee was done in Moshi while that of Robusta was done in Bukoba (Temu, 1999; Baffes, 2003). The primary societies delivered coffee for processing to processing factories that were both owned by the two giant cooperative unions and the government in the country. Liberalisation of the coffee industry resulted in an increase of the number of coffee curing plants in the country. Prior to liberalisation, Tanzania had three curing plants that were located strategically in coffee producing zones and were owned jointly by the government and cooperative unions. The locations were Moshi, Mbeya and Mbinga. By 2000/01 there was an increase in investment in coffee curing plants, mostly from private companies. For mild Arabica, five exporting companies built six curing plants, while nine other plants were built for hard Arabica and Robusta (Ponte 2002). The new curing factories which are technically and economically more efficient than the old one, have also brought about the improvement in curing, massive increase in curing capacity, increase in coffee turnaround, and the lowering of curing losses (Temu, 1999; Ponte, 2002). However, the new investment has affected the government and cooperative plants which have lost shares in the market. For example, before the introduction of the new factories, curing operations were dominated by the Tanzania Coffee Curing Company that controlled around 70 percent of curing capacity which by 1997/98 had dropped to 30 percent (Temu, 2002). Thus, the new factories have not only given coffee growers and private traders wider choices of avenues for curing their coffee, but have also increased efficiency and decreased curing costs. After curing and grading, the owners (cooperative and private coffee buyers) send sample of their coffee to the auction. After auctioning, coffee is taken by the exporters or cooperative unions that send it abroad to the roasters.

3.3.1.4. Coffee inputs markets

Before liberalisation of the inputs markets, credit for agricultural inputs was integrated into coffee sales, in such a way that inputs were supplied to farmers through a credit and the cost recovered after the marketing of coffee. This arrangement functioned well because the cooperative unions and primary societies had the monopoly of purchasing crops from farmers (Baffes, 2003). The monopoly of the cooperatives was assured by the fact that, under the single marketing channel, farmers were obliged to sell their crops through the primary societies and cooperative unions. Agricultural inputs for export crops were provided to farmers by the cooperative union and respective marketing boards that supervised the respective export crops. Farmers got used to the system in which the inputs were provided 'free' of charge and payment was done later after the sale of the crops (Temu, 2000; Ponte, 2002). In this way, farmers did not feel as if they were paying for the inputs. Besides, the government provided substantial subsidies to the inputs made them cheaper than the market price. The economic liberalisation policies put an end to the government monopoly in the supply of agricultural inputs to farmers. Furthermore, the removal of government subsidies and devaluation of the Tanzanian currency increased the price of inputs, and subsequently, farmers could not afford to purchase the inputs on cash from their own pockets.

The entry of the private traders in the marketing of inputs has not assisted farmers in obtaining inputs. Most of private traders have offices and shops in towns, which makes it expensive and difficult for remote farmers to access the services (Ponte, 2001). The weakened capacity of the cooperative unions also affected the supply of agricultural inputs to farmers (Cooksey, 2003). Although some of the PCBs tried to distribute inputs to farmers, this did not work as expected since some of the farmers were not credit worthy. With the availability of more than one channel of marketing their coffee, farmers took agricultural inputs from one PCB and sold their crops to other buyers. Consequently, having realised the difficulty in recovering their credits on inputs, PCB lost interest in supplying inputs and concentrated in the buying of coffee only (Temu, 2002). As a result, farmers were left on their own to continue with production but without a reliable supply of inputs. While the interest of the private buyers was to purchase coffee, that of the government was to collect taxes. None of the two sides was interested in ensuring that farmers continued with production.

In 1994, it was estimated that only a quarter of the coffee farmers used purchased agricultural inputs. The major reason quoted for this situation was the absence of credit to small holder farmers to purchase inputs. The effect of liberalisation with regards to the distribution of agricultural inputs was the dismantling of the old link between the provision of agricultural inputs and coffee marketing (Baffes, 2003). Since it became difficult for both the cooperative unions and private coffee buyers to recover inputs loans, farmers were forced to purchase agricultural inputs on cash basis, a condition that reduced the use of inputs among them (Temu, 1999). However, with liberalisation of the inputs markets, the complaints of the farmers against untimely and unavailability of the agricultural inputs have ceased. Agricultural inputs of all kinds are now available in shops owned and operated by private dealers throughout the year. Farmers must however purchase them on cash basis. Moreover, there are complaints on the quality of such inputs, as some farmers have complain that some of inputs are ineffective (Temu, 1999). In sum, the liberalisation of the inputs market has opened a door for unfaithful traders to cheat farmers and sell low quality inputs. The above problems facing the farmers in obtaining agricultural inputs are indeed the cause of the formation of National Coffee Inputs Voucher as discussed in the following section.

3.3.1.5. The Nation Coffee Inputs Voucher Scheme (NCIVS)

The Nation Coffee Inputs Voucher Scheme (NCIVS) was created in order to rectify the missing link between coffee marketing and inputs distribution. It was the result of the gap created by the failure of the cooperative unions to supply inputs and liberalisation of the economy that removed the government subsidies. The NCIVS offices have been located in Moshi, Kilimanjaro region that is also the headquarters of the TCB. Registered coffee buyers are supposed to purchase inputs vouchers that are proportional to the amount of parchment coffee they expect to buy from farmers (Temu, 1999; Ponte, 2002). For example, if a PCB expects to purchase 2,000,000 kilograms of parchment coffee, then before purchasing coffee, it is required to purchase inputs vouchers for that amount which is 2,000,000 kilograms x Tshs 47.50. Furthermore, it is supposed to distribute vouchers to coffee farmers when purchasing parchment coffee at the established points. Through this arrangement, Tshs. 47.50 is deducted from each kilogram of parchment coffee sold, as a reserve for the purpose of purchasing inputs. Thus, farmers sell their coffee and receive their payment in cash or credit, minus 47.50, which is paid in a form of a voucher.

Apart from farmers and parchment buyers, another link with the inputs vouchers scheme are the private registered inputs distributors. The inputs distributors are supposed to collect inputs vouchers from farmers in exchange for agricultural inputs of equal value to the vouchers. Furthermore, registered inputs distributors have to submit inputs vouchers they have collected to the NCIVS office for cash payment. Through this system, it was thought that the missing linkage between coffee marketing and inputs distribution would be re-established. During the course of implementation of the vouchers scheme, several weaknesses have been observed. The value and amount of vouchers received by farmers for purchasing inputs for next season is closely linked to what farmers have marketed in that particular season. Thus, when coffee production is low, vouchers issued might not be enough for purchasing sufficient agricultural inputs. With ever increasing prices of inputs, it has become difficult for farmers to obtain enough vouchers to purchase enough inputs to sustain them into coffee production. Temu (1999) noted that in 1996/97, inputs vouchers accounted for only 20 percent of the inputs financed and farmers had to use 80 percent from their own savings. This issue will be discussed further in section relating to availability, use of inputs vouchers and financing agricultural inputs purchase among the farmers in Mbinga district.

Another problem of inputs voucher scheme is the weakness and loopholes, which allows PCBs to purchase parchment coffee from farmers without distributing inputs vouchers. Although some of the objectives of the NCIVS are to issue and monitor the issuance of vouchers to farmers, this has not being implemented, at least in Mbinga district. As we will see in later sections, in the 2004/05 season, some of the PCBs have purchased coffee from farmers without issuing inputs vouchers. It is not clear as to how PCBs could be granted licences at TCB and district level without ensuring that they had purchased inputs vouchers. The absence of linkage between TCB and

NCIVS gives loopholes for the PCBs to purchase coffee from farmers without issuing vouchers, a condition which has threatened future coffee production and income for the farmers. This is contrary to the earlier expectation that parchment buyers would contribute inputs proportional to the amount of coffee they purchase (Temu, 1999).

Despite those weaknesses, the NCIVS has managed to a small extent, to link coffee marketing and inputs sale/usage among the coffee farmers. It was also noted that vouchers were not used by farmers for purchasing inputs, but rather found their way to the parallel vouchers market that has mushroomed (authors' interviews with farmers, 2003/2004). However, it is the responsibility of the TCB and respective district authorities to make sure that coffee marketing is done in accordance with set rules and regulations so that farmers, PCB and the district could all benefit. Indeed the purchase and distribution of vouchers is one of the important requirements before one is given a licence. If this trend remains unchecked, the aims of the NCIVS will not be met and as a result, the future of coffee production in Tanzania may be threatened.

The 1990's were the period which witnessed the weakening power of the cooperatives to compete with private buyers. The cooperatives were faced but high level of debt, which made it difficult for them to obtain credit from commercial banks as well as widespread corruption. As we will see in chapter four, farmers who were given input loans by the cooperatives and sold coffee to the PCBs contributed to the weakening of the cooperatives. On the other hand, the weakness in the regulation of the Coffee Industry gave a room for PCB to monopolise coffee marketing and erodes the level of prices and capabilities to compete. The following section examines the measure taken by the government to correct those weaknesses.

3.3.2. Coffee marketing from 2002 to the present

The activities and processes in the coffee Industry are regulated and controlled by the Coffee Industry Act passed by parliament and approved by the President. The current Act under operation is the Tanzanian Coffee Industry Act of 2001. The necessity for the 2001 Coffee Industry Act lies in the weakness of the 1998 Coffee Industry Act which allowed possession of multiple licences in coffee marketing which made it possible for PCBs to perform all four functions relating to domestic coffee marketing: purchasing coffee from farmers, processing, curing and exporting. Before the 2001 Act, it was estimated that two thirds of the PCBs in Tanzania were 'vertically integrate' exporters (companies that buy coffee from farmers, process it in their own facilities and export it). Thus, the vertically integrated exporters dominated the entire coffee marketing chain because of their ability to act as buyers and sellers at the auction (Temu, 1999; Ponte, 2001; Baffes, 2003). This phenomenon has been termed 'repossession' or 'captive coffee'.

Repossession of coffee in the marketing chain was one of the reasons that reduced the price competitiveness at the coffee auction. Thus, problems related to the repossession of coffee, called for the review of the 1998 Coffee Industry Act in order to increase competition, efficiency and consequently, coffee prices and farmers income.

The 2001 Coffee Industry Act brought three major changes in coffee licensing and marketing. Firstly, section 42 (1) prohibits the multiple ownership of licences in domestic coffee marketing. Thus, registered private coffee traders were to choose to have only one licence, either parchment buying licences which would allow them to purchase parchment coffee from farmers or coffee curing licence which would allow them to own coffee curing plants, or green coffee export licence which would allow them to purchase coffee from the auction and export it. Possession of one licence was aimed at bringing efficiency and competition in the coffee marketing chain and thus, increases the price of coffee. Secondly, the Coffee Industry Act directs that all parchment coffee to be purchased according to grades. This is based on the five grades identified at the primary processing: special grade, parchments I, II, III, and floaters. Purchasing coffee according to grades is aimed at rewarding growers who have worked hard to produce high quality coffee by receiving high prices as well as encouraging others to follow their examples. It is expected that purchasing coffee according to grades would end up improving the quality of coffee from Tanzania. As a result, selling coffee according to grades has encouraged coffee growers to initiate groups, which are trying hard to improve the quality of their coffee so that they fetch high prices and/or income. Thirdly, it allowed primary societies and farmers groups to sell their coffee directly to the auction and thus, increasing the income obtained from each kilogram by stopping /prevention of deductions formerly made by the cooperatives. Thus, coffee growers from various parts of Tanzania have taken initiative to form groups and sell their coffee to the TCB auction.

3.3.2.1. The impacts of the 2001 Act on the coffee marketing system

The 2001 Coffee Industry Act prohibits PCBs from owning more than one licence and thereby limiting their power and dominance in the domestic coffee marketing chain. The reaction of the PCBs to the 2001 Coffee Industry Act was to choose having exporting licences, which means that most of the companies removed themselves from purchasing parchment from farmers and concentrated on purchasing coffee at the auction. However, PCBs saw the 2001 Coffee Act as being aimed at deterring the international private companies from buying coffee from farmers and/or bringing it to the Tanzanian auction in Moshi. Besides, others wondered how the cooperatives which were almost collapsing, would raise their capacity to replace the private companies in these functions, especially given the large logistics and finance needed to advance to farmers before coffee is put on auction and bought. Not surprisingly, therefore, the PCBs considered the government orientation as a step backward, failing to attract investors in the coffee industry. Furthermore, the act promoted participation of farmer's groups, primary societies and cooperative unions in both domestic marketing and export of coffee, which threatened the share of the PCBs in Tanzania.

In a different note, the 2001 Coffee Industry Act gives special privilege to cooperatives to possess both licences of purchasing parchment and exporting. Previously, cooperatives were not entitled to have an exporting licence, thus forcing them to sell their coffee at the auction. The Act therefore, is expected to improve the capacity and motivate cooperatives unions to compete with PCB both in domestic and export markets. However, this will be possible only if cooperatives are able to increase their capital base and efficiency in their operations. For the benefits of the farmers, the 2001 Coffee Industry Act allowed farmer groups and primary societies to sell coffee directly to the TCB auction in Moshi. These changes are important that, unlike in the previous arrangement, where, primary societies were obliged to sell their coffee to either cooperative unions or PCBs, they can now sell it directly to the auction in Moshi. The changes have thus, been initiated to enable farmer's groups to sell coffee directly to the auction in order to maximise proceeds obtained from the coffee marketing chain. Likewise, the emergence of farmers groups have reduced share of both cooperative unions and PCBs, whose practices led to the exploitation of coffee farmers. The advantages of direct auction for both farmers groups and primary societies are discussed in details in t chapters four and five.

On the other hand, the 2001 Coffee Industry Act and subsequent changes made after have opened room for farmers groups and cooperatives which produce speciality coffee (classes one to six) to market it directly to the roasters without passing through the TCB auction in Moshi. By direct auctioning and exporting of coffee, more farmers are expected to be motivated and produce high quality coffee which fetches high prices thereby increasing their incomes. So far, however, only farmers groups organised by NGOs have managed to sell their coffee directly abroad. It is not clear, however, if other farmers groups, which do not have any support, could be able to utilise this opportunity of direct auctioning of their coffee. Although coffee was auctioned according to grades before the 2001 Coffee Industry Act, however, PCB and cooperatives purchased coffee regardless of the grade and growers did not benefit from the differential prices offered according to the grades. Farmers received uniform prices regardless of the grade which he/she had produced. Uniform prices reduced the morale of the farmers to work hard and achieve good grades that would fetch good prices and at the same time created loopholes for unfaithful traders to cheat and exploit former. The new Act reintroduced the system of marketing coffee according to grades. This has boosted the morale of farmers to initiate groups, and work together to improve the quality of coffee in order to fetch higher prices. The advantages of selling coffee according to grade is dealt with in details on the sections of emergence of farmers groups and direct auctioning in chapters four, five and six. Having discussed the changes which were brought about by the 2001 Coffee Industry Act, the next section examines the current situation of the world market for coffee, while the last section touches on the responses of the coffee farmers with regards to increasing costs of agricultural inputs and decreasing coffee revenue in the three major coffee production areas.

3.3.3. The international trend of coffee production and prices

The prices of coffee at international market have been declining in recent years. Imbalance between demand and supply of coffee, advancement in roasting and production technology and volatility of the coffee prices are among the reasons which keep the prices at low level. The following section briefly explains these reasons by presenting the current situation in the world coffee market.

3.3.3.1. Imbalance between demand and supply

The massive over supply of coffee and stagnant rates of consumption, along with huge stockpiles at the world market are major causes of the current decline in prices of coffee (Bates, 1999; Ransom, 2001; Baffes, 2003). Oversupply of coffee in the world is partly, the result of pressure from developing agencies such as the World Bank, IMF and governments of the coffee producing nations which calls for more coffee production and export in order to boost foreign currency earnings and capacity to pay their external debts (Kanaan, 2000). These campaigns have encouraged the expansion of coffee production in the world, which does not correspond to the current rate of consumption. For example, pressure to pay external debts transformed Vietnam from an insignificant coffee exporter to the current status of the second largest coffee exporter (ICO, 2001). The trend of coffee production in Vietnam is indicated on figure 3-3

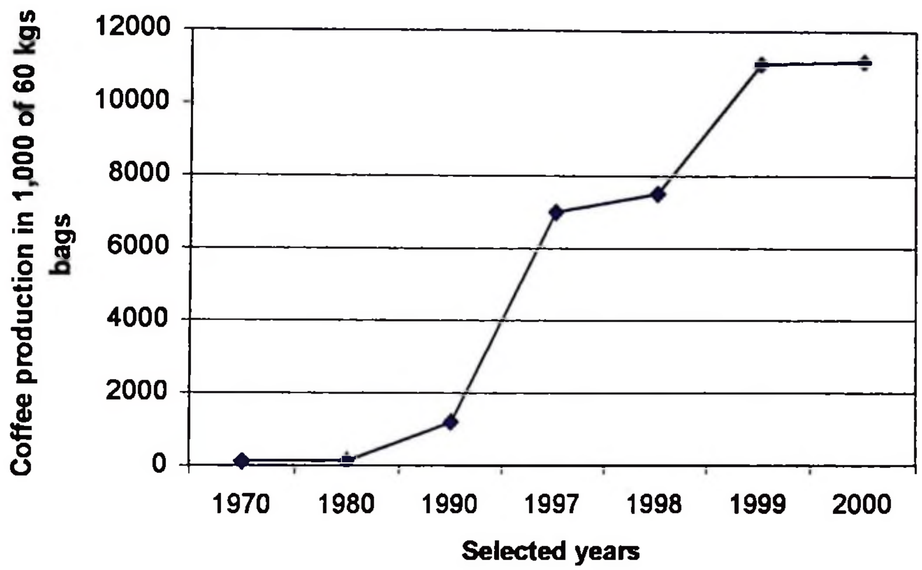


Figure 3.3 The trend of coffee production in Vietnam
Source: Oxfam, 2003

Figure 3.3 indicates increasing share of Vietnam in global coffee production, which is among the reasons for imbalance between demand and supply of coffee in the world market. It is estimated that the annual increase in demand is only 1.5 percent, while the annual increase in coffee production is at 3.5 percent (ICO, 2004). Thus, the imbalance between demand and supply for coffee is a major reason contributing to the decline of coffee prices in the world.

3.3.3.2. Advancement in production and roasting technology

For the past 30 years, major coffee producers have been involved in experiments in order to come up with the technology of coffee production that will enable the producers to increase yields within their areas without increasing the number of trees. Brazil is one of the countries that have mechanised coffee production by various methods; first, is the adoption of extensive mechanisation of coffee harvesting which has reduced costs of labour in production, second is the introduction and adoption of better-improved varieties with higher yields, which will further increase the share of production, without increasing the areas under production; third is the extensive use of irrigation on coffee production which has stabilised and sustained yields, and finally is the improved technology in roasting of coffee has enabled the roasters to remove the harsh taste of natural Arabica and Robusta and achieve the same level of quality with lower quality beans such as Robusta (Baffes, 2003). Implied from all that has been aforementioned in the proceeding statement is the fact that the current trend of coffee production and consumption in the world are not commensurate and as such keep the coffee prices down.

3.3.3.3. Volatility of coffee prices

Generally, the volatility of coffee prices is caused by the global over-supply, resulting from the concentration of producers on increasing production of coffee without considering the effect of over supply to the prices as well as estimates of increasing consumption. Prices of most of the primary commodities such as coffee do have impacts on consumption and are prone to unstable terms in the world market. Coffee prices are among the most volatile of commodity prices (Baffes, 2003), which means they are unstable and subjected to frequent changes from time to time or stabilise at lower prices (Hyden, 2004), as indicated in figure 3-4.

Similarly, coffee is very vulnerable to weather conditions that have direct effects on its production, supply and prices. For example, natural events such as frost and drought damaged Brazilian coffee in 1950, 1975, 1984 and 1994 leading to a decline in production and supply and thereby leading to sharp increases of coffee prices in the world (Mbilinyi, 1976; Ransom, 2001). It has been estimated that weather conditions in Brazil change every five to six years and at such times, the world markets experience a shortage of coffee that in turn triggers a rise in prices.

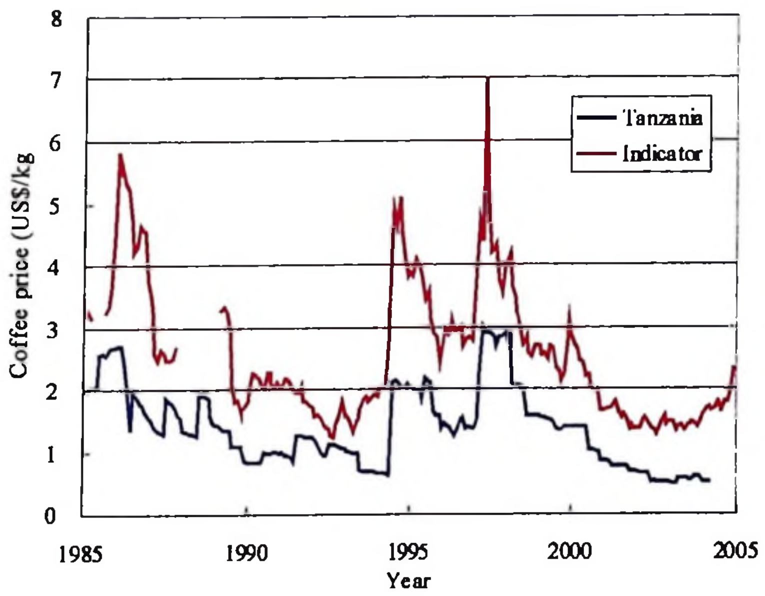


Figure 3.4 Changes of the indicator price in Colombia Mild Arabica Group including Tanzania Arabica Coffee and the price paid to coffee growers in Tanzania (1985-2004)

3.3.3.4. Influence of world market for coffee

It is also important to take cognisance of the fact that the price of coffee at TCB auction is arranged according to the New York Contract market (Bates, 1999; Ponte, 2002; Baffes, 2003). The higher the prices in New York, the higher will the prices be at the TCB auction in Moshi. Coffee production in Tanzania is usually for export and very little remains for internal consumption. It has been estimated that only 1 percent of coffee produced in Tanzania is consumed within the country and the rest is exported (TCB, 2003). However, these estimated do not take into account amount of coffee produced and consumed locally by the producers. As such, too much dependency on export has made the Tanzania coffee industry vulnerable to the world market prices.

The determination of coffee prices at the world market is very different from that of other products such as petroleum, whereby the Organisation of Petroleum Exporting Countries (OPEC) determines production levels as well as prices. It is unfortunate that, most primary commodities experience fluctuations of market prices, while prices of industrial products are relatively stable. Suffice it to also note that, the fluctuation of prices of primary commodities have been acknowledged by many observers Konbur (1985) for instance, notes that wide and rapid fluctuation in the world prices of primary commodities destabilise the economies of the producers.

3.3.3.5. The impacts of the economic liberalisation to major Mild Arabica coffee producing zones

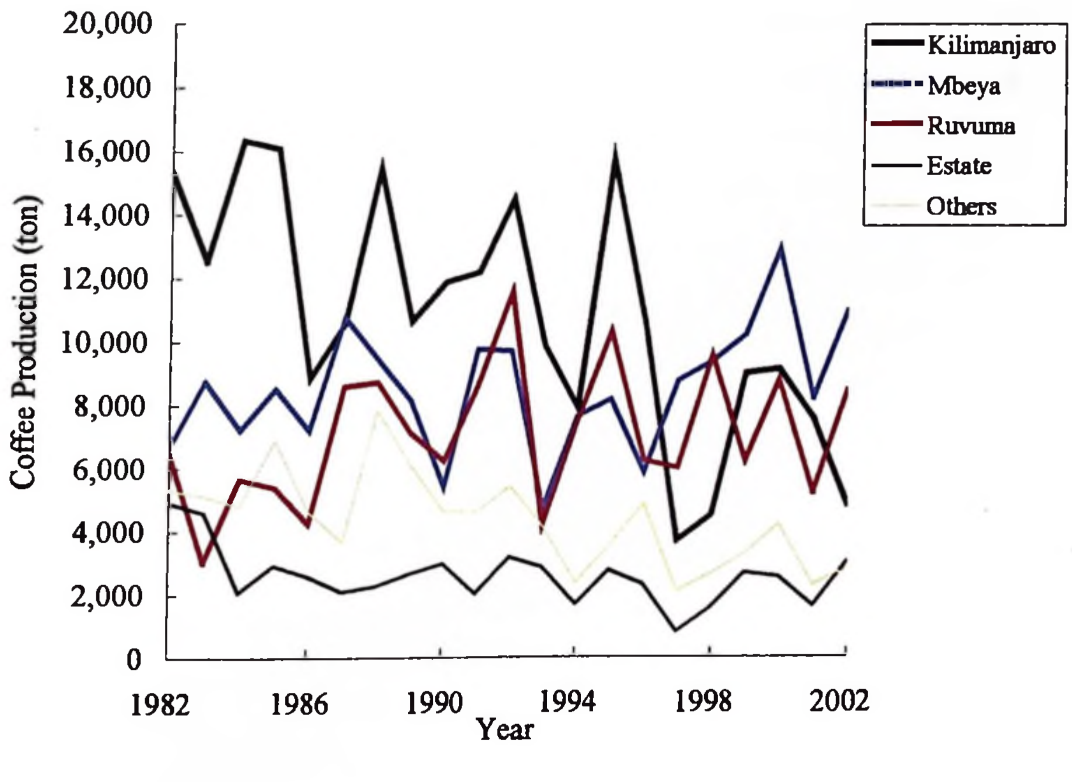
The effects of liberalisation on coffee marketing in Tanzania were not similar in all areas, since reactions and adjustment by coffee farmers and their cooperatives differ from one coffee-producing zone to another. This section examines the impact of economic liberalisation policies and practices on the three major Mild Arabica coffee producing zones in Tanzania, namely Kilimanjaro, Mbeya and Ruvuma regions. Likewise, it compares the effects of economic liberalisation into coffee production and marketing in the three zones.

(a) Coffee Production

Coffee production in Kilimanjaro region is characterised by both the presence of smallholder's farmers and estates (TCB, 2003). During the 1981/82 coffee seasons, Kilimanjaro region was the leading producer for the Mild Arabica coffee in Tanzania. However, after the liberalisation of both inputs and output market, some farmers in Kilimanjaro have abandoned coffee cultivation and shifted to other income-generated activities (Ellis, 2004, Larson, 2001). The shift from coffee production to other income sources has caused the decline in coffee produced from Kilimanjaro region. Figure 3.5 indicates the decreasing trend of coffee produced from Kilimanjaro region from the 1981/82 to 2002/03 coffee seasons. Although coffee production in Kilimanjaro region in 1996/97, did increase, this might have been the result or function of prices increase in the previous seasons which motivated farmers to invest more in coffee production hence the said increase in production. However, from 1997/98, coffee production in Kilimanjaro regions has declined progressively reaching its lowest level in 2002/03 coffee seasons. The decline in production can be attributed to the aging trees, decrease in coffee prices and decline in supply of agricultural inputs which led to the shift from coffee cultivation to other sources of income among the small holder farmers (Ellis, 2000; Mbilinyi, 2001).

The share of coffee produced from the estates has also been fluctuating from the 5,950 tons in 1981/82 to 2,998 tons in 2002/03. Before the liberalisation of coffee marketing, most of the coffee estates in Kilimanjaro were managed by the cooperatives. However, with increasing competition from the PCBs, most of the estates were almost abandoned and their production decreased. The liberalisation of the economy has proved a blessing in disguise since most of the farms have been privatised and are currently being revived to resume production (Baffes, 2003). Probably, in the future, coffee production in Kilimanjaro will be dominated by private owned estates, while the share of the smallholder farmers who have diversified into other income sources is likely to decrease further. On the contrary, Ruvuma and Mbeya regions show a different trend whereby farmers have continued with coffee cultivation despite increasing production cost as indicated in Figure 3.5.

Figure 3.5. Trend of coffee production in major production zones



This thesis aims at investigating why and how farmers in one of these areas, Mbinga, still continue with coffee cultivation despite these the obstacles. Although Mbilinyi (2001) argue that institutional support from Donors (EEC project) in the 1980's and 1990's is the main reason for the expansion of small holder acreage under coffee. However, although in Mbeya and Ruvuma regions coffee farmers are facing the same hardships as those of Kilimanjaro and thus, we would expect them to shift from coffee to other sources of income, the trend of coffee production in these regions has however been increasing, as indicated by figure 3.5. However, the reactions of the coffee farmers in the two regions differ from those of Kilimanjaro. Farmers have not uprooted coffee trees and shifted to other activities, but rather that they have readjusted themselves to cope with the market situation. Comparing the three coffee producing areas, it is obvious that farmers in Kilimanjaro have decreased coffee production as compared to other areas. Probably, market proximity to commercial centres such as Moshi, Arusha and Dar es Salaam, has been a motivation for them to shift to alternative income generating activities.

(b) Coffee Marketing

The effects of economic liberalisation to coffee marketing in three areas show both similarities and marked differences. In Kilimanjaro and Mbeya, cooperatives unions survived the problems while in Mbinga the union collapsed. In Kilimanjaro region, two cooperative unions, KNCU and VUASU survived, although with stiff competition from PCBs. Different reasons have been advanced to explain why KNCU survived. Temu (2002) attributed this to availability of loans to finance crops production and finance from the Kilimanjaro Cooperative Bank, while Baffes (2003) noted the importance of Kilimanjaro region politically and that the government used all its efforts to support cooperatives from influential areas such as Kilimanjaro and Bukoba regions. However, the availability of loans for the buying of crops, and reduction of administration costs are among the reasons mentioned by the leaders of KNCU as to why it survived amidst competition from the PCBs. Even before the liberalisation of coffee marketing, farmers in Mbozi district, Mbeya region, marketed coffee through two cooperative unions in the district, Mbozi Cooperative Union (MBOCU) and Isayura. Despite competition from PCBs, the two unions survived until today and their survival has been attributed to their promptness in paying their debts at the banks and hence continue to receive loans from the said financial institutions.

Likewise, the rates of the emergence and organisation of farmers groups in the three zones are different. As started earlier on, farmers groups have been allowed to sell their coffee direct to the auction. In Mbozi, farmers groups have organised themselves and formed a network called MVIKAMBO, whose objectives is the coordination of the coffee marketing, availability of inputs and facilitating loans from the banks. Probably, Mbinga district in Ruvuma region is among the district that have been affected by the liberalisation of the coffee market. The district-based cooperative union, MBICU collapsed, and the coffee market was dominated by the PCBs from 1996/97 to 2001/02. The 2001 Coffee Industry Act allowed both farmers' groups and AMCOS to market their coffee directly to the market, and thus minimised the domination of the PCBs in

Mbinga. This study is about the changes of marketing systems after economic liberalisation and, will thus focus on Mbinga to explain how farmers have re-adjusted to cope with new marketing situation.

3.4. CONCLUSION

This chapter has presented a historical over view of the coffee marketing structures in Tanzania, pointing out major changes and their impact on the marketing process and livelihoods of the coffee farmers. It is noted that colonial government used three approaches in the marketing of cash crops; first, to allow private agents to perform the marketing functions. On approach that was used by the German colonial government that encouraged the Asians traders to dominate marketing of crops. Second, the British policy of encouraging farmers to forms their own cooperatives that marketed their own crops and third; the British colonial government created marketing boards in order to collect crops from farmers and sell them to appointed trading companies. All these colonial policies did not aim at assisting the farmers, but facilitating the extraction of surplus capital from the colonies.

At this stage, it is imperative to reiterate the fact that the pre-liberalisation era in Tanzania was characterised by the single marketing channel, where the government controlled both the production and marketing of coffee. Liberalisation of coffee marketing has opened up new avenues for coffee farmers to participate directly in the two functions. Likewise, liberalisation of the market of inputs has increased the availability of inputs at any time albeit on a cash basis. It has also resulted in an increase in prices of agricultural inputs which have become unaffordable on the part of farmers. Efforts of introducing inputs voucher schemes have succeeded to some extent, although the responsible organisations have to work hard to close the loopholes that permit unfaithful traders to cheat the farmers. On closer examination of the historical evolution of coffee marketing in Tanzania, one is tempted to say that the government has never had a well–researched and stable policy aimed at the betterment of the coffee industry. Most of the policies were based on trial and error basis, which have negatively impacted the coffee farmers. Liberalisation of the domestic coffee marketing process has also brought about conflict of interests between the government and the PCBs. On one hand, the government has been interested more in collection of taxes imposed on the PCBs rather than supervisions and making sure that coffee marketing is conducted fairly. On the other hand, the PCBs are more interested in purchasing coffee at lower costs possible without assisting farmers get inputs. The results are the present situation whereby farmers persist in their struggle to continue with production of coffee whose prices do not cover the costs of production. For the purpose of this dissertation, the researcher will concentrate on the period from the liberalisation of domestic coffee marketing and especially how different actors of coffee industry in

Mbinga, have re-adjusted, coped with the challenges, their strategies, benefits and impact to the entire coffee marketing in Mbinga district. The following chapter attempts to answer the above posed questions.

CHAPTER FOUR: COOPERATIVE MOVEMENT AND IMPACTS OF ECONOMIC LIBERALISATION ON COFFEE INDUSTRY IN MBINGA DISTRICT

4.1. INTRODUCTION

The collapse of Mbinga Agriculture Cooperative Union (MBICU) in 1996 marked the new era whereby coffee marketing in Mbinga district was dominated by PCBs. The case of Mbinga is different from other major coffee producing zones in Tanzania, where despite stiff competition from PCBs, cooperative unions managed to survive. This chapter is divided into five sections. The first section presents the history of coffee marketing in Mbinga, specifying the reasons that lead to the formation of cooperative unions in the district as well as the collapse of MBICU and how PCBs dominated coffee marketing in the area. Although PCBs paid coffee farmers on a cash basis, they did not support farmers in time of need in the way that unions had done previously. With an absence of credits facilities in the rural areas, there was a mushrooming of black marketing for coffee, popularly know as *magoma* among the Matengo. Selected cases from coffee farmers are herein presented to show the effects of *magoma* to the livelihoods of the Matengo coffee farmers. The second section presents the impact of the 2001 Coffee Industry Act that opened a new avenue for coffee farmers in Mbinga. Though claimed by PCBS as a move to check their dominance, the 2001 Act among others things, allowed both Agricultural Marketing Cooperative Societies (AMCOS) and farmers' groups to sell their coffee directly to the TCB auction in Moshi. Brief accounts of how the 54 AMCOS were regrouped into five zones to facilitate coffee marketing are also discussed. The third section discusses the new coffee marketing arrangements in Mbinga by identifying three types of coffee buyers; PCBs, AMCOS and farmers' groups. Each of these groups is discussed in terms of their services to farmers, strengths and weaknesses. In addition, having discussed all these, the chapter focuses on KIMULI AMCOS, as one of the successful AMCOS in Mbinga that others could follow. The fourth section also identifies and discusses the role played by supporting organisations to facilitate coffee production and marketing; namely, Mbinga Coffee Curing Company Limited (MCCCo Ltd), commercial banks (CRDB and NMB), District Agriculture and Livestock Development Office (DALDO), Techno Serve, Tanzania Coffee Research Institute (TaCRI) and the agricultural inputs stockists. Finally, the fifth section presents the emerging conflicts between district cooperative officers who would like to encourage the strengthening of AMCOS as opposed to the farmers' groups, which have been observed to compete with AMCOS. On the other hand, there are District Agricultural Officers whose activities include promotion of farmers' groups through training. It is argued that cooperative officers should work more to improve performance of AMCOS instead of discouraging the formation of farmers' groups.

4.2. COOPERATIVE MOVEMENT IN MBINGA

Three major problems emerged soon after farmer's increased coffee production, namely non availability of agricultural inputs and problems related to processing and marketing of coffee. Farmers could not sell their coffee neither in their villages nor in Mbinga town and thus, marketing was very difficult and tiresome to coffee growers. Therefore, the emergence of cooperatives was a result of the experience they acquired through selling their produce individually to the middlemen, which they found exploitative, expensive and unprofitable. Thus, the Matengo coffee growers thought of pulling their resources together by initiating organisation that will minimise the costs of transactions. Likewise, the organisation would oversee the growth and spread of coffee cultivation among the Matengo. Agricultural marketing cooperatives were thought to be suitable for this purpose. Furthermore, the cooperative was supposed to assist coffee growers to reap the trade profits that had, for sometime, been monopolised by the Asian traders (Maghimbi, 2002).

4.2.1. Formation of NGOMATI

Songea District formed its first union in 1936, called the Ngoni Matengo Cooperative Union (NGOMATI). NGOMATI was the second cooperative union to be formed in Tanganyika under the 1932 Cooperative Societies Ordinance (Kimario, 1992). Unlike other farmer's cooperatives such as KNPA, the colonial government encouraged the formation of NGOMATI in order to take over the functions that were under the district agricultural department and reduce the costs of administration to the colonial government (Mpangala, 2000). NGOMATI dealt with two cash crops, tobacco which was grown in Songea and coffee that was produced mainly in Mbinga. To be able to facilitate its activities (both coffee and tobacco production and procurement in Mbinga areas), NGOMATI opened a branch in Mbinga. The first branch of NGOMATI in Mbinga was called Ngaka primary society, and was located at the present Kindimba village. Generally, Ngaka was formed to cater for development and marketing of coffee in Matengo areas. It was also formed in order to supervise, to spread and to encourage farmers to cultivate coffee, to facilitate availability of agricultural inputs and to market their produce (Kapinga, 1985).

Although the African growers thought they had improved their crops revenue by having their own organisations, it was the colonial government that benefited more from the organisation. This is because NGOMATI soon took over the activities that were once performed by the colonial agricultural department and thus, reduced administrative costs on the side of the colonial government (Mpangala, 2000). Therefore, the colonial government encouraged the formation of NGOMATI, on the understanding that it would then be easier and cheaper to mobilise Africans to grow cash crops. As pointed out earlier on, NGOMATI was expected to reduce the cost of operation for the colonial government. Furthermore, the 1932 Cooperative Society Ordinance placed the activities of the cooperative unions under marketing boards, which were given monopoly over the export of crops (Ponte, 2002). This was done deliberately so that the government could ensure control of the marketing of cash crops and the appropriation of the surplus thereafter. The dominant role of the marketing boards over marketing of coffee produced by both farmers and estates in Tanzania, inherited from the British colonial government, continued after independence and is still prevails even today.

4.2.2. Formation of Matengo Native Cooperative Union (MANCU)

In 1950s, Mbinga coffee farmers began to realise that NGOMATI was not in a position to deal with their interests of supplying agricultural inputs and marketing of coffee. The Matengo decided to exclude themselves from the Songea District based union, (NGOMATI) and formed their own organisation which came to be known as Matengo Natives Cooperative Union and was based in Mbinga. Various reasons have been given as to why the Matengo decided to form their own union. First, NGOMATI covered both the Matengo of Mbinga and Ngoni of Songea and dealt with both tobacco and coffee, despite the fact that coffee was grown in Mbinga only. The Mbinga coffee growers thought it more economically viable and feasible to form their own union that would be closer and facilitate availability of services such as marketing of coffee and distributions of agricultural inputs to its members (Kimario, 1992). Second, there were constant problems of financial irregularities caused by the management that led to great loss to the union. The Matengo wanted the loss to be paid by the Ngoni but the union leadership forced them to share the burden of paying the debt incurred by tobacco growers (Kapinga, 1985). Thus, the Matengo farmers decided to remove themselves from the district based union, assuming that they would be much better on their own and concentrate only in coffee production. However, the Matengo and their traditional enemies, the Ngoni, have not managed to be joined together into one union and operate successfully (see chapter three).

The first headquarters of the newly formed Matengo Natives Cooperative Union (MANCU) was built at Mkinga, Myangayanga village. The union was formed by three primary societies; Muhagawa (which covered Litembo, Ndondo, Nyasa and Upembe), Ngaka (which covered Kindimba and Mbinga) and Pilikano which covered the Eastern part of Matengo). The basis of MANCU was village-based cooperative unions which were charged with the duty of promoting the growth of both tobacco and coffee through rural co-operative unions (Kimario, 1992). The, primary societies which were affiliated to MANCU were thus given the pioneering role of increasing coffee production in Matengo chiefdom through distributing inputs to members in their villages, supervising production, and processing of coffee at the primary level, so as to meet required standard and finally, to purchase coffee from farmers in their respective villages. MANCU motivated farmers to increase coffee production in the Matengo by supplying them with seed, pesticides and agrochemicals on credit, which was refunded after harvesting and sale of cash crops. Besides, MANCU provided full time agricultural extension officers who supervised the promotion of coffee in Matengo (Mapunda, 1998).

The increase in coffee production corresponded with increasing number of both coffee growers and villages that produced coffee. Thus, it became difficult for a single primary society to serve a large area successfully. Henceforth, coffee growers from various villages called for the formation of primary societies that would serve them better and closely. In 1946, Litembo growers detached themselves from Ngaka primary societies and formed their first primary society called Mhagawa Timbwile, which covered Litembo, Lituru, Pirikano, Hagati, Nyoni, Ukilo, Lituru, Mbuji, and Mahenge areas. In 1956, the respective areas covered by Muhange Muhagawa Tambwile primary society were transformed into independent fully fledged primary societies. Consequently, the increase in coffee production in the Matengo areas went hand in hand with increasing demand for primary societies that aimed at serving the interests and demand of the coffee growers. According to some elders of Litembo and Kindimba villages, MANCU used a three-tier payment system to pay coffee growers. The union paid the first instalment after receiving a loan from the commercial bank. The second payment was executed after selling coffee to the auction. The third payment was used by the MANCU to recover the debts incurred by coffee growers through distribution of inputs on loan basis. After selling coffee to the auction, the union recovered its debs by deducting the amount spent in purchasing inputs before paying the rest of money to farmers (members). However, some of the coffee growers such as Mr. Masikini of Litembo village claimed that by then, the soils were still fertile enough to sustain coffee production without using chemicals fertilisers, and that the chemicals to kill the pests and treating diseases.

4.2.3. Development of cooperatives in Mbinga after independence

After independence, the government wanted to make cooperative societies play a more active role in the development of the country, especially in the agricultural sector and to act as instruments to speed up rural development (Mapunda, 1998; Maghimbi, 2000). Following this directive, the activities of the cooperative unions were extended from those of marketing of cash crops only, and to other activities aimed at development of their members. In 1967, under the leadership of Wenslaus Hyera, the MANCU activities were extended from coffee to other operations, such as shops which sold, among other items, beer, aluminium sheets, and cement. Like all other cooperatives in Tanzania, the newly established MANCU experienced more problems after independence than during colonial time, (Maghimbi, 1990). In 1966, while MANCU was under the chairmanship of Leonard Limka, it faced serious financial problems that resulted to bankruptcy. The reasons given for that state of affairs are that, MANCU had accumulated big debts from the commercial banks and there were no efforts to settle them. Secondly, MANCU took agricultural inputs on loan basis from Indians traders and failed to pay back on time. The Indians traders, after failing to receive their payment as per agreement, obtained a court order and withdrew their money from MANCU bank account. Unfortunately, the money taken by the Indian traders was meant for payment to coffee growers. As a result, MANCU could not pay farmers their second payment of shillings 2/= per kilogram which caused a lot of complaints from coffee growers in Mbinga. As we will see later, the history of bankruptcy of unions in Mbinga repeated itself twenty years later, in 1996, when MBICU faced similar problems and collapsed. Due to changed economic policies the government could not rescue MBICU and left the private buyers to dominate the coffee marketing activities.

4.2.4. Formation of a Regional Cooperative Union (RURECU)

Despite problems that faced MANCU from time to time, it nevertheless continued to facilitate coffee production and the improvement of the livelihoods of coffee growers in Mbinga. By 1972, MANCU had a membership of 12 primary societies that were economically viable (Mapunda, 1998). However, since the government has always been suspicious of cooperatives it had to intervene. Surprisingly, during the same year, 1972, the government, without the consent of the members, merged all three cooperative unions in Ruvuma region; (Tunduru Cooperative Union, MANCU and Ngoni Matengo Cooperative Union) into one Union, the Ruvuma Region Cooperative Union (RURECU) to cater for the development and requirements of coffee and tobacco producers (Mapunda, 1998). The abolition of peoples formed unions and the installation of a regional Union formed by the government were ushered in a process that was to weaken the cooperative movement in Mbinga and other districts. The Matengo coffee farmers were not happy with the abolition of their cooperative union (MANCU) and being somehow forced to join a regional based cooperative union (Ringo, 1995). They still had bad memories of the past experience when such regional based union had failed to serve them adequately, but ended up benefiting the Ngoni of Songea. However, since it was a government decision, the coffee farmers had no alternatives, but to abide to the government decision. Maghimbi (2002) noted that by 1976, cooperatives in Tanzania had managed to build up capital through cash reserves, member's deposits and cash investment in various income-generating activities. However, the government did not learn from its past mistakes and continued with its policies of attempting to control the affairs and activities of the cooperatives in the country.

4.2.5. Abolition of cooperative unions

The years 1975/76 were important for development of cooperative movement in Mbinga and Tanzania in general. First, in 1975 the government, in a bid to implement socialism and self-reliance, announced the villagisation policy, whereby all registered villages would automatically become primary societies (Maghimbi, 2000). Furthermore, the primary societies ceased to exist and instead their activities were taken over by the villages. Secondly, in 1976 all cooperative unions in the country were abolished and their functions were taken over by the crops authorities (Kimario, 1992; Maghimbi, 2000; Banturaki, 2002). Under the new law, villages were supposed to be registered as primary societies and perform all activities that were formally performed by the abolished primary societies. At the village level, the government took over all the activities of the primary societies. Mr. Pilmin Lupogo, who was the secretary of Kindimba village, remembers that the village government took over the management of central pulpers for coffee processing, which was under the Ngaka primary society. He admits that the village government failed to manage it well as it had been as how it was managed by the Ngaka primary society.

4.2.6. Re-installation of cooperative unions

In 1984, the government re-installed region based cooperative unions in the country. In the case of Mbinga, a single cooperative union, the Ruvuma Cooperative Union (RCU) was formed at the regional level to cover the whole region. However, both coffee and tobacco growers were not comfortable with the union, since they were not sure if it could serve both coffee and tobacco farmers adequately. The farmers began to demand separation from RCU and subsequently formed their own cooperative union. The reasons advanced for their separation were; first, that the cost of operation of RCU was too high for farmers to afford, given the fact that the unions are supposed to operate from the deductions from each kilogram of coffee sold through their channel. Farmers in Mbinga felt that it was revenue from coffee that was used to pay for the operational costs of the RCU. Coupled with high operation costs, RCU also experienced some financial irregularities which resulted into extra costs that were passed to farmers to pay. Thus, at the end, high operation costs affected their revenue from the sale of their crops (Ringo, 1995). Furthermore, farmers were against the idea of dumping coffee, tobacco and cashew nut production, all in one cooperative union. It was also felt that the union could not operate and render the services to farmers growing different crops. Experience showed that each crop needs special attention and ample time. For example, inputs for the three crops are different and thus makes it very difficult to coordinate the supply of inputs, collection of crops and their marketing (Ringo, 1995). As a result, the farmers in the three districts demanded to have separate unions for each crop, which would also be closer to the producers and render its services effectively. This was the root cause for split of RCU and formation of three separate cooperative unions each covering producers of a specific cash crop and operating only in one district.

4.2.7. Formation of MBICU

In 1989, coffee farmers in Mbinga formed their own district-based cooperative union, Mbinga Cooperative Union (MBICU). MBICU, with registration number 5,468, was formed in accordance with the Cooperative Societies Act No. 115 of 1991. It was formed by 52 primary agricultural marketing cooperative societies (AMCOS) in order to deal with the production and marketing of coffee (Ringo, 1995; Rutatora, 1999). The formation of MBICU reflected farmers protest over the government's plan to force the Matengo coffee farmers to unite with tobacco and cashew nuts farmers into one union. By forming their own union which was to be based in Mbinga, coffee growers felt that MBICU would deal with only one crop with similar inputs requirements and market and as such it would be in a better position to serve them more adequately (Kapinga, 1998). Thus, MBICU can be said to have been initiated by the Matengo so as to give adequate attention to the supply of agricultural inputs and marketing of coffee.

Experience from cooperative movement in other areas in Tanzania indicate that ethnicity, location and interests of dominant social forces are usually the basis of problems and misunderstandings among the partners. For example, the Matengo and Ngoni could not stay in one union, NGOMATI. It was thus similar forces that forced farmers in Mbinga to exclude themselves from the regional union and form their own union at the district level. As it will be seen later on, the formation of their own unions did not solve the problems of financial mismanagement that are inherent in cooperatives. Although the government has tried so many times to impose cooperative unions onto the farmers, when given a chance, the farmers have always reacted by forming their own organisations which suit their social and economic interests. They have also used their organisations as means of increasing their production and improve their livelihoods.

4.3. OVERVIEW OF COFFEE MARKETING IN MBINGA

4.3.1. Trend of coffee marketing in Mbinga

The trend of coffee marketing in Mbinga depicts the changes of actors in the process of coffee marketing. Figure 4-1 indicates the trend of coffee marketing in Mbinga and changes of actors before and after economic liberalisation. Coffee marketing in Mbinga was liberalised in 1994, when PCBs were allowed to compete with MBICU. In 1996, MBICU collapsed and PCB dominated coffee marketing.

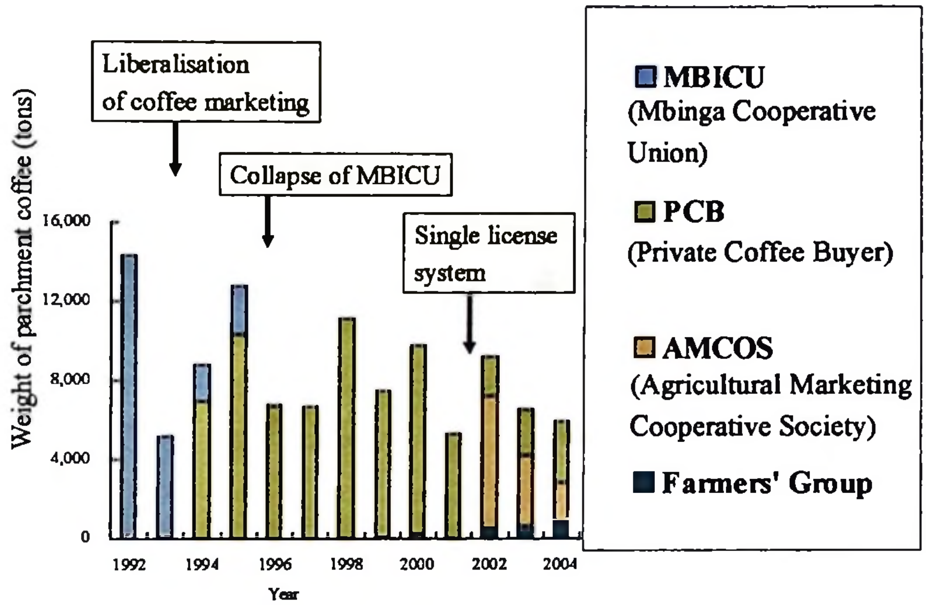


Figure 4.1 Trend of coffee marketing in Mbinga

In 2001, the government introduced the single licence system in order to reduce the monopoly of the PCBs, revive competition and market efficiency. Likewise, it introduced a system of purchasing coffee according to grades. Moreover, AMCOS and farmers groups were allowed to purchase coffee from farmers and sell directly to the auction.

4.3.2. Liberalisation of coffee marketing and collapse of MBICU

The liberalisation of the coffee marketing in Mbinga started in the 1994/95-crop season. Before the 1994/95-crop season, MBICU, like other cooperative unions in the country, had a monopoly of procurement of coffee from farmers. Figure 4.2 indicates the relationship between MBICU and coffee farmers before liberalisation of coffee marketing.

During the era of MBICU, coffee farmers enjoyed three payment systems that assured them of the availability of money in most seasons of the year (Kapinga, 1989; Hill, 2001). The same process has been called 'informal banking' whereby the three instalments payment system was equated to 'indirect banking' on behalf of the farmers (Maghimbi, 1990). The effect of this on the part of the farmers was their inability to budget and instead depended very much on the MBICU for supplying them with agricultural inputs. With liberalisation of coffee marketing, the monopoly of MBICU was eroded. It has been claimed that structural adjustment policies and liberalisation of coffee marketing have contributed to the weakening of the cooperatives by allowing PCBs with foreign sources of capital to compete with weak cooperatives (Maghimbi, 2002). Thus, MBICU, which had a weak capital base and depended heavily on loans from the commercial banks, competed with PCBs. However, the performance of the MBICU before liberalisation was not impressive. There are four main reasons behind the collapse of MBICU. First, MBICU had huge debts from the commercial banks and thus, it was no longer creditworthy. Embezzlement and corruption from the levels of primary societies to the main union (MBICU) were among the reasons which led to failure to repay loans and hence the accumulation of debts year after year (Rutatora, 1999). Failure to get loans from the banks minimised the capacity of MBICU to compete with PCBs who had capital from multination corporations (Ponte, 2002). 1993/94, MBICU did not obtain any loans for procuring coffee from the commercial banks. Nevertheless, in the struggle to survive, it collected coffee from farmers without paying them their money. By 1994/95 October, farmers were still waiting for their money from the previous crop season (Rutatora, 1999).

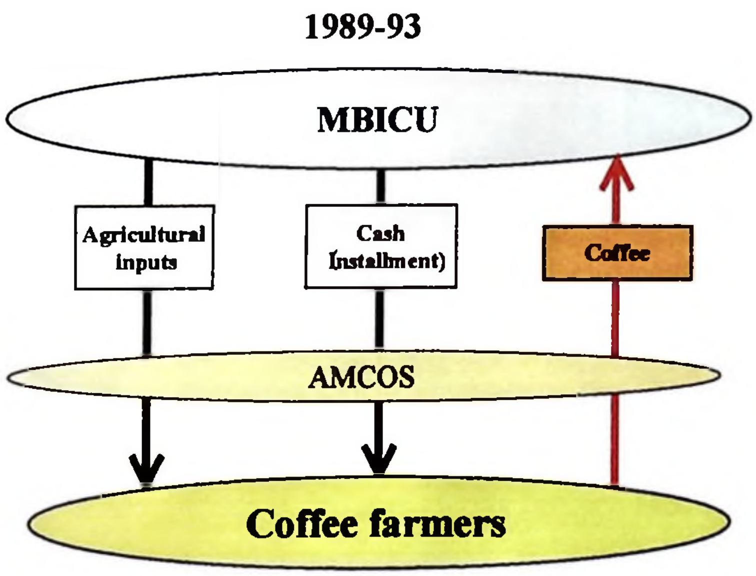


Figure 4.2 Coffee marketing under monopoly of MBICU

Second, MBICU could not build its own independent capital base which resulted into too much dependence on loans from the commercial banks. Thus, huge debts from the banks, private sources and other cooperative operations forced MBICU to sell its entire assets in order to repay the debts. Third, was over-staffing that led to financial difficulties. MBICU as any other cooperative union, was not a business entity, but depended solely on levies collected from coffee sales. It was obvious that it would not be able to support a pool of 250 employees that it had. Fourth, lack of basic education on management of cooperatives could have contributed to the collapse of MBICU. Ringo (1995) noted that some of the committee members of primary societies, (especially Mkalanga, Kalime and Mtua AMCOS) and even coffee farmers had limited knowledge on the management of cooperatives and simple accounts, thus, creating the possibility that they were easily cheated by their management. These were some of the reasons why MBICU became unpopular among the coffee growers in Mbinga (Kapinga, 1998). It was due to the reasons that when PCBs were allowed to purchase coffee in Mbinga, most of the farmers opted for them instead of MBICU. However, even after liberalisation of coffee marketing, MBICU continued to supply agricultural inputs to farmers on loan and paid coffee farmers in three instalments. On the other hand, PCB paid farmers in cash and were not interested in supplying agricultural inputs to farmers. Ironically, in 1994-95, farmers received agricultural inputs from MBICU and sold most of coffee to PCB as indicated in Figure 4.3.

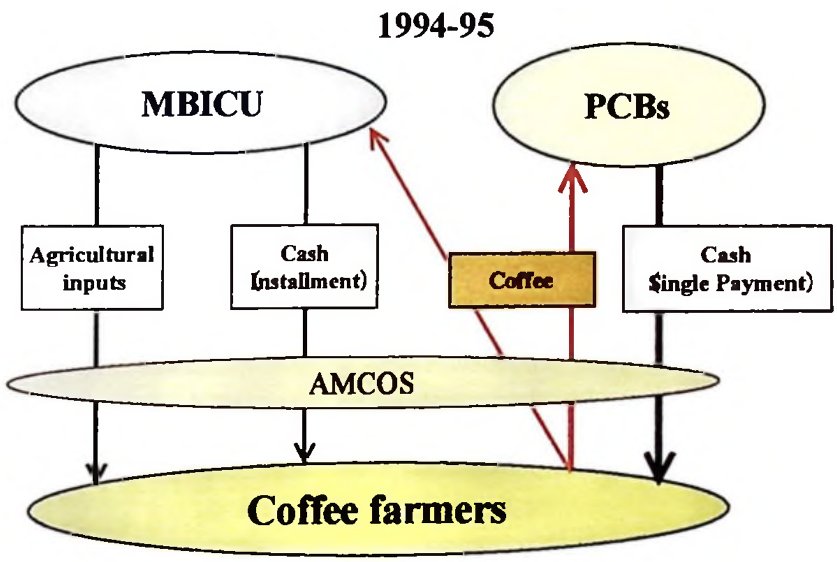


Figure 4.3 Competition in coffee marketing between MBICU and PCBs

Among other sources of finance, cooperative unions and primary societies depend on levy collected from each kilogram of coffee sold through them. Thus, the failure to collect and sell coffee during a particular season means loss of revenue to finance their daily activities. MBICU collapsed officially during the 1995/96 because farmers were attracted to sell their coffee on cash basis to PCBs. As such, MBICU could not collect coffee and its source of finance ceased. After the collapse of the only cooperative union in Mbinga District which was assisting farmers to obtain agricultural inputs on a loan marketing of their coffee, PCBs dominated the coffee marketing chain. PCBs were the only players and were expected to take over the functions of supplying of inputs and coffee marketing. The following section examines the dominance of PCBs and their effect on coffee production in Mbinga.

4.3.3. Coffee marketing under the dominance of PCBs

The decision of the government to pull out and leave the coffee prices at the mercy of market forces motivated the PCBs to form a monopoly and set prices which cooperative unions could not compete with. This together with, the collapse of MBICU marked the beginning of the domination of the PCBs in coffee marketing as indicated in Figure 4.4.

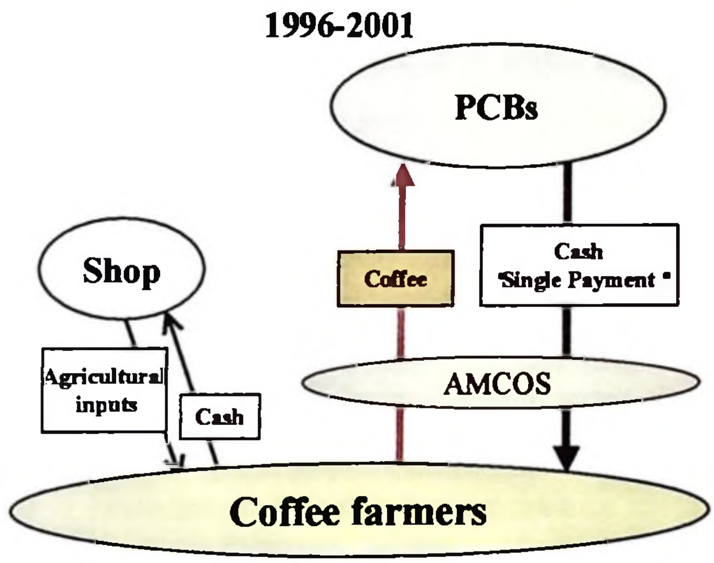


Figure 4.4 Coffee marketing during the dominance of PCBs

Figure 4.4 shows the dominance of PCBS in coffee marketing in Mbinga from the 1996/97 to the 2000/01 coffee seasons. It also indicated that PCBs purchased coffee from farmers in cash without availing agricultural inputs and credits to farmers. In this system, farmers had to purchase agricultural inputs by themselves from the shops located in Mbinga town. However, it was not easy for farmers to change from the system of obtaining agricultural inputs on loan to that of purchasing in cash by themselves. As such, farmers experienced several difficulties in obtaining agricultural inputs for their coffee. However, while PCBs dominated coffee marketing in Mbinga, there were several problems in the global coffee marketing such as decline of coffee prices, increase in prices of inputs which affected the costs of production. These problems affected coffee productivity and livelihood of the coffee farmers as will be discussed in the next section.

4.3.3.1. Supply of agricultural inputs to the farmers

As pointed out earlier, MBICU used to supply agricultural inputs to farmers on a loan basis. Thus, the collapse of MBICU brought about the gap in inputs supply. Coffee farmers were obligated to purchase the agricultural inputs on cash by themselves. This is because the PCBs were not interested in taking over the supply of agricultural inputs services after collapse of MBICU.

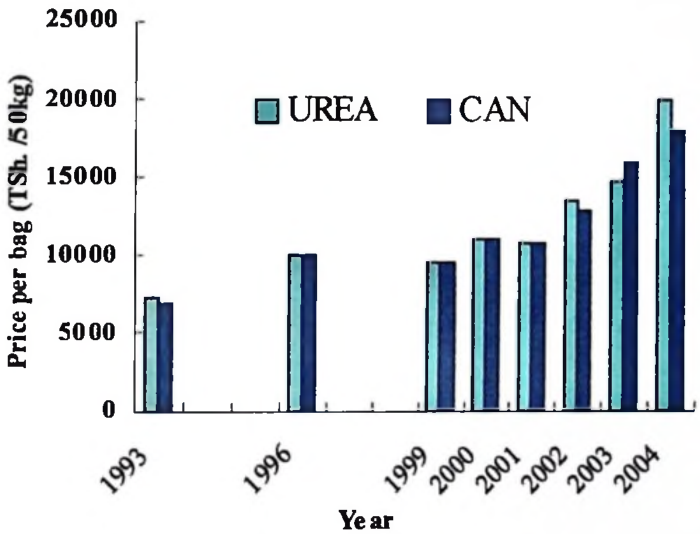
Consequently, PCBs in Mbinga, like in other places in Tanzania, were interested only in the purchasing coffee and not the distribution of inputs (Ponte, 2002: 84). This is a function of the complications inherent in the distribution of inputs offered on credit and subsequent pilling debts. PCBs had learned from experience of MBICU in 1994/95 when the latter distributed inputs to farmers on credit. Ironically, farmers sold coffee to PCBS and MBICU could not recover its debts (Ringo, 1995). Therefore, most of PCBs were only interested in making profits by collection coffee from farmers. As a result, provision of inputs on loan basis in the district collapsed. To some extent, the distribution of agricultural inputs to coffee farmers on a loan basis was complicated by the Cooperative Societies Act of 1991 as well as economic liberalisation which allowed farmers to sell their crops wherever they like. Under a single marketing system, farmers were obliged to sell their crops to their primary societies in their areas to which they were members. However, with 1991 Act, farmers became free to sell wherever they wanted and thus, made it difficult for both unions and even private traders to recover their inputs loans (Temu, 1999). On the other hand, PCBs private traders could not commit themselves to the provisions of inputs since they were not sure if they would operate in the same district the following year and in the end, private buyers in Mbinga opted to provide very few inputs and at the same time purchase as much coffee as they could (Ponte, 2002). Failure to get inputs threatened coffee production, as the statement by Mr. Casmil Ulumus Lupogo (83) of Kindimba village indicates as follows;

> PCBs buyers assisted coffee growers by paying us on cash. We were tired and frustrated by the cooperatives, which collected our coffee, paid us very little and at the time they wanted to. Sometimes, we used to wait for more than 6 months before we received our payment. The free market was like opening the other avenue for us. We sold our coffee on cash, and got large amount of money on time. However, the Matengo farmers were not used to manage finances and all this money made some of us crazy. We spent all our money on luxurious goods; some bought second hand cars which could not be maintained. Others bought diesel milling machines, almost after every tenth cell leader, for example at Kitunda sub village in Kindimba village, there were almost 34 diesel-milling machines that ended up being almost used domestically. Worse still, private buyers were only concerned with purchasing parchment coffee and not production, and thus, did not help us to get inputs. Thus, we are now realising our mistakes of supporting the private buyers at the detriment of our own coffee growers' cooperative union. We wish we could initiate another organisation that will cater for our demands, but is should not be as corrupt as MBICU.

As we have learnt from the proceeding sections, the problems of supply of inputs have been further exacerbated by liberalisation of both coffee marketing and inputs supply. Thus, the supply of inputs in Mbinga decreased during the times when PCBs dominated coffee marketing. Coupled with decreasing supply of inputs, the situation was complicated further by the removal of subsidies on inputs, which increased prices as will be explained in the next section.

4.3.3.2. Increasing prices of agricultural inputs

Economic liberalisation forced the government to remove subsidies on agricultural inputs, which resulted to sharp increase in their prices (Ponte, 2002). In Mbinga, prices of chemical fertilizers increased twice from 1993 to 1996/97 seasons, as indicated by Figure 4.5.



CAN: Calcium Ammonium Nitrate

Figure 4.5 Changes in prices of major chemical fertilizers in Mbinga town

Several reasons have been given for the increase in prices in 1996/97. First is that in 1992/93, the government allowed private dealers to import inputs which resulted to stockpiles and thus, forced some of them to stop importation of inputs during the subsequent years (Ponte, 2002). Second was the complete removal of subsidies on inputs by the government in 1994/95 (Mwakalobo, 1998). All these factors resulted into the sharp increase in prices of inputs, which continue to increase to date. The farmers in Mbinga were used to spend their coffee revenue for investment or purchasing assets during a short time instead of managing it throughout the year. As such, low income, limited experience on management of capital, and the high prices of agricultural inputs affected coffee cultivation, which in turn resulted in decline in coffee productivity. Figure 4-6 indicate the trend on coffee production before the collapse of MBICU, after the entry and domination of PCBs and the present situation.

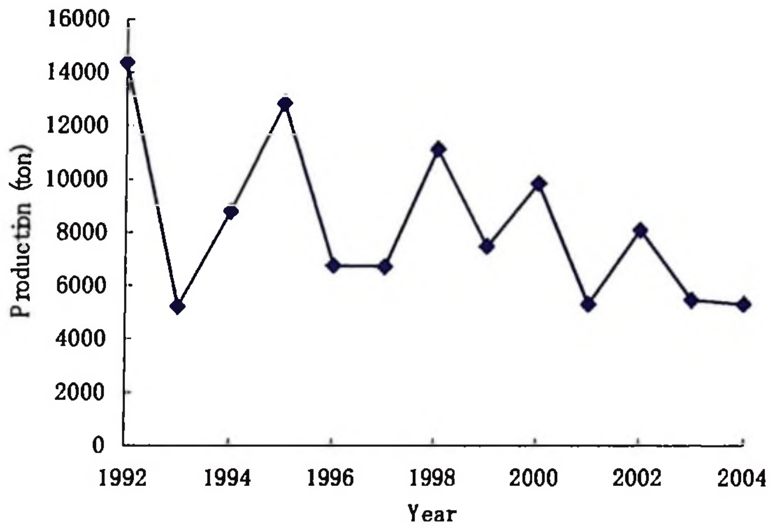


Figure 4.6 Trend of coffee production in Mbinga after economic liberalisation

It indicates that coffee production increased in 1994/95 and in 1995/96. This was because of the effects of frosts in Brazil which created a shortage of coffee in the world market and hence increased prices which motivated farmers to increase production. In, the 1994/95 coffee seasons, MBICU was struggling to maintain its market share and hence supplied inputs to farmers to discourage them from selling coffee to the PCBs. Thus, the decline in production from 1995/96 was the result of the inability of MBICU to pay coffee farmers which eroded their ability to purchase inputs and hence decreased production. In the 1996/97 and 1997/98 seasons, PCBs dominated coffee market without supplying inputs and thus, farmers were discouraged from increasing production. However, the prices offered in the 1997/98 (Tshs. 1,110 per one kilogram of parchment) were the highest and motivated farmers to increase production in the 1998/99 seasons. The above stated development notwithstanding, however, coffee prices collapsed to almost half in the 1999/2000 seasons and this resulted in the decline in coffee production. The results of marketing liberalisation in Mbinga differs from conclusions reached by Ponte (2002) who claimed that market liberalisation in producing countries had resulted in high levels of buyer's competition and that farmers are paid higher prices than before. While farmers in other producing areas might have benefited from market liberalisation, this was not the case for farmers in Mbinga where the domination of PCB resulted in the collapse of prices as well as failure to distribute inputs. This is attested by Ellis (2000) who argues that in the case of Mbinga, devaluation of exchange rates and economic reforms have failed to increase the prices farmers receive for their coffee.

4.3.3.3. Decline in coffee prices

After the liberalisation of coffee marketing in Mbinga, there was a temporary increase in prices of coffee in Mbinga due to, first, low production due to outbreak of a draught in Brazil in 1995/96 and secondly, by El Nino rains in 1997/98 as shown in Figure 4.7.

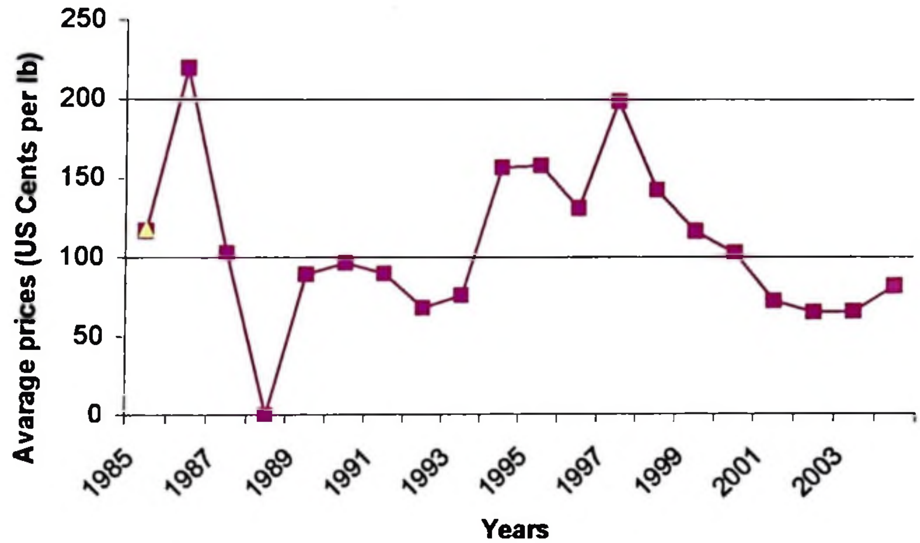


Figure 4.7 Trend of prices of Mild Arabica coffee at farm gate in Tanzania.
Source: ICO homepage (http://www.ico.org/frameset/priset.htm access on 15/02/2005)
NB: Data for 1988 seasons was not available.

Thus, while the prices of coffee in Tanzania and Mbinga tended to increased, this did not result in an increase of the income for coffee farmers in Mbinga because their coffee trees had been seriously damaged by El Nino induced rains of 1997/98. While the prices of coffee did initially increase in the 1997/98 coffee seasons, this increase was not sustainable, because from 1998/99 seasons, the coffee price decreased gradually to their lowest level which in turn lead to the erosion of the revenue accrued from the sale of coffee and their ability of the farmers to manage their coffee farms.

4.3.3.4. The Emergence of black market for coffee (magoma)

Black-marketing of coffee, or '*magoma*' as it is populary known in Matengo is an informal marketing of coffee beans which takes place during times of economic hardships (Rutatora, 1999). In most cases, an individual goes for '*magoma*' when all means available to him to get money have failed and he/she decides to borrow money from another person on the promise /agreement to pay back the loan through dry coffee beans. '*Magoma*' can only take place if the person who wants to borrow money has a coffee farm, which must be inspected by the respective lenders to make sure it will yield enough coffee to cover the debt. According to Rutatora (1999), reasons why a coffee grower would opt for *magoma* include; payment for medical and school fees, payment of bride price, performance of a ceremony, or for the purchase of maize after a poor harvest. Accordingly, *magoma* practice can be divided into two major parts; *magoma* A i.e. the practice of selling coffee even before harvesting and *magoma* B which occurs when farmers sell coffee after harvesting in the form of parchment. According to the coffee growers, failure of MBICU to pay farmers for coffee collected in 1995/96 and its subsequent collapse are the major reasons for the emergence of illegal marketing of coffee *(magoma)* in Mbinga from 1996 to 2002 when it was stopped by the government. However, Kato (1995) notes that *magoma* became popular among the Matengo farmers from 1989 when MBICU failed to pay farmers on time. Thus, it is obvious that black marketing for coffee thrives whenever there is failure to pay farmers for their coffee in time.

From the proceeding observations, it can be deduced that black market for coffee was caused by a combination of factors that have occurred since liberalisation of the economy. The pre-liberalisation arrangements had assured farmers of a tri-annual distribution of income. It is important to also note that coffee income is seasonal, which means, if spent within a short time, farmers will have no income for a significant part of the year. Moreover, although PCBs purchased coffee on cash basis, farmers were not used to this system and ended up spending their money in a short period, leaving them without reliable income for most part of the year. Therefore, illegal marketing of coffee in Mbinga, was among other things, caused by the collapse of the three-tier payment system that had distributed payment to farmers in such a way that farmers were assured of having an income for a large part of the year. Also important to take note is the fact that, although PCBs paid farmers cash for their parchment coffee, they neither helped farmers in obtaining agricultural inputs, nor extended their coffee payment over time like cooperatives.

While Kato (1995) and Rutatora (1999) asserted that the illegal-marketing of coffee had been noticed in Mbinga and Tanzania long before economic liberalisation, *Magoma* thrived after economic liberalisation, when PCB monopolised coffee marketing. Ponte (2002) noted that SAPs forced the government to introduce user fees in social services (medical services, school fees, water) and thus, increased the demand for cash income in the villages. At the same time, the old system of three-tier payment and distribution of inputs on loan collapsed. Without any financial support during the lean months, farmers had no option but to opt for *magoma*. The following statements by two coffee growers in Mbinga may help to explain why farmers opted for *magoma* and how they have managed to pay back the loans.

> Farmer A is 61 years old (2003) and lives in Kindimba village. He own 1,800 coffee trees, divided into three different plots, all located in Kindimba sub-village. He is one of the victims who sold their coffee to MBICU in 1995/96 and was not paid. Since coffee was the major source of income for his household, he had no other choice except to borrow money. He leant that there are people from whom he could borrow money, and repay them with dry beans of

coffee after harvesting time. On January 1997, he approached villager B and borrowed Tshs. 30,000. He used Tshs. 20,000 for purchasing inputs (blue copper and Sumithion for his coffee plot. Furthermore, he used the remaining Tshs. 10,000 for payment of medical services for his wife at Litembo Hospital. Having finished all the money, he still needed to apply fertilisers to his coffee farms so that he could produce excess coffee to enable him pay the debt. He approached again the Villager B again and borrowed Tshs. 30,000 and purchased 3 bags of fertiliser. By March 1997, he had a shortage of food in his house and borrowed another Tshs. 10,000 from Villager C and agreed to re-pay the loan with one bag of dry coffee. Thus, with 1,800 coffee trees, he could not harvest coffee without external assistance and thus, he approached again Villager B and borrowed Tshs. 20,000 for payment of hired labourers. Lucky enough, it was good season, since he harvested 30 bags of parchment coffee, paid 9 bags and remained with 21 bags.

The above is just one example of a villager who managed to use *magoma* to solve his problems, paid his debt and remained with a profit. For this farmer, *magoma* was useful, although the interest rate was very high. As mentioned earlier, limited credits opportunities in the rural areas during the time of hardships, is among the contributing factors for people to opt for *magoma*. It did not take the shape of cash only. It was possible to take fertiliser loans and pay back through dry coffee. Furthermore, there are examples of villagers who took *magoma* and ended up losing their coffee trees after poor harvests that resulted into low yields as illustrated in the following narative.

Farmer B is 39 years old (2003) and lives in Kitanda village. He has 1130 coffee trees and a household with 11 people. He started to engage himself in *magoma* back in 1995, when his child needed medical treatment at Litembo Hospital, in Mbinga. In December, he borrowed 10,000 and paid for treatment. January and February was the time for him to apply fertiliser it in his coffee farms. Since he could not purchase it with cash, he borrowed 2 bags of urea fertilisers and applied into his coffee farms. After harvesting on July-August, he paid one bag of dry coffee to Villager B and one and half bags of dry coffee to Villager C for fertilisers. The remaining part was not enough for him to purchase inputs for the following season and thus failed to take care of his coffee farm the following season.

There are also cases of villagers with family members who were sick for long time and thus, without reliable income, opted for *magoma*. However, the loans from *magoma* were not used for productive activity and thus, resulted to an economic loss for the farmers; although they solved their domestic problems.

Farmer C, a resident of Kindimba, at Kipololo, is 55 years old (2004). In 1999, he borrowed 20,000 shillings for medical treatment and purchasing maize, agreeing that he would later pay 2 bags of parchment coffee. However, failure to use agricultural inputs resulted to poor harvest and as such he could not pay his debt. Failure to pay his debt cost him a part of his coffee trees (650 trees), which have been confiscated. To get back his coffee trees, he will need to pay Tshs. 100,000. However, his income is too low and so far he has failed to reclaim his coffee trees.

One thing in common among all the above borrowers is that they all agreed that *magoma* assisted them during times of need when there was not any other kind of assistance. However, they agreed that the system is too exploitative and detrimental to their farms and livelihoods. This is because after paying part of their coffee harvest to *magoma*, and using the remaining part for other expenses, the farmers are usually no longer able to purchase inputs for the next season which leads to reduction in actual investment in coffee production. However, there is a possibility that those who lend money to others and end up taking over the farms may actually manage to take care of farms better and thereby increase productivity. Probably, there is a need of conducting research to determine if those who took up other villagers' farms managed to increase their productivity. Having discussed the impacts of the market liberalisation to the livelihoods of coffee farmers in Mbinga, the next sections focuses on the attempts of the government to rectify the weakness noted and steps to alleviate the situation and improve the coffee marketing system for the benefits of coffee farmers in Mbinga.

4.4. THE IMPACT OF 2001 COFFEE INDUSTRY ACT IN MBINGA

4.4.1. Background to formation and zoning of the AMCOS

The present coffee marketing system in Mbinga developed as a result of the changes brought by the 2001 Coffee Industry Act. As pointed out in chapter three, the Act among other things, prohibited ownership of multiple licences in coffee trade and as a result, most of the PCBs who had dominated coffee marketing in Mbinga from the 1996/97 to 2000/01 coffee seasons decided to engage in the purchase of coffee from the auction which they exported. In this way, the 2001 Act, to some extent managed to limit the domination of the PCBs in coffee marketing, although it created a gap in areas like Mbinga where cooperative unions had collapsed. Thus, the situation in Mbinga was different from other coffee growing areas in Tanzania where cooperative unions still functioned, though not very efficiently. Thus, there was a general sense of fear among the coffee farmers and the district authorities that the withdrawal of PCBs would affect the marketing of coffee for that season. When the coffee marketing season was opened in August 2002, only one private coffee company, applied for the licence of purchasing parchment coffee. Necessarily then, the district authority had to do something to assist farmers market their coffee.

The 2001 Coffee Industry Act allows farmers to market their coffee via primary societies or organised groups of coffee farmers. Despite the collapse of the district-based cooperative union, MBICU, most of the AMCOS survived, although most of them operated as coffee collecting agents of PCBs. Thus, farmers were motivated through their AMCOS to market their coffee at the auction. All 54 AMCOS in Mbinga were divided into five zones according to their location. Location of one AMCOS proximate to others (to facilitate communication) and leadership were important criterion for selection which AMCOS should be a headquarters of all AMCOS in one zone. Likewise, zones were named after the AMCOS of the selected headquarters. Out of 54 primary societies in Mbinga, five AMCOS with strong leadership were selected to represent the rest. Names of fives zones which were formed include KIMULI, Malindindo, Pilikano, Mahenge and Luwaita. However, in the course of three years, various problems have emerged which necessitated the number of zones to be increased as shown in the figure 4.8 below.

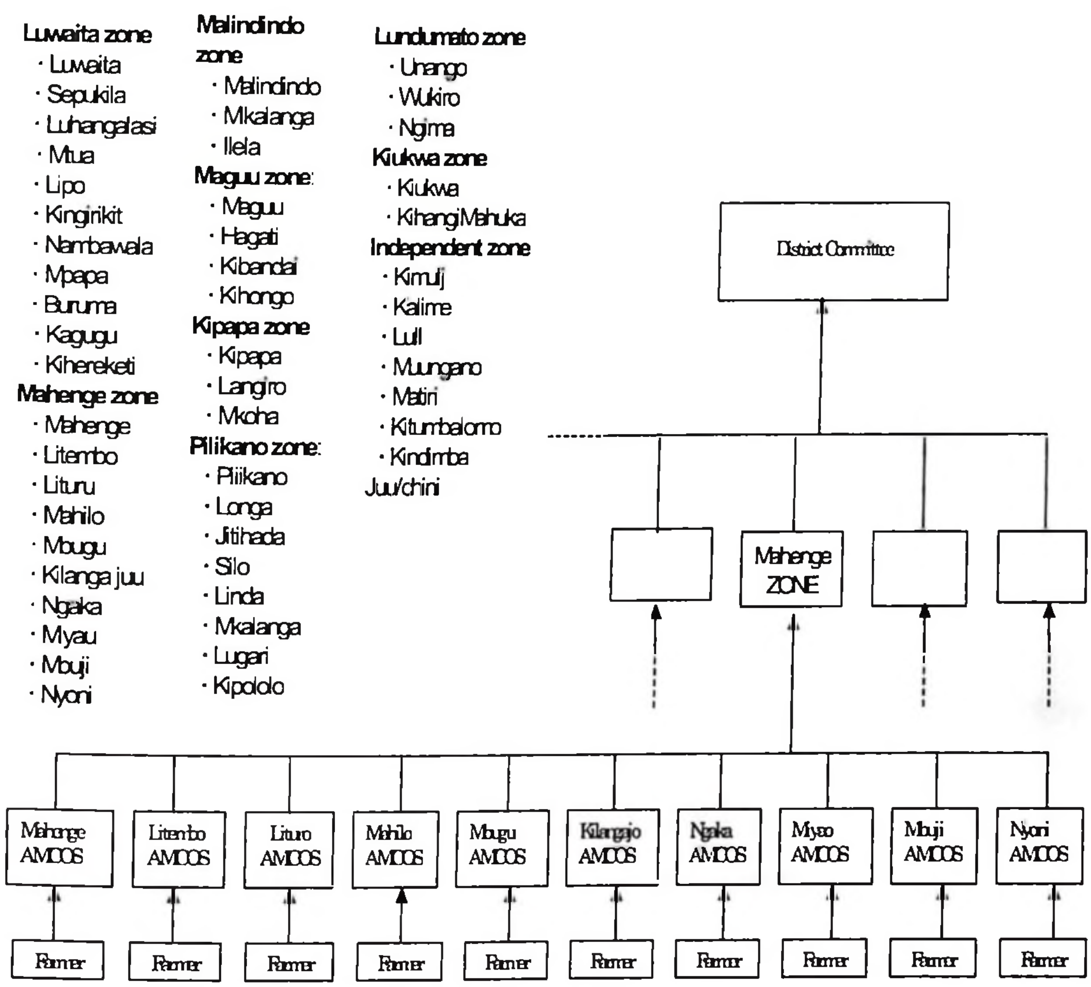


Figure 4.8 Coffee production zones and AMCOS in Mbinga district

PCBs dominated coffee marketing from 1996/97 to 2000/01. At the same time, most of AMCOS received their revenue by acting as agents of collecting coffee for the PCBs. Since collection and marketing of parchment coffee requires initial capital, lack of capital among the AMCOS definitely hindered them form collecting coffee and marketing it on their own. To solve that problem, the district authorities formed a committee to investigate the matter and come out with solutions on how AMCOS could collect parchment coffee from farmers. Thus, there was an obligation to assist farmers to market their coffee so as to sustain coffee production in the forthcoming seasons. Probably, all the attention and concern centres on coffee because of its contribution to the revenue of the district council. The committee managed to collect initial materials from two PCBs that were closing their offices in Mbinga, while stationeries were collected from the liquidated MBICU. Other assistance came from the Ruvuma Regional weigh station which agreed to inspect, on loan, all coffee weighing machines and lastly the CRDB agreed to give loans to AMCOS. The functions of the committee have not changed much in the last three years of operation. The said functions include: searching for bags for collecting coffee from the village to the auction, and export bags, logistic arrangements for transport coffee from the villages to the curing factory in Mbinga, liasing with the MCCCo Ltd. in transporting coffee from the factory in Mbinga to the Makambako warehouse.

Collection of coffee by AMCOS in 2002/03 seasons started from September, which is later than normal. Probably, two private sister companies, which managed to collect a large share of coffee during that season utilised the absence of other PCBs and the late coming of the AMCOS. Data from DALDO shows that one PCB purchased 5,107,319 kilograms while the sister company, purchased 700,003 kilograms as opposed to the entire district annual coffee production. However, coffee marketing, as any other profitable business, involves competition. Reviving and empowering of the AMCOS became a threat to the PCBs. As we will see later on, PCBs employ different tricks to prevent AMCOS and emerging farmers groups from prospering.

The proceeding section briefly discussed the effects of the 2001 Coffee Industry Act for Mbinga and how it has affected the licensing of the PCBs as well as empowering the AMCOS to market coffee directly to the auction. The following section indicates the manner in which the new coffee marketing channels in Mbinga (from the 2002/03 coffee seasons) operates.

4.4.2. Mechanisms of new marketing system in Mbinga

In 1990, the Tanzanian government introduced a new investment policy which opened doors to foreign capital and encouraged indigenous Tanzanians to invest in productive activities (Nangu, 2001). The investment policy put an end to the public ownership of major means of production and encouraged private ownership. Among the sectors of the economy that have been affected by the liberalisation of the economy and hence attracted foreign investment were commercial banks, which were owned and controlled by the government. The enactment of the Banking and Financial Institutions Act of 1991 marked an end of the government monopoly in the banking industry and opened the sector for private investment. Thus, commercial banks (CRDB (1996) Ltd and NBC), which used to offer credits to cooperatives unions were privatised and started operating like any other commercial banks (Cooksey, 2004). The privatisation of the banks has a direct impact to the system of issuing loans to the cooperative unions, since the banks introduced new regulations in order to operate commercially. Under the new regulations, termed 'warehouse coffee receipt system', cooperative unions and primary societies are required to deliver coffee to the curing factories before a part of the loan that corresponds to the amount of coffee is authorised. CRDB has used this system to facilitate coffee marketing in Mbinga in the last three seasons.

The warehouse coffee receipt system operates in the following way; the amount of money issues initial corresponds to 60 percent of value of coffee at the auction. For example, under the arrangements of warehouse coffee receipt system in the 2004/05 coffee seasons, one kilogram of parchment coffee is valued at Tshs. 450 when delivered at the curing factory. Therefore, it was agreed that initial payment should be 60 percent of Tshs 450, which was estimated as the value of coffee at the auction. However, the value of the parchment coffee at the auction increased from estimated Tshs 450 to Tshs. 560 and as a result, the initial payment increased from an estimated Tshs. 300 to Tshs. 336. Thus, AMCOS on its own cannot decide how much it should pay to the farmers without consulting the CRDB. Moreover, the payment is the function of the value of coffee at the auction, which is beneficial to the CRDB which make sures that AMCOS will managed to pay back their loans and, AMCOS which are sure that they will manage to sell coffee at the auction, pay the farmers and the loan.

After receiving coffee, MCCCo Ltd acts as the collateral manager by informing the CRDB the amount of coffee delivered by certain AMCOS. After receiving this information, CRDB on its part will release the money, 60 percent of the Tshs. 450 (Tshs. 300) that will be paid to farmers as first payment. Through this way, the bank is assured of payment of its loan. Thus, MCCCo Ltd has a very important role in facilitation of transactions between the AMCOS, farmers groups on one hand and CRDB bank on the other. Therefore, liberalisation of the commercial banks has brought efficiency in reducing the risks on loan on the side of the commercial banks since loans are released only after assurance that coffee has been delivered to the curing factory and will be auctioned. Figure 4-9 indicates the new coffee marketing system for AMCOS and a special case taken from one AMCOS whose CPU is under the management of MCCCo Ltd.

In addition, Figure 4.9 indicates movement of coffee from the farmers to the auction and movement of money from the auction to farmers. Accounts given below explain the movement of coffee and money (payment to farmers). The figure indicates that;

1: A farmer produces coffee and markets it as parchment to AMCOS or as cherries to Ngaka CPU, which is managed by MCCCo Ltd.

2: AMCOS collect parchment coffee from farmers and sends it to MCCCo Ltd in Mbinga town for curing. At the sometime, Ngaka CPU collect cherries from farmers, process it into parchment coffee, and sends it to MCCCo for curing.

3: Parchment coffee is measured, checked for quality and received at the factory. MCCCo acting on the capacity of collateral manager, send a report to the CRDB in Songea, pointing out the amount of coffee received at the factory.

4: After receiving report of coffee delivered at the factory, CRDB releases the initial payment, equivalent to 60 percent of value of coffee at the auction. Money is sent it to Mbinga National Micro Finance Bank.

5: NMB releases the money to the relevant AMCOS and MCCCo Ltd.

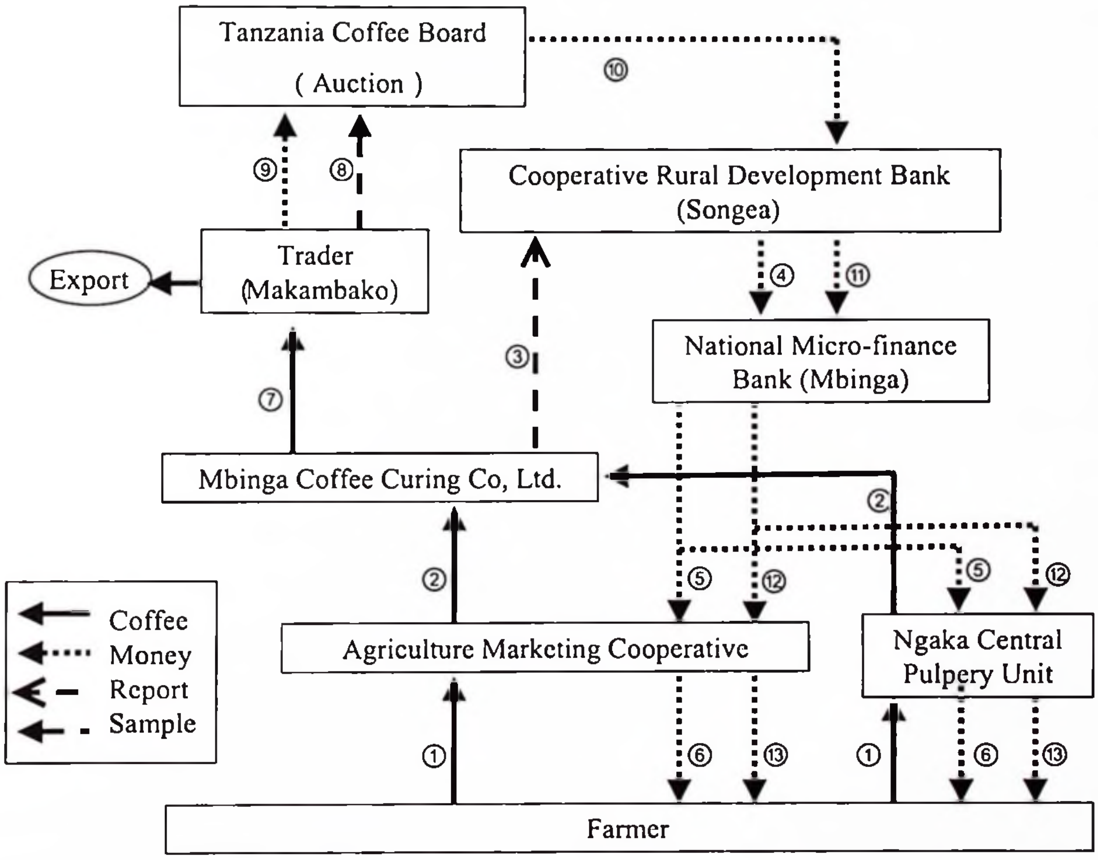


Figure 4.9 Coffee Marketing route in Mbinga: AMCOS and Ngaka CPU

6: AMCOS pay farmers their first instalment, while for the case of Ngaka CPU, MCCCo releases money to Ngaka CPU, and pays farmers their initial payment. It is estimated that it takes two weeks for farmers who have sold their coffee via AMCOS to receive their first payment.

7: MCCCo Ltd cures coffee parchment to green coffee and owners that are AMCOS and Ngaka CPU transport it to Makambako transit warehouse. From the villages to Makambako, coffee is owned by AMCOS on behalf of farmers. Likewise it is AMCOS that are responsible for transporting coffee from the villages to Mbinga for curing and thereafter to Makambako for exporting.

8: Makambako transit warehouse prepares a catalogue of green coffee and sends sample to the TCB auction in Moshi. 8b: TCB distributes samples of coffee to licensed exporters for testing and verification before auctioning.

9: After the auction, exporters pay for the coffee purchased into the accounts of TCB. (Transaction is not done from the exporters to the owners of the coffee, but rather from exporters to TCB). Payment is made into the accounts of TCB to facilitate deduction of TCB and research cesses as well as and government taxes. It is estimated that it takes about 6 to 8 weeks from the time a farmer harvests his coffee to the time of auction. Likewise, exporters are required to collect coffee from Makambako depot and transport it either by railways or by road to Dar es Salaam port.

10: TCB deducts levy, value added tax, research cess and deposit the rest of the money (in USD) to CRDB, which also will deduct its loans and deposit the rest of the money in the accounts of AMCOS. At first, the CRDB deducts it costs (principal, interest and other charges) and will pay the remaining to the accounts of the Zones. It a mandatory that all 7 AMCOS Zones and independent AMCOS to have both local and foreign currency accounts at the CRDB Songea Branch. This is because, first, coffee is auctioned in United States dollars and payment to CRDB and AMCOS is done in dollars; secondly, CRDB Songea is the closest Branch from Mbinga and thus, having both accounts facilitates money transactions from TCB to farmers.

11: CRDB sends money to NMB in Mbinga (payment is done through the two banks for security purpose, and thus, NMB acts as the transit bank.

12: NMB deposit money into accounts of AMCOS zones. However, payment from accounts of the zones to AMCOS is done by local currencies while payment from AMCOS zones to individual AMCOS and to farmers is done by either using cheques or cash. On the other hand, NMB deposits money to the MCCCo Ltd account, which will be transferred to Ngaka CPU. 13. Both AMCOS and Ngaka CPU pay farmers the second and third payments, although at different time depending on the arrangements of a particular AMCOS. Likewise, the amount paid may differ from one AMCOS to another depending on the prices fetched at the auction. Before paying farmers, AMCOS deducts its initial costs incurred during the collection and transportation of coffee and pay farmers the rest of the money. In most cases, most of the farmers prefer to be paid in cash, since banking facilities are not available in the villages and it is inconvenient and expensive for them to travel to Mbinga town for cash.

However, although warehouse coffee receipts system has empowered AMCOS to participate in coffee marketing, it forces AMCOS to purchase coffee on a loan basis that placed them in a disadvantageous position as compared to PCBs buy coffee on cash. On the other hand, the coffee receipt system has been very effective for the CRDB, which is assured that the loans advanced is used into intended activities and thus, ensure that AMCOS will pay back the loans.

Having seen the new coffee marketing systems for AMCOS and Ngaka CPU, Figure 4.10 indicates the coffee marketing route for farmer's groups and PCBs. Although one farmer can sell coffee to more than one route, for the case of clarity farmers have been divided into three different groups, according to their marketing routes.

1. A farmer sells his coffee either in the form of cherries to PCB (A), or sells coffee as parchment to PCB (B). Likewise, he may sell coffee in the form of parchment through his group, supported by either MCCCo Ltd or a NGO. Modes of payment differ from one marketing route to another.

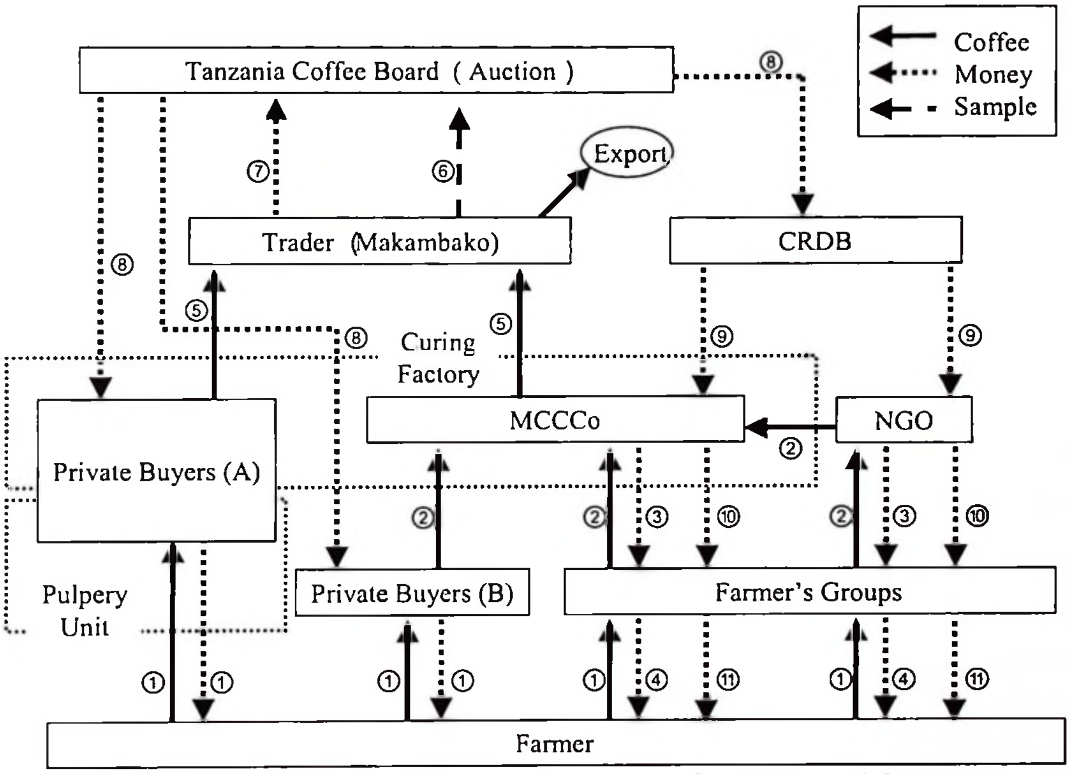


Figure 4.10 Coffee marketing route in Mbinga for PCBs and farmers groups

For the case of farmers who sell parchment coffee to PCB (B), payment is done on cash basis, and those marketing their coffee as cherry to PCB (A) payment is on weekly basis.

2: PCB (A) processes cherries to parchment into its own pulpers unit and sends it for curing to its own curing factory in Mbinga town. On the other hand, PCB (B) and farmers' groups supported by MCCCo send parchment coffee to MCCCo Ltd for curing. However, farmers' groups supported by NGO send coffee to the office of the NGO, which sends it for curing at MCCCo Ltd. (coffee collected from various farmers groups is marketed under one name).

3: NGO release the first payment to farmers' groups, by using its own sources of funds (to be repaid later after the auction).

4: Groups pay farmers their initial payment, based on the quantity contributed by each member. However, the mode of payment for farmer's groups also differs; for farmers' groups supported by

NGO, payment is done after coffee has been collected and received at the office; while farmers groups supported by MCCCo, payment is done after the auction.

5: PCB (A), process coffee from cherries, parchment and cures it to green coffee in their own facilities and transport it to Makambako warehouse. Likewise, the MCCCo Ltd process coffee from parchment to green coffee, and the group pays for transport costs to Makambako warehouse (coffee still belongs to the one who bought it from the farmers until it is auctioned).

6: Makambako warehouse prepares a catalogue of coffee and send it to TCB, for verification and then classified further into 17 classes. After classification, three weeks before the auction, TCB sends samples to licensed exporters for final verification.

7: The exporters purchase coffee from the auction and pay into TCB accounts. Thereafter, exporters collect coffee at Makambako warehouse and export it.

8: TCB pays the owners of the auctioned coffee in two ways. First payment may be made directly into the accounts of PCB (A) and (B). Payment to PCBs is directly since most have different sources of finances. Secondly, TCB deposits payment into the accounts of CRDB, which deducts it costs on loan (principal, interest and other charges).

9. CRDB deposits the remaining amount of money into the accounts of NGO and MCCCo Ltd, in which both deduct the expenses they have incurred during the initial operations (collection of coffee, transport, purchasing of export bags, and curing costs).

10: NGO and MCCCo Ltd pay the rest of the money to the farmers groups.

11: Farmer's groups distribute the payment to their members. While payment to farmers groups supported by NGO is done under the supervisions of the NGO, but for groups those supported by MCCCo Ltd, payment is done under the supervision of members themselves.

Despite the new mechanisms, PCBs have continued to purchase coffee without following the regulations sets by the 2001 Tanzania Coffee Industry Act. For example, although the Act states that licensed coffee traders must establish buying centres and indicate purchasing prices, most of the PCBs do not abide to this regulation. During the research, it was found that PCBs in the villages have appointed agents who purchase coffee on their behalf. Since most of the buying agents are the villagers, they are purchasing coffee from one house to another and do not have indicative prices. The villagers at Kindimba, Mkumbi and Kitanda mentioned that the purchasing price is reached through negotiation and since the villages have limited marketing information, they end up selling their coffee at low prices to the agents, who instead, sell to the PCBs at higher profit. Having seen the new mechanisms of coffee marketing in Mbinga which involves cooperatives, farmers groups and PCBs, the next section presents and discuses the three types of actors, focusing on their characteristics and functions.

4.4.3. Actors in the coffee marketing chain in Mbinga: characteristics and functions

This section will present three types of actors of coffee marketing in Mbinga, which have emerged from the 2002/03 coffee seasons to present. The three types are the private coffee buyers, (PCBs), AMCOS and farmers groups (see figure 4.11). Moreover, their features, service offered to farmers and differences within the same type and with another type will be highlighted and discussed. Lastly, the section reviews the emerging conflicts arising out of their promotion of farmers groups or AMCOS.

4.4.3.1. Private Coffee Buyers (PCBs)

The first group consists of the PCBs, licensed to purchase either cherries or parchment coffee from farmers. There are two types of PCBs in Mbinga: international and indigenous companies. PCBs can be categorized further into those that purchase cherries and those that purchase parchment coffee from farmers. The following section discusses PCBs according to the type of coffee they purchase and services offered to farmers.

4.4.3.1.1. PCBs that purchase cherries

There are two sister companies that are licensed to purchase cherries from farmers and to operate central pulpers in Mbinga. The two PCBs share the same offices and a coffee curing plant. Since 1995/97, the two companies have leased the central pulpers from the village governments and have constructed 13 mini and central pulpers. Currently, the two companies operate 21 central and mini pulpers in various villages in Mbinga. Besides, and different from other PCBs, the two companies are supplying agricultural inputs to the farmers who sell coffee to them at relative lower prices; for example, in 2004.05 season, one bag of 50 kilograms of CAN fertiliser is sold at Tshs. 16,000 compared to Tshs. 20,000 in the shops operated by private stockists. Moreover, the two companies are issue payment receipts as well as inputs purchase vouchers to farmers. Finally, they do not use agents to purchase coffee for them. These reasons partly explain why farmers still prefer to sell coffee to them. However, before 2002/03 the two companies, like other PCBs in Mbinga, did not pay coffee farmers second and third payments that might probably have encouraged the formation of coffee farmers groups which sell coffee directly to the auction. The picture below demonstrates how the major actors are related and operate and their strategies which imply competition between them (Figure 4.11).

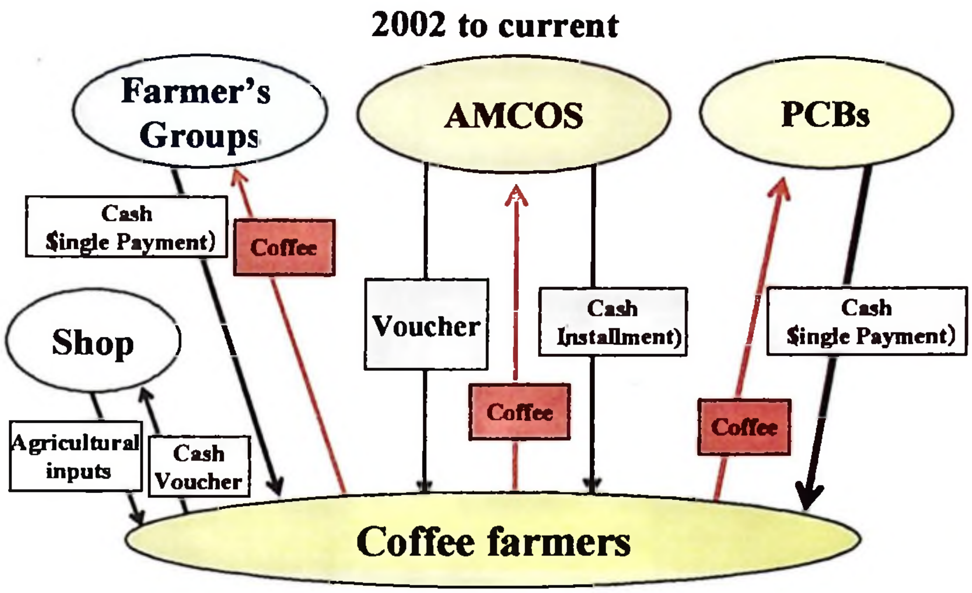


Figure 4.11 Services provided by current actors of coffee marketing in Mbinga district

There are advantages and disadvantages of selling coffee in the form of cherries. By selling coffee in the form of cherries to PCBs, farmers don't benefit from the profit obtained when their coffee fetches higher prices at the auction. It is rather the company that benefits. This explains why even in places where the two companies operate, farmers are selling their coffee both as cherry and as parchment. Therefore, farmers seem to understand that they receive minimum benefits by selling their coffee as cherries. The reasons why farmers sell their coffee to different buyers will be discussed later. However, one point is clear; the two companies purchase coffee and pay farmers within a week and in this way, they are assisting farmers who are faced with problems and immediately in need of money. Timely payment, within a week places the two companies at an advantageous position than AMCOS which purchase coffee on loan and can only pay when coffee has been delivered to the curing factory and a report sent to CRDB.

However, the dominance of two companies in purchasing cherries from the farmers is the results of failure of both village governments and farmers' groups to obtain capital and manage their pulping units. Management of pulpers requires payment for casual labourers, purchasing of diesel for running machines, purchasing of export bags, and transporting coffee to the curing factory. Although coffee growers feel exploited by the two companies, they have little choice, especially when they cannot afford to operate on their own. This partly explains the reasons why in some of these central pulpers, such as at Msasa, Longa and Pilikano, the two companies are operating the CPU without written agreements. Failure to negotiate with the companies and come out with a good agreement beneficial to both parties has affected even the management of the CPU, since the companies hardly maintain it (Msasa) and at times, collect cherry from one village and send it for processing to Mkumbi or Longa villages. Thus, weak bargaining power and lack of capital to operate their pulperies on the part of the farmers and their village governments are some of the reasons that have forced them to accept PCBs to operate their CPU without agreements. Surprisingly, a visit to Msasa mini pulpers at Unango village revealed that a PCB has been operating in the village for the last two seasons without the proper agreements with the farmers group. Having discussed the characteristic and roles played by PCBs which purchase coffee in form of cherries, the next section focuses on PCBs which purchase parchment coffee. Furthermore, the section will critically evaluate the performance of PCBs that purchases parchment coffee in Mbinga.

4.4.3.1.2. PCB who purchase parchment coffee

This group consists of PCBs which are licensed to purchase parchment coffee (dry coffee beans). It is made up of indigenous as well as international companies PCBs, For the 2002/05, there were 8 PCBs involved in purchasing parchment coffee in Mbinga. However, it should be noted that the coffee industry regulations require PCBs to apply for a licence each year, it may happen that one company which purchase coffee in a particular season might not do so because of, either having been refused a licence renewal or having decided to purchase coffee from other zones. The following section discusses the characteristics of the PCBs licensed to purchase parchment coffee in Mbinga.

First; purchasing parchment coffee in cash without issuing the inputs vouchers to coffee growers. Thus, their interest is to purchase coffee without considering the sustainability of coffee production. Likewise, the PCBs are not concerned about the quality of coffee they purchase, they purchase and pay irrespective of the grade of the coffee. This is partly contributed by their system of purchasing coffee by using the agents, most of who have limited knowledge about the quality of coffee (Ponte, 2002). In addition, even if the agents know the good quality coffee, their interest is quantity and not quality of coffee they buy as they are paid according to the quantity and not the quality of coffee they have purchased from farmers.

Second, purchasing parchment coffee through agents, mostly villagers. The use of agents without licence is however, contrary to the 2001 Tanzania Coffee Industry Act, Part IV, section 12 (3) which prohibit any person to engage in purchasing or engaging in any coffee related business without a licence from the TCB. Likewise, the 2003 Tanzania Coffee Industry regulations, Part V, requires PCBs to establish coffee-buying posts that indicates their purchasing prices in the villages they operate, and display standard sample for each grade. This is not happening in the study villages. At Kindimba, Mkumbi and Kitanda villages, PCBs have purchased coffee from house to house, using agents, who in most cases are members of the villages in which they do business. The TCB has failed to correct this weakness at the primary production level. The district authorities are well aware of these problems, but feel that it is the role of TCB to supervise and reinforce these regulations. Thus, these loopholes have resulted in thefts and cheating of farmers by agents.

Third, purchasing parchment coffee without issuing receipts; during the research, it was found out that farmers who have sold coffee to the PCBs could not show the receipts issued to them by respective PCBs. Even when asked, most of these farmers did not know which companies they sold to and in most cases, without obtaining inputs purchase vouchers. Therefore, for some of the PCBs who used agents, have purchased coffee in the villages like purchasing any other food crops such as beans and maize.

Fourth, purchasing coffee regardless of the grades. As stated earlier on, purchasing coffee according to its grades helps to reward farmers who worked harder to improve the quality of the coffee they produced. Likewise, it encourages others to work harder in future and improve the grades of their coffee so that fetches higher prices. Overtime, this would improve the quality and reputation of coffee from Mbinga at the auction. The Tanzania Coffee Industry Regulations of 2003 (Part IV) require that all parchment coffee should be purchased according to its grades. However, PCBs have purchased coffee without taking note of its grade and paid uniform prices to farmers. This has affected both morale of farmers to work hard and the quality of coffee produced. On the other hand, as will be noted in chapter six, farmers are also utilising this loophole as one of their surviving strategy by selling poor quality coffee to the PCBs and good quality coffee to their groups. Thus, this has created a dependence link between the PCBs and farmers; lazy farmers have benefited from the PCBs while the PCB paid uniform prices to all grades of coffee. However, the over all effect has been the deteriorating quality of coffee purchased from Mbinga.

Firth, and as demonstrated by farmers groups and KIMULI AMCOS, PCBs do not show auction sale price sheets to coffee farmers who end up not knowing the actual prices fetched by their coffee at the auction. Consequently, PCBs are only interested in purchasing coffee from farmers at the cheapest prices possible without assisting them to improve coffee production. Ponte (2002) noted the same trend of PCBs who would like to purchase coffee as much as possible but supplying minimum inputs to farmers.

However, despite all those weaknesses, the trend of coffee marketing in Mbinga for the last three seasons, (2002/03-2004/05) indicates the dominance of the AMCOS only in the 2002/03 seasons. Ever since, the market share of AMCOS has been decreasing while the share of the PCBs is increasing. Data from the MCCCo Ltd indicates that by the last week of October 2004, PCBs had delivered more than 50 percent of all coffee brought for curing in that season. Generally, this shows that the share of AMCOS has been decreasing. It is possible that the PCBs have been able to collect more coffee because of their flexibility of increasing prices at any time when the needs arise to compete at the market and attract farmers. However, this is contrary to the AMCOS, which lack flexibility of increasing prices and taking advantage of the market opportunities. In the case of AMCOS, increase of purchasing prices must be authorised by the general meeting and by that time, PCBs will have already purchased most of the coffee. Other possible reasons for the decreasing shares of AMCOS will be explained in the following section.

4.4.3.2. Agricultural marketing cooperative societies (AMCOS)

This is the second type of actors in the coffee marketing channels in Mbinga District. As we have seen in the previous sections, the 2001 Coffee Industry Act empowers AMCOS to sell coffee, which they have either grown or collected from their members directly to the auction. Previously, AMCOS were the agents of the cooperative unions and as such, had to sell their coffee through the cooperative unions. In the 2004/05 coffee seasons, AMCOS in Mbinga district have been divided into two categories. The first category consists of AMCOS that have been organised into seven zones of Luwaita, Mahenge, Malindindo, Maguu, Kipapa, Kiukwa and Pilikano. The second category is made up independent AMCOS, including those of Kimuli, Kalime, Luli, Muungano, Matiri, Kitumbano, and Kindimba Juu and chini. For the purpose of this study, major characteristics and features of these AMCOS will be discussed. Furthermore, KIMULI AMCOS, made up of eight villages will also be discussed separately because it presents a different picture from all other 54 AMCOS in Mbinga District. The current zoning of the AMCOS in Mbinga is shown on Figure 4.7. The following sections present features and characterises of AMCOS in Mbinga. However, except for the case of KIMULI that will be dealt later on, most of the AMCOS show similar characteristics as mentioned below.

4.4.3.2.1. Functions and characteristics of the Zones

This section will discuss the functions of the AMCOS zones in Mbinga. In the process, it will discuss the reasons for the emerging trend whereby PCBs have been noticed to dominate coffee marketing. The functions of the AMCOS zones, among others is collecting money (after auctioning of coffee) from the National Micro Finance Bank (NMB) in Mbinga and to distribute it among the AMCOS under their respective zones accordingly. However, this is not so because there is no transparency. For example, some of the leaders of AMCOS zones have been accused of not informing other leaders in their zones of the exact amount of money fetched at the auction after selling coffee. Thus, there is a general feeling that some of the leaders are not faithful. This has resulted into misunderstanding between and amongst the zones and AMCOS leaders and is breading mistrust and accusation of embezzlement on the part of the leaders. As a result there are zones that have been formed after a misunderstanding within AMCOS zones. Disgruntled farmers have decided to form their own AMCOS zones as the case with the formation of KIUKWA zone from KIMULI AMCOS zone and Maguu zone from Malindindo zone. Thus, after operating for three seasons, most AMCOS are not satisfied and want to be independent.

AMCOS Zones have five main features as follows; first, as we have seen in the section on the warehouse receipt system, operations and activities, AMCOS depend on loans from the CRDB. Thus, despite operating for the last three seasons, the AMCOS have failed to build their own capital base. As a result, PCBs have acquired an upper hand and have managed to purchase most of coffee in the season. This is because farmers have many problems and they depend on selling coffee to solve their problems. Although PCBs have had a bad image because they neither offer inputs vouchers nor pay in instalments, but farmers are however, forced to sell part of their coffee to them in order to solve their immediate problems. Thus, this has put AMCOS in a disadvantageous position in the competitive market. Secondly, AMCOS purchase only parchment coffee from farmers. Although most of the central pulpers have been built by the coffee farmers and their respective village governments, most of them, as discussed earlier, have failed to operate them and ended up leasing them to PCBs. The village governments and their AMCOS would benefit more if they could manage and operate the pulping units. This is because, coffee processed at the central pulpers can be easily controlled to ensure better quality by processing it at the right time, following proper procedures and thus, increasing the possibility of producing better grades which fetch higher prices

Third, depending on loans from banks has forced AMCOS to purchase coffee from farmers on credit, and later on repay the debt after the coffee is delivered at the curing plant in Mbinga. However, under the current system of warehouse receipt system (Figure 4.12), it takes a shorter time for AMCOS to pay farmers. This is because payment is done before the auctioning of coffee when the selling prices have yet to be determined. Therefore, if coffee will be auctioned when prices are low, there is a possibility that farmers will not receive second and third payments. However, purchasing coffee on credit through warehouse receipt system (Figure 4.12) has placed AMCOS in a disadvantageous position compared to PCBs who pay farmers on cash. As will be discussed later, when farmers are faced with difficulties and problems, they will not choose where to sell coffee because their immediate aims is to get money and solve their immediate problems. Thus, purchasing on cash enables PCBs to have an upper hand in this regard. The presence of capital to purchase coffee on cash and market flexibility to increase or decrease prices according to the market situation has allowed PCB to dominate coffee marketing in Mbinga.

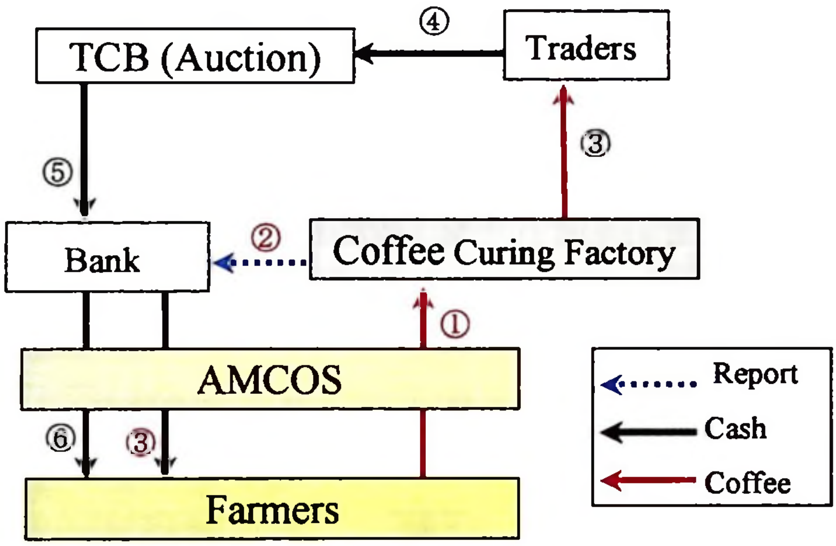


Figure 4.12 Mechanisms of warehouse coffee receipt system

However, KIMULI AMCOS have been more flexible to purchase coffee on cash at all time and offer stiff competition to PCBs. Thus, accumulation of capital even before the beginning of the coffee purchasing season could be one of the strategies for AMCOS to compete with PCBs in coffee marketing. Availability of capital on part of the AMCOS could be facilitated by two other advantages of AMCOS over PCBs, that of supplying inputs purchase vouchers to farmers and paying coffee farmers in instalments.

Fourth, despite purchasing coffee on credits as compared to PCBs who offer cash, the advantages of AMCOS lie in their ability to assist farmers to obtain agricultural inputs. This is done through issuing to farmers inputs vouchers of Tshs. 50 for each kilogram of coffee purchased. In addition AMCOS assist farmers by first, identifying their requirements; second, collecting their inputs purchase vouchers and sending them to the registered inputs stockists in Mbinga town. Third, the inputs stockists provide agricultural inputs that are distributed to the coffee farmers, according to amount of their vouchers. Pilikano and KIMULI AMCOS are examples of licensed stockists of agricultural inputs. Both of them have operated in only one year and as such it is difficult to measure their impact to farmers. It is likely that as registered inputs agents, AMCOS might help farmers to obtain inputs (for both coffee and other crops) within their reach and at reasonable prices.

Finally, are the efforts done by AMCOS to improve both the quality of coffee and prices. Prices of the Mild Arabia coffee is influenced by its quality. The Tanzanian Coffee Industry Regulation, 2003 Part IV instructs that coffee should be sold according to grades. In 2004/05, Malindindo and KIMULI AMCOS have managed to purchase some of the parchment coffee according to officially set grades thereby, and rewarded those farmers who have worked hard to produce good quality coffee. This is aimed at encouraging farmers to produce high quality coffee and increase their competitiveness both at the Tanzania auction and outside. However, for other AMCOS, like Ngaka and Pilikano, coffee delivered from farmers is not graded, but, it is rather mixed together and marketed simply as parchment I. The current trend of marketing of Mild Arabica coffee gives impetus of producing high quality coffee, which fetches high prices. Therefore, mixing all grade of coffee does not encourage farmers to work hard and produce high quality coffee, but rather diminished quality and affects the payments to those farmers who have worked harder to produce high quality coffee. This partly explains the emergence of farmers who have formed groups so that they can sell high quality coffee directly at the auction and benefit from price differentials. Likewise, the world market is saturated with coffee (ICO, 2002; Baffes, 2003), most of which are of poor quality. Thus, if farmers in Mbinga and other Mild Arabica zones would like to compete and fetch high prices, it is a must that they work hard to improve the quality of their coffee so that it attracts customers. It is expected that efforts to improve quality will not end up at Malindindo, Maguu and KIMULI AMCOS alone, but will spread to other zones as one of the current farmers' marketing strategy.

4.4.3.2.2. Problems of zones and AMCOS

Although the AMCOS which have been empowered by the district committee to sell their coffee directly to the auction have operated for only three coffee seasons, already some problems which have resulted into conflicts and misunderstanding among them have emerged. The problems noticed include lack of transparency among the leaders, and reduced numbers of AMCOS members in the villages. These two problems and suggested solutions are the subject matter of the following sections.

First, most of the AMCOS leaders are not transparent in their operations especially regards coffee income from the auction. Despite the fact that there are auction sheets that are issued to all who have sold coffee in a particular auction, AMCOS leaders do not display that information to coffee farmers. Farmers in Kindimba and Mkumbi have complained about lack of transparency on part of their leaders. For example, in the 2003/04 coffee seasons, leaders of Pilikano AMCOS were suspended because of theft and lack of transparency. Under this situation, some farmers are wondering how a cooperative union that is expected to carter for all 54 AMCOS in Mbinga district will assist them when zones, which are made up of less than 10 AMCOS have failed to do so. Farmers have not forgotten the experiences of MBICU and MBIFACU that collapsed after only one year. It remains to be seen if AMCOS, united into zones will be able to serve farmers without problems, bearing in mind that they face strong competition from PCBs and farmers groups.

As pointed earlier, there is the decreasing percentage share of AMCOS as opposed to the PCB in the last three coffee seasons in Mbinga. The declining trend could be attributed to the fragmentation of the zones, which have occurred within three coffee seasons as well as activities of some of the AMCOS that collected coffee from farmers and sold it to the PCBs instead of TCB auction in Moshi. During the research, it was not clear as to why most of the coffee delivered at MCCCo Ltd was bought by the PCBs and not by AMCOS as shown by the results of the household survey. As will be discussed later, agents have purchased most of coffee for PCBs in the villages. Since the agents neither issues receipts nor inputs purchase vouchers, it was not easy to estimate the exact amount of coffee bought by the PCBs. Moreover, there were speculations that some of the AMCOS collected coffee from farmers and sold it to PCBs. There are few examples of AMCOS that have sold coffee to PCBs. In 2002/03, among the coffee sent to MCCCo Ltd for curing by Langiro AMCOS, 50 bags of parchment coffee did not meet the standards and were consequently rejected. Instead of transporting this coffee back to Langiro village for drying, the leaders sold it to PCBs. Likewise, in 2003/04, Linda AMCOS also sold part of their coffee to PCBs while in the 2004/05 season, Sepukila AMCOS did the same. It is difficult to establish the exact amount of coffee sold by AMCOS to PCBs because this is an illegal business. But what motivates AMCOS to sell coffee to PCBs? According to Mr. Mhando, the coordinator of the District Committee that coordinates the activities of the AMCOS, when coffee is rejected at the curing factory, some of the AMCOS do not want to take the burden of drying their coffee again, since they are not sure if it will still be auctioned when the prices are still high. In addition, some of the leaders are not sure of the auction prices, especially at the end of the season and if PCBs offer reasonable prices that cover their operation costs and payment to coffee farmers, they are tempted to sell it to PCBs. Furthermore, PCBs will do anything to collect as much coffee as they can, even by bribing some of the corrupt leaders of the AMCOS. Such was the case of the Pilikano AMCOS, where farmers have claimed that in the 2003/04 seasons, part of their coffee was sold to PCBs. All in all, selling coffee to PCBs not only weakens the struggle of farmers to have their own organisations for production and marketing, but also jeopardises the chances for farmers to have access to agricultural inputs, taking into consideration that PCBs do not offer inputs purchase vouchers to farmers. Thus, faced by with such a situation, farmers may opt for other ways of obtaining inputs such as *magoma*, which as we saw earlier, is very costly to repay.

The second problem of the AMCOS involves membership. The 1991 and 2003 Cooperative Societies Acts, among other things, changed the conditions of membership to the primary societies, from automatic to voluntary. Although the Acts have given villagers freedom to chose to become members or not, they have affected participation of the farmers in matters relating to major decisions taken by the AMCOS. Furthermore, section 36, of the 2003 Cooperative Societies Act states that every member shall have one vote only in the affairs of the society and is entitled to attend the general meeting of the society and record his vote on any issue pertaining to the running of his/her society. The implications of the above state of affairs are very clear. For example, KIMULI AMCOS that operates in 9 villages has membership of only 336 (approximately 37 members in each village). Likewise in Longa village, AMCOS has 25 members only, while in Kindimba village, out of 498 households only 98 are members of the Ngaka AMCOS. The AMCOS regulations require that only members can take part in making major decision, including voting. Thus, with only few households as members, most villagers are left out and cannot participate in making decisions that would have affected their lives as coffee farmers in the area. Mkumbi village and its AMCOS, Pilikano provides the other interesting case on membership of coffee farmers in AMCOS. It was estimated that only 20 villagers are members of the AMCOS and thus, have the right to vote and hold leadership positions. The leadership of AMCOS consists of twelve members, thus leaving out only eight members. Furthermore, each year, three members are supposed to be rotated out of leadership positions to be replaced by another three members. Under this situation, each member has a chance of being a leader in a certain position within three years. However, this situation is becoming critical especially when members want to vote out the leadership. This is because leadership in AMCOS is made up of twelve members, and therefore the remaining members (eight) will not be enough to replace the leadership. Another problem is that, if members are so few in number (only 20) and each has chance of being selected again in three year, even corrupt leaders who were chased away might have a chance of been selected again.

There is a need of sensitising farmers on the importance of membership in their AMCOS, because most of the villagers are coffee producers and some of them market their coffee through the AMCOS. Although villagers are discouraged by the past experience of the unions (MBICU and MBIFACU), staying away might not help them. In all probability, joining the AMCOS will make a difference, since they will be able to vote and influence decisions that affect their lives as coffee farmers. The District Cooperative Development Office has an important role to play in educating and sensitising villagers to join primary societies.

4.4.3.2.3. Sustainability of the AMCOS

As discussed earlier, it was the efforts of the district authorities which revived and empowered AMCOS to start purchasing coffee from farmers and market it at the auction, thereby, breaking the monopoly of the PCB which dominated the market since collapse of MBICU in 1995/96 season. The 2002/03 coffee seasons was the breaking point for most of the AMCOS in Mbinga (except Malindindo) which auctioned their coffee directly, bypassing the cooperative union. However, after operating for three seasons, AMCOS still depend too much on the District committee which, was initially designed to operate for only one year and that during the following season, 2004/05, each zone was supposed to operate independently. It was further thought that after one year, the zones and AMCOS would have accumulated enough experience to allow them to operate independently and compete with the PCB. However, recent data from MCCCo Ltd show increasing dominance of the PCB over AMCOS. This raises the questions as to whether the zones that are frequently fragmented can operate without the support of the District committee? Probably, failure to build capital base among the AMCOS has made them depend too much on loans from CRDB and assistance from the committee that they cannot operate independently.

Another big challenge for the existence and sustainability of zones and AMCOS is the mushrooming of farmers groups that would like to market their coffee at the auction. Having realised the importance of directly auctioning and prices of high quality coffee, now the trend is for farmers groups to by pass AMCOS and market their coffee directly. Thus, to reduce the influence of the PCBs and encourage farmers to sell coffee to them, AMCOS should consider collecting and marketing coffee according to grades so that those who have worked hard should be rewarded accordingly to their efforts. Discussion on the sustainability of AMCOS in Mbinga brings us to one example of AMCOS whose performance and services to coffee farmers is relative better than others. KIMULI AMCOS is the good example of an AMCOS that has managed to compete with PCBs in marketing of coffee in Mbinga. It is from this background that the following section will discuss the activities of KIMULI AMCOS in details, while comparing it with other AMCOS. It is expected that other AMCOS will learn from the success of the KIMULI AMCOS in order to improve their activities and services to their members.

4.4.3.2.4. Independent AMCOS

There are seven AMCOS in Mbinga that are independent and do not fall in the zoning system. Some of these AMCOS have removed themselves from the 7 zones for various reasons. They collect coffee from farmers and auction it themselves. This group, however, depends on the loans from the CRDB for financing their crop procurement activities. KIMULI AMCOS falls in this category and it has been selected as a case study because of what other AMCOS should learn from it in order to be able to compete with PCBs.

The operation and performance of KIMULI differs from other AMCOS in Mbinga. This is because KIMULI operates both as AMCOS (offering services to its members) and a private coffee buyer, accumulating capital and purchasing coffee like PCBs. KIMULI was initiated by Kitanda, Masimeli, Utili and Lipumba villages, but over the years, other villages of Mtama, Lipumba, Litorongi, and Mahande have joined. However, it should be noted that KIMULI is made up of the villages that are located in the lowland areas of Mbinga. Historically, coffee was introduced in the highlands areas, which are more favourable for production of Mild Arabica. Likewise, more than 80 percent of coffee from Mbinga is produced in the highland areas and the remaining 20 percent in lowlands (DALDO, 2004). Thus, production wise, it is possible for one AMCOS to be formed by more than one village because of the production level is still small compared to the higher level in highland areas. Organisationally, the highest body is a committee that is made up of fifteen members. However, the number of committee members in KIMULI is greater than other AMCOS to allow representations from all eight villages. Usually, the committee is made of twelve members. Besides, there are four committees; planning and finance, crops, transportation and livestock keeping. Of the four committees, the planning and finance committee is the one which concerns itself with management of finance, budgetary and processing loans from the CRDB. Covering eight different villages, distributing inputs and collecting coffee is not an easy task. To solve communication problems among the villages, KIMULI AMCOS owns a second hand Land Rover which, among other activities, is used to collect parchment coffee from their mini warehouses located in the eight villages and stock it up at the AMCOS headquarters and sometimes transport directly to Mbinga coffee curing factory. Thus, by managing to solve their communication problems from one village to another, KIMULI AMCOS is distinguishable from other AMCOS in Mbinga.

Over the years, KIMULI AMCOS has initiated various economic activities with the aim of boosting their income. For example, in 1998, they involved themselves in purchasing tobacco from farmers. Unfortunately, it was not as profitable as expected and the project was abandoned. Probably, many Matengo could not adopt tobacco cultivation because they are already overburdened by coffee cultivation. Tobacco would have increased labour requirements. Likewise, they tried to engage in a maize business. Historically, farmers' cooperative unions were initiated in areas that grow cash crops and not food crops. This explains why cooperatives unions initiated in food crops areas did not succeed so much. This might explain why KIMULI AMCOS could not benefit from trading in maize. However, it should be noted that throughout its life, KIMULI

AMCOS has initiated various projects in order to increase their income and obtain a working capital. As we will see later, this aggressiveness of KIMULI AMCOS assisted it in competing with PCBs in the areas covered by KIMULI.

Before the 2002/03 coffee seasons, KIMULI AMCOS was an agent of PCBs. It was collecting coffee from farmers on behalf of PCBs and was paid commission for each kilogram of coffee collected. KIMULI AMCOS was forced to act as an agent since, by that time, it was difficult to obtain loans from the banks which would have enabled it to purchase coffee from farmers and sell it at the auction. Thus, availability of loans from CRDB from 2002/03 coffee seasons has boosted the morale and activities of the KIMULI AMCOS including direct auctioning of their coffee. According to the secretary Mr Ernest Komba, KIMULI AMCOS is not a business entity with a motive of making profits, but rather an organisation that offers services to farmers, through facilitation of marketing of coffee and the provision of agricultural inputs. To finance its activities, KIMULI depends on a levy of 40 shillings collected from each kilogram of coffee sold through them. The following section discusses the services offered by KIMULI to coffee farmers in the areas of operation.

First, the payment of the initial instalment to coffee farmers is agreed between AMCOS, which own coffee on behalf of the farmers, and the CRDB which offers loans to facilitate coffee purchases and marketing. It takes around two weeks for farmers to be paid their initial instalment by AMCOS. Thus, PCBs have utilised the limited cash flow of AMCOS to purchase coffee from farmers with problems who cannot wait for the money from AMCOS. However, and unlike other AMCOS, KIMULI pays initial payment to farmers within a week and thus, reduces the temptation on the part of farmers to sell their coffee to PCB. During the household's interviews at Kitanda village, farmer interviewed admitted to have received their initial payment within a week. The KIMULI AMCOS managed to pay within a week by using its reserve capital accumulated at end of 2003/04 coffee seasons. Accumulating capital is one of the strong points of KIMULI. For example, in 2003/04, it accumulated a total of Tshs. 10,000,000 from its projects of coffee nursery, SACCOS, and dairy cattle. This capital reserve was used to pay the farmers their initial payment, while waiting for the loans from the CRDB bank. It follows that, if other AMCOS would follow the example of KIMULI, the dominance of the PCBs would be reduced to a great extent. Payment of second instalment will depends on the prices of coffee at the auction minus the expenses incurred by the KIMULI before coffee reaches the auction. Likewise, the third payment is not automatic, but will depend on what time coffee was auctioned. For example, if KIMULI AMCOS has collected 346 tons and have auctioned 209 tons that covered a loan from CRDB, then the reminder of the money will be used to pay the second instalment and the third instalment will be paid after auctioning the remaining tons. However, KIMULI AMCOS differs from other AMCOS on the time for paying the instalments. Historically, the three-tier payments were divided in such a way that farmers had money throughout the year (Temu, 1999). Therefore, farmers were paid at the time when they needed money most; for example, second instalment payment was paid in January/February when they need agricultural inputs for coffee and school fees for their children, and third instalment was rewarded in April, the time for applying chemical fertilisers and spraying the coffee fields. In the case of KIMULI AMCOS, payment is done when money is available. Unlike other AMCOS, KIMULI posts at the villages the auction sale sheets that indicate when their coffee was sold and at what price. Thus, failure to pay farmers on time will not be explainable. The transparency of KIMULI AMCOS, forces it to pay farmers when money is available. However, farmers would benefit more if KIMULI AMCOS could pay them in three instalments at different times of the year, especially when faced with problems. Maghimbi (2000) observed that by paying farmers in three instalments, cooperatives unions were indirectly banking coffee sales on behalf of the farmers.

Second, KIMULI AMCOS is a registered stockist by the National Coffee Inputs Voucher Scheme (NCIVS) that allows it to collect vouchers from farmers and exchange them with inputs, according to their requirements. Under this arrangement, KIMULI AMCOS assists farmers by collecting their inputs vouchers and exchanging them with agricultural inputs. Currently, the exchange can be done at Mbinga town where there are four registered voucher schemes authorised to exchange inputs vouchers with inputs. Third, KIMULI AMCOS provides inputs loans to farmers who have good records of selling coffee to it and who are trustworthy, thus enabling them to access inputs when they need them. In most cases, inputs loans given to farmers are recovered during payment of the second instalment. Payment of loans by deduction at second payment assures that KIMULI AMCOS recovers its money without problems. However, if the second payment is not enough to cover the loans, farmers are obliged to find other alternative sources of income to cover the loans, such as selling livestock or food crops. Chapter six discuss various ways used by coffee farmers to obtain agricultural inputs.

KIMULI has taken steps in the right direction in the provision of services to farmers. By providing inputs at affordable prices, it has reduced the burden of the farmers to travel to Mbinga to purchase the same. Likewise, by assisting farmers in exchanging vouchers with inputs, it reduces the temptations of farmers to sell the inputs vouchers at cheaper prices and use money for unintended activities. Furthermore, KIMULI AMCOS motivates coffee farmers by distributing inputs in their respective village and thus, encourages the perception that each village is somehow or equally favoured.

Fourth, KIMULI has a capital reserve and thus competes on equal footing with other coffee private buyers to purchase coffee on cash in their villages, which are covered by KIMULI AMCOS (without second and third payment). However, an informal conversation with Assistant Secretary of KIMULI AMCOS and the Secretary of KIMULI SACCOS revealed that in order to compete with PCBs, KIMULI AMCOS had at times changed its mode of operations. One way is by purchasing coffee on cash both in its areas of operation and even outside without offering vouchers and second and third payment. Through this way, KIMULI operates like any other PCBs. Consequently, since most of the farmers are interested in obtaining inputs for the next season, they end up selling their coffee to KIMULI AMCOS, instead of PCBs which might purchase at a bit higher price without inputs. Availability of capital enables KIMULI AMCOS to purchase coffee on cash and thus, manages to compete on equal footing with PCBs.

Fifth, the 1991 and subsequently 2003 Cooperative Societies Acts stated that AMCOS would be formed according to their economic viability. Historically, in Mbinga, AMCOS were not initiated on a village basis, but covered large areas. Later on, as villages increased level of coffee production, the formation of AMCOS was based on the villages. Despite this, not all villages in Mbinga District cultivate cash crops (namely coffee) and such villages have not qualified to form their independent AMCOS. This explains why, despite the presence of 183 villages in Mbinga, there are only 54 registered AMCOS. As pointed out earlier on KIMULI AMCOS covers eight villages, a greater number than any other AMCOS in Mbinga. Likewise, services offered by KIMULI differentiate it from the rest of the AMCOS which survive merely from the loans from the banks. Also other AMCOS, from time to time, have experienced problems of leadership. Thus, KIMULI AMCOS is a good example of how farmers' AMCOS should be. Area wise, it is not clear if KIMULI AMCOS operates like the cooperative union. Probably, KIMULI AMCOS does not differ very much from ISAYURA Cooperative Union in Mbozi which is made up by 9 primary societies. Thus, it is not surprising note that KIMULI has been registered as an AMCOS but operates like a cooperative union. KIMULI AMCOS provides good examples for other AMCOS in Mbinga to emulate in order to improve services to coffee farmers as well as competition with PCBs.

After discussing the roles and functions of PCBs and AMCOS in Mbinga, the next section presents the third and last type, which is farmers' groups organised in order to produce high quality coffee and sell directly at the auction. The discussion on farmers groups is dived into three sections depending on how they market their coffee, those that are under Techno Serve, DALDO and TaCRI.

4.4.3.3. Farmers' groups

The third type of institutions engaged in the coffee marketing in Mbinga district is farmers groups. Farmers groups are mostly organisations of the farmers who have decided to utilise the 2001 Coffee Industry Act, which allows them to send coffee directly to the TCB auction. As a result, farmers groups have managed to get better prices of up to nearly 50 percent. The emergence of such groups in Tanzania has been reported in Arusha, Kilimanjaro, Mbinga and Mbeya (Cooksey, 2003). The objective of these farmers groups is to improve the quality of coffee that will enable them to have a reliable market for their coffee, as well as improving their level of income and thus reduce poverty among the groups' members. As pointed out earlier on, the emergence of the farmer's groups in Mbinga is a function of the failure of AMCOS and PCBs to provide farmer with required services so as to increase the price of their coffee. Although the price of coffee paid to farmers is influenced by the auction prices in Moshi and the New York coffee market (Temu, 1999; Baffes, 2003), still farmers felt that PCBs and AMCOS paid them lower prices than what they deserved. In addition, although farmers would like to know the prices of their coffee at the auction, both parties were not ready to share with farmers, what they had fetched at the auction (with exception of KIMULI AMCOS). With the 2001 Coffee Industry Act, farmers decided to auction part of their coffee directly and benefit from the good prices offered for high quality coffee. On the other hand, for many years, both AMCOS and PCB paid farmers uniform prices regardless of the grades of coffee they sold. Thus, this demoralised the farmers who stopped to produce good quality coffee. Furthermore, the conflicts which have emerged among the AMCOS leaderships (Pilikano and Malindindo AMCOS in 2003/04), have resulted in the loss of confidence among the farmers who have decided to initiate their own groups and auction their coffee directly. The incentive for farmers to sell their coffee through the groups is that each member will be paid according to the quality of his/her coffee, which means that, those with special grade coffee will be paid more than those with parchment I coffee. In addition, the presence of transparency and the small number of members facilitates access to information on what is happening at the market through accounts sheets. Thus, each one will be paid according to his contribution, which is different from AMCOS where farmers do not have access to this crucial information.

In Mbinga District, there are three types of farmers groups according to their organisation and source of technical support: those which are under the district agricultural office (DALDO), those under Techno Serve, through its affiliated organisation, the Association of Kilimanjaro Speciality Coffee Growers (AKSCG) and lastly, those organised and trained by a sub-station of Lyamungu Coffee Research Centre, TaCRI. However, it is very difficult to distinguish between these groups because some of these groups receive support from more than one source and as such there is no clear-cut way of distinguishing them. Perhaps, one way of distinguishing them is on the ways used to market their coffee.

4.4.3.3.1. Farmers Groups supported by NGO

NGO (A) has been organising farmers groups to improve their coffee quality through improvement of management and processing (Techno Serve, 2002). Since 2003, NGO (A) has been providing training to coffee growers in selected areas that are located above 1500 metres above sea level. This is because good quality coffee (especially Mild Arabica) is produced at higher altitude from 1200 metres above sea level and higher. Since the objective of NGO (A) is the strengthening of businesses groups, these groups must have been registered as business groups at the ministry of trade and industries. The activities are financed by USAIDS, the Swiss government, and the private companies of Dorman and Volcafe, which are engaging in coffee trade. Before the 2001 Coffee Industry Act, Dorman was purchasing coffee both directly from farmers and at the auction in Moshi, while Volcafe is a roaster company, which purchased coffee from Dorman. The two companies are supporting the activities the NGO (A) probably as one way of protecting their market and making sure that they can access coffee from growers and monitor its transport abroad.

Through technical support, NGO (A) is assisting farmers in improving the quality of their coffee through the provision of four central pulpers' machines. The four machines have been installed at Kipololo, Lingomba, Mkuhi and Lutondo villages and are managed by groups of farmers. From the NGO (A) viewpoint, these groups obtained the machines after feasibility studies that indicated that production in those areas is about 15 tons and thus is viable for farmers to pay for their machine loan. These machines, categorised as ecological pulpers, are meant to conserve water especially in places with shortage of water and capable of removing mucilage and as such, there is no need for fermenting of coffee.

4.4.3.3.2. Farmers' groups supported by DALDO and TACRI

Another category of farmers' groups which sell coffee directly to the auction in Mbinga are those organised and supported by DALDO and TACRI. As stated earlier, there is no clear way of differentiating these groups, since the groups in this category market their coffee on their own, without assistance from DALDO or TACRI and receive the auction sheets, divide the money among themselves. However, these groups have been empowered by the two organisations to start farm management practices as the first important stage in improving the quality of their coffee so that it fetches higher prices. This section introduces major features, roles and activities of these groups. However, detailed accounts of their operation will be presented in chapter five. The above-mentioned farmers' groups are assisted by TACRI/DALDO in training their members on management and processing skills of good quality coffee. In short, these groups are aimed at improving the quality of coffee, so that they can sell directly to the auction and obtain premium prices. Furthermore, by directly auctioning coffee, the groups will maximise income from each kilogram of coffee, rather than selling through the AMCOS that deduct levy from each kilogram sell through them. Unlike the groups supported by NGO (A), these are organisations of coffee farmers without capital or any financial assistance. These are organisation of the villagers who have received training from farmers' field school, as provided by DALDO (to be dealt in details on chapter five). Groups of this nature depend on assistance from the MCCCo Ltd that assist them in transporting coffee from their villages to the curing factory and thereafter to the auction. Likewise, the groups receive the assistance of bags for collection and export, and are exempted from paying curing levy until their coffee is auctioned. After the auction, TCB pays money into the MCCCo Ltd accounts, which in turn deducts its expenses and pay the rest of the money to the particular farmers groups (see figure 4.8).

Through training in farm management and coffee processing skills they get from the DALDO and TACRI, these groups now have knowledge on market trends and thus, strive to auction their coffee between the months of September and November when prices are still high. The director of the TACRI substation in Mbinga, Mr. Swai supported this by reporting that by December 2003, members of UJIJITAMA group had auctioned all their coffee and benefited from receiving Tshs. 850/= per one kilogram of parchment coffee which was the highest in Mbinga in the 2003/04 season. As a consequence, initiation of farmers groups in Mbinga has benefited farmers who have improved their management practices and produced high quality coffee to take advantage of directly auctioning coffee when prices are high.

Payment of coffee among the groups members is done according to quality and quantity contributed by each member. This is because the group members' work together in turn to make sure that each member follows the directions as regards improving quality of their coffee. Close follow-ups are aimed at making sure that members produce the same quality coffee that will fetch higher price. In the end, payment is done according to the contribution in terms of quality and quantity of parchment coffee brought by each member. For example, a members who will deliver 200 kilogram of special grade coffee will be paid more than a member who will deliver 200 kilograms of parchment I coffee. Payment according to quality motivates members to work harder in order to obtain higher-grade coffee that fetches higher prices at the auction. After auctioning their coffee, the groups contribute money for the purchase of agricultural inputs for the following season, each member according to his/her requirements. It is the responsibility of each group members to pay for costs of transportation of the inputs from Mbinga to their respective villages.

The 2001 Coffee Industry Act provides a new horizon for farmers which, if well utilised, will improve the quality of their coffee and which will in turn fetch higher prices. The money so accrued will improve their livelihoods. It is important to note that good quality coffee that fetches good prices is a result of a combination of high level farm management practices, processing and storage skills. Both DALDO and TaCRI play a crucial role in the training of farmers groups so that they produce high quality coffee. Furthermore, MCCCo Ltd facilitates these groups to sell coffee directly to the auction by paying the initial costs of transportation, bagging, curing, and transportation of coffee to the auctions, which costs are then deducted from their coffee sales. Thus, various organisations in Mbinga are collaborating to improve the livelihoods of coffee farmers through facilitation of direct auctioning of their coffee. Chapter five will discuses the roles and functions of supporting organisations in details.

4.4.3.4. Mbinga Coffee Curing Company Limited (MCCCo Ltd)

MCCCo Ltd has been operating the Ngaka Central Pulpers Unit (CPU) at Kindimba village by paying wage for labourers, diesel for running machines and maintenance costs. On the other hand, MCCCo Ltd purchases coffee cherries from farmers in Kindimba village. Likewise, MCCCo Ltd assists coffee farmers by supplying inputs through voucher system. Ironically, there is no written agreement between the MCCCo Ltd and the village government on the modality on how the CPU will operate. The general notion between the two parties is that MCCCo Ltd is assisting farmers in Kindimba to process their coffee to high quality standard and helping them in marketing it at the TCB auction. After the auction, the TCB deposits the money to the MCCCo Ltd account, which then deducts its operational costs and pay farmers the remaining sum.

For the 2003/04 season, after auction coffee and deduction of its costs, it paid growers in Kindimba village at higher prices, of Tshs 130.00 per kilogram, (which is equivalent to Tshs. 650.00 for one kilogram of parchment coffee) compared to PCBs which offer Tshs. 100 per kilogram. Higher prices and issuing of inputs vouchers has encouraged growers from neighbouring villages of Mahenge, Mundeki and Kilanga Juu to sell their coffee cherries at the Ngaka CPU. MCCCo Ltd offers second and third payments, as opposed to PCBs. For example, in 2003/04, the first payment was Tshs. 70.00, second were Tshs. 20.00 and the last was Tshs. 40.00. Likewise, MCCCo Ltd paid second and third payment at times that were very crucial to farmers. For example the second payment was offered in January and February when farmers need fertiliser and food and the third payment was done in April, when farmers need fertiliser and medicines. Thus, although the money offered is small, it is very important for farmers, since it assured them, to some extent, of money during the lean months. Temu (1999) noted that three instalment payment systems assure farmers of having money throughout the year and at times of need.

As stated earlier, most of the village governments and farmers groups in Mbinga which own central pulpers have failed to operate them, which has forced them to lease them to PCBs. Thus, under this informal agreement, MCCCo offers assistance on transporting coffee from Kindimba village to the factory in Mbinga town and from the factory to Makambako warehouse, purchasing export bags, and curing costs. These are the costs in which Kindimba village would have had to incur if the costs were not deducted after auction sales. However, although farmers in Kindimba village are relatively pleased by the prices and services offered by MCCCo in 2003/04, the company is not very transparent to farmers. For example, after coffee auction, TCB issues coffee auction sales, which indicate the prices for each grade of coffee sold, amount of coffee sold, total payment and government, TCB and research taxes deducted. It is from these account sales receipts that farmers are able to verify the amount of money obtained from each auction. Unfortunately, despite running the CPU with the assumption of assisting coffee farmers to sell their coffee, MCCCo Ltd. does not share this crucial information with farmers. Likewise, neither the management of the Ngaka AMCOS nor the village government know the exact amount of money spent by MCCCo Ltd as operation cost on their coffee before auction. Consequently, failure to know the exact amount spent as operation costs and amount obtained from auction, leads farmers in Kindimba to suspect foul play. Despite those problems however, MCCCo Ltd has been very active in assisting in production, and improving the quality of coffee in Mbinga. An example of the efforts of the MCCCo Ltd jointly financing the building of central pulpers at Kitumbalomo village, which are expected to start operation in the 2005/06 coffee season. It is expected that the central pulpers will improve quality of coffee from Mbinga thus, increasing the income of farmers (the trend in the world market now is to sell high quality coffee at the right time). Furthermore, it involves itself in both cultivation and roasting of coffee for the internal market. This is aimed at stimulating the internal market and reducing the over dependence on the export market whose prices are very volatile. Lastly, and equally important, promotion of coffee growers groups which is done through assistance (by loans) in curing coffee from groups with small amounts but high quality coffee and thus, facilitating them to sell coffee at the auction and enjoy the higher prices.

Thus, liberalisation of coffee marketing in Mbinga has forced the MCCCo Ltd., to change its traditional function of curing coffee only, and support other activities from production to processing, transportation, curing to the coffee auctioning. These support activities have facilitated the initiation of the farmers' groups and the revival of AMCOS which now auctions their coffee directly, reduced the domination of the PCBs and enabled farmers to benefit by receiving higher prices from each kilogram of coffee they market. From the discussion, it is obvious that the coffee-marketing system in Mbinga has undergone major changes since the introduction of the 2001 Coffee Industry Act. Various actors have supported farmer's efforts in coffee production and marketing in order to reduce poverty among the people. However, these efforts have brought some misunderstanding and conflicts among and between the district officials as discussed in the next section.

4.4.4. Future Prospects: AMCOS or farmers' groups?

Although empowerment of both AMCOS and farmers groups has provided alternative ways of marketing coffee in Mbinga thereby increasing the income and improving the livelihoods of coffee farmers, the same development have brought misunderstanding among the district officials; cooperative officers and DALDO. The root of the conflict is which of the two institutions should be promoted: farmer's groups or AMCOS? Each side has its own opinion. The cooperative officers would like to see that AMCOS are empowered to engage in coffee marketing and that at the end they should be able to form a district based union. Through that process, the district authorities would like to see that AMCOS face minimum competitions from the PCB and the emerging farmers' organisation. At the other side, cooperative officers and AMCOS would like to see that PCBs are prevented to operate in Mbinga for sometime until the AMCOS become strong enough to compete with PCBs on equal footing. Although in 2002/03, the government did not issues licences to the PCBs to operate in Bukoba in order to rescue cooperative unions that were at the verge of collapse (Baffes, 2003), the same campaign proved fruitless in Mbinga. The difference between the two areas could be attributed to the political influence or level of awareness among the Matengo as compared to the Chagga of Moshi or Haya of Bukoba. Having failed to prevent PCBs from operating, now the efforts of the cooperatives officers and AMCOS have shifted to the emerging farmers groups. In 2003, similar conflicts between the DALDO and cooperative officers were reported to the researcher in Mbozi which indicates that the issues have become common problems in coffee producing areas of Tanzania.

As mentioned earlier, the emergence of farmers' groups is the result of failure of both AMCOS and PCBs to improve prices and services offered to farmers. Having realised that, DALDO is empowering farmers groups through Farmers Field School (FFS), to improve the quality of their coffee and benefit from the higher prices at the auction. Therefore, supporting farmers' groups has provided an alternative way of marketing coffee in Mbinga thereby, increasing the income of coffee farmers and hence improving their livelihoods. The said development has however led to the misunderstandings and conflicts between various officials as mentioned earlier on. It is important to note that training of farmers' groups on various aspects, including management of coffee is one of the activities of the DALDO. Extension officers trained farmers groups even before the liberalisation of the coffee marketing. Thus, according to DALDO, supporting farmers' groups to sell high quality coffee at the auction is their duty and one way of empowering these groups. Cooperative officers on the other hand feel that farmers' groups are created according to clans' line and will end up weakening the AMCOS. However, farmers still have fresh memories of the betrayal of previous cooperative unions (MBICU and MBIFACU) and would not like to commit all their efforts to support the AMCOS. This explains why AMCOS have fewer members as compared to number of the residents in the villages. Thus, the cooperative officers should work hard to improve the performance of the AMCOS, which would attract coffee farmers to join and sell their coffee through their AMCOS. Likewise, by improving their performance AMCOS would be able to compete at coffee market rather than campaigning against farmers' groups.

The mushrooming of the farmers' groups have made some of the AMCOS such as Maguu and Malindindo educate and motivate farmers to sell high quality coffee through AMCOS. Probably, this has been the result of high prices fetched by farmers' groups. It is expected that if AMCOS paid farmers according to the quality of their coffee, this would encourage farmers to sell their coffee through AMCOS. However, after the three coffee season experience of AMCOS engagement in coffee marketing, and the presence of farmers' groups, both performing almost similar activities, it is still not clear if coffee farmers in Mbinga need to form a district-based union or not? This question will be discussed in chapter seven.

4.5. CONCLUSION

Generally, the 2001 Coffee Industry Act, which introduced one licence system brought relief to coffee growers in Mbinga. Initially, both coffee farmers and the Mbinga District authorities were a bit confused and worried when they noted that very few private buyers had applied for licenses to buy parchment coffee in 2002/03. However, as the saying goes: "necessity is the mother of invention". It was from this confusion that the present alternative marketing channels for selling coffee developed. The new actors in coffee marketing, farmers' groups and primary societies (AMCOS), have challenged the domination of the PCBs (both indigenous and foreign). Consequently, PCBs are struggling to remain in the market by increasing prices and services offered to farmers. Moreover, the new Act has empowered farmer's groups; through direct auction, where farmers groups have been allowed to market their coffee directly to the auction. On the hand other hand, AMCOS have devised various strategies in order to survive in the competitive market; to pay farmers in instalments, to issue inputs purchase vouchers and utilising the warehouse receipt system to obtain loans for crop purchase.

Furthermore, the 2001 Coffee Industry Act has minimised the monopoly by PCBs in coffee marketing in Mbinga by opening other channels through empowering AMCOS to sell their coffee directly to the auction. It has thus, increased the chances for farmers to increase their income through their coffee sales. Likewise, the act has given the impetus of selling coffee according to grades, which in a way motivates farmers to work harder and produce high quality coffee. Thus, 2001 Coffee Industry Act has brought flexibilities in coffee marketing. Despite these achievements, however, there are still a few weaknesses on the part of TCB and district authorities. Although the Coffee Industry Act and regulations have made it very clear on how coffee marketing should be conducted, there is weakness on part of TCB and the district authorities who still have to make follow up to ensure that rules and regulations are followed. Their efforts could assure fair deals for all stakeholders including farmers, buyers and district authorities. However, under the current situation, farmers are affected more from cheating and low prices offered by some PCBs than any other group. It is therefore recommended that TCB should work harder in the field to supervise and make sure that coffee trade is conducted according to stipulated rules and regulations.

In conclusion, the new alternative marketing channels have give farmers a big ground to negotiate and the choice to select where to sell their coffee and at what time. Competition among coffee buyers has resulted in increased prices for coffee and thus improved the income level of farmers and their livelihoods.

The preceeding chapter discussed the impacts of economic liberalisation and the major changes brought by 2001 Coffee Industry Act in Mbinga. The following chapter will focus on the current situation of coffee production and marketing in Mbinga. More specifically the chapters will address the problems of coffee cultivation and the strategies of both district authorities, NGO, PCBs to improve the quality of coffee and financial management by the farmers. More important, the chapter will explore how farmers are coping and re-adjust themselves in order to deal with the new challenges.

CHAPTER FIVE: CURRENT SITUATION OF COFFEE INDUSTRY IN MBINGA DISTRICT

5.1. INTRODUCTION

This chapter presents the current situation of the coffee industry in Mbinga. The chapter is divided into three main sections. The first section will analyse the problems of coffee cultivation in Mbinga; pointing out factors such as limited agricultural inputs, low income to farmers and poor financial management among farmers. Having identified the reasons for declining coffee production and the current problems in coffee cultivation, the second section will discuss the new coffee business related structures in the villages while the third section will explore the strategies employed by various stakeholders of the coffee industry in Mbinga to alleviate the situation by improving the quality of coffee, productivity and improving financial management systems among the farmers.

5.2. PROBLEMS IN COFFEE CULTIVATION

5.2.1. Effects of the deficiency of agricultural inputs

Liberalisation of the inputs market and domestic coffee marketing in Tanzania has, among other things, resulted in the availability of inputs at all times in towns centres but at prices which are not affordable by most of the farmers in the villages. Thus, as discussed in chapter three and four, PCBs could not fill the gap created by the collapse MBICU in supplying inputs to the farmers. The collapse of MBICU which used to supply agricultural inputs on loans has forced most of farmers to purchase it on cash, a situation which has decreased the use of fertilisers and other crops. As such, the deficit of agricultural inputs has caused, among other things, the wide spread of coffee diseases such as Coffee Berry Diseases (CBD).

Photo 5.1 Coffee cherries attacked by CBD

Photo 5.1 shows coffee beans attacked by the Coffee Berry Disease (CBD). It has been reported that CBD is very destructive to Mild Arabica Coffee species and it affects production but small holders' farmers who are not capable of purchasing chemicals on cash (TCB, 2003). Thus, with liberalisation of both inputs and output market, the costs of production have increased and ability of the farmers to treat such diseases has decreased. However, TaCRI has introduced coffee seedlings that are resistant to CBD. Success in the efforts to spread of this new variety will reduce both the incidence of CBD and costs of production and thus, making coffee cultivation profitable to farmers.

5.2.2. Low income

Low prices for coffee are caused by a combination of different factors such as the low quality of coffee produced, the use of agents in purchasing coffee, seasonal fluctuations of coffee prices at the auction and the influence of the world market. The following section discusses the impact of each factor to the prices of coffee.

5.2.2.1. Low quality

The prices of the Mild Arabica coffee are influenced by among other factors, its quality. As mentioned earlier on in chapter four, limited incentives among coffee farmers to work hard and produce high quality coffee resulted in the decreasing quality of coffee, which on the other hand, decreased the prices and income of the coffee farmers. It has been reported that, competition among PCBs in purchasing coffee regardless of the quality and the uniform payment irrespective of the grades, motivated some unfaithful farmers in Kitanda village to boil coffee cherries and sell it as parchment to PCBs. Boiled poor quality coffee was sold to the agents who were not interested in the quality, but quantity. Thus, both the farmers and the agents were cheating each other and the practice resulted in a decline of quality and subsequent lowered prices of coffee.

Table 5.1 shows average price by grade in 2004 coffee season, whereby higher grades fetched higher prices. The table is an example of the difference prices fetched by different grades of coffee at the auction. As clearly indicated in table, higher grades, (AA and A) fetch higher prices than lower grades of C and F. The Coffee industry Act stipulates that coffee should be purchased according to their grades. Thus, farmers have the chance of increasing their income if they will improve the quality of their coffee.

Table 5.1 Average prices of coffee by grade in Mbinga in 2004 coffee season

Grade	Price (US$/50 kg)
AA	73.2
A	72.2
B	71.0
PB	70.9
C	70.0
AF	67.3
TT	61.8
F	60.1

Source; TCB auction sales, 2004

5.2.2.2. Black market

Black marketing of coffee (sec 4.3.3.4) was among things that were caused by limited credit facilities to farmers during the lean months of December to May. With a few options opened to them, farmers have opted for *magoma* as the last resort of solving their problems. The accounts of farmers who have been involved in the black market including how they paid the loans have been well presented in chapter four. All in all, most farmers sell their coffee through *magoma* when faced with problems and they usually end up paying more than what they have borrowed. As will be discussed later into this chapter, the initiation of the SACCOS is aimed at cultivating the culture of savings and increase the availability of credit to farmers will no longer need to be involved in black marketing.

5.2.2.3. Seasonal fluctuation of coffee prices

Prices of the Mild Arabica coffee at the auction in Moshi and even at the New York coffee exchange do fluctuate depending on the rules of supply and demand. The tendency shows that from September to December, the prices are higher than those of January to April. There are several reasons behind this. First, most of the exporters would like to purchase good quality coffee at the beginning of the season, which also cause competition among them. Secondly, coffee from the largest suppliers in the world matures late in November and December and arrives in the market in January, which saturates the market thereby decreasing the prices. Previously, farmers harvested, processed and stored coffee in anticipation that the prices would raise. However, recent trend shows that farmers who sell their coffee earlier have better chances of obtaining higher prices per kilogram than others. Thus, farmers groups are trained to sell their coffee when prices at the auction are still high. The figure 5-1 indicates the seasonal fluctuation of coffee prices at TCB coffee auction in Moshi.

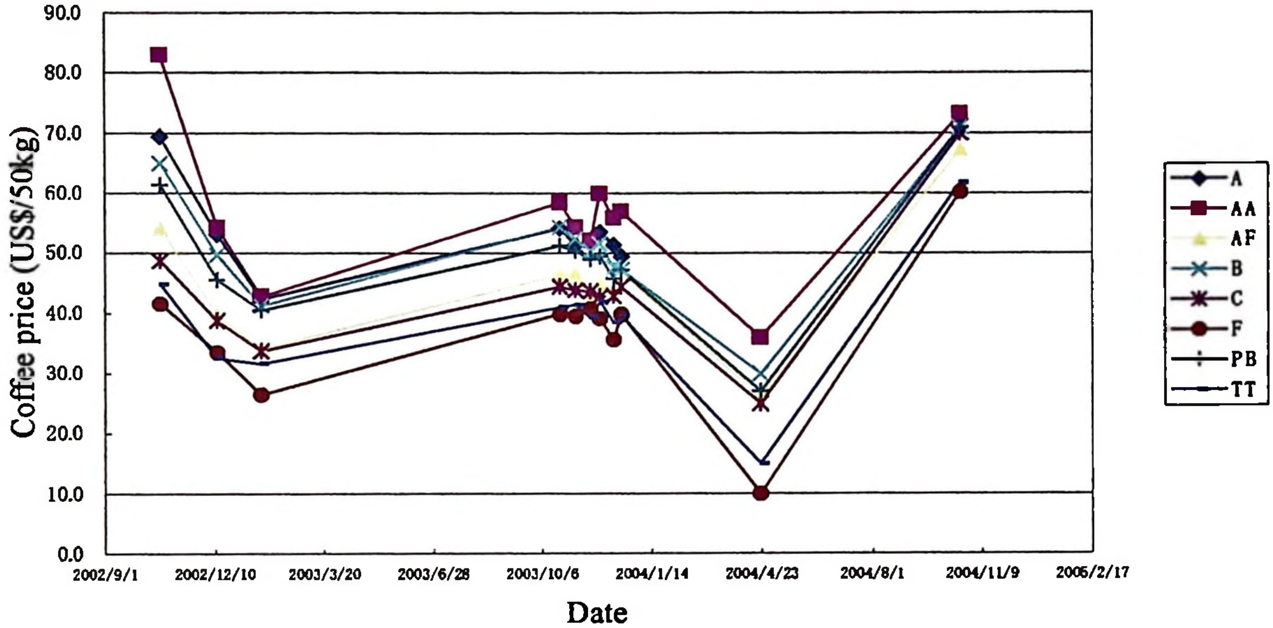


Figure 5.1 Seasonal fluctuations of coffee prices in Mbinga
Source: TCB auction account Sales, 2002-2005

Figure 5.1 indicatives that coffee prices are higher in the months when coffee auction starts in September, October, November and December, and the prices decrease sharply in the subsequent months. Likewise, table 5-1 indicates fluctuations of prices according to grades; the prices of higher grades, AA and A are much higher as compared to prices of lower grades such as F. Therefore, with improved quality of coffee and direct auction at the right time, assures coffee farmers good prices when the prices are still high at the market.

5.2.3. Poor financial management by coffee farmers

Investment in coffee production is a year around activities that require the use of both fertilisers and chemicals. Previously, the farmers' cooperatives supported coffee farmers and even those who started coffee cultivation by supplying them with inputs by loan until they were able to produce and pay back the loans (Ponte, 2002). The liberalisation policy removed the chances for farmers to obtain inputs credits on loan. Consequently, farmers are now supposed to purchase inputs on cash, a situation that has made them, fail to obtain inputs, manage their coffee revenue and support coffee production. Table 5.2 indicates annual agricultural inputs requirement for coffee farmers in Mbinga and estimated costs in 2004.

Table 5.2 Annual inputs requirement and prices in Mbinga town

Type of inputs	Name of inputs(s)	Application months	Estimated Prices
Fungicides	Blue and red copper 1.5 kg per acre/time	September, December and May	Tshs. 3,000-5,000 per kilogram
Pesticides	Dursban, Sumithion 0.5 litre per acre/per time	September, January, March and May	Tshs. 11,5000 per litre
Herbicides	Gramaxone 0.5 litre/acre/time	January and March	Tshs. 10,000 per litre
Fertilisers	Calcium Ammonium Nitrate and UREA	December (2 bags), Mid February (3 bags) and late March (2 bags)	One bag of 50 kgs for Urea Tshs 20,000, and CAN Tshs. 18,000

Source: TaCRI sub station, Mbinga, 2004

As pointed out earlier in chapter four, the collapse of MBICU in Mbinga forced farmers to seek alternative ways of financing purchase of inputs. Thus, limited credits for purchase of inputs, and inability to managed income among the farmers have resulted in the decline in the production of coffee (TCB, 2001). At the same time, lack of credits in the rural areas has been capitalised by few individuals who have started illegal coffee related business in the villages. The following section explains this new business in the villages by giving example from some of the actors.

5.3. NEW COFFEE RELATED BUSINESSES IN VILLAGES

The liberalisation of the coffee marketing has brought about new type of coffee related business in the villages. Some villagers have capitalised on the current problems of the coffee industry in Mbinga by engaging themselves in the black marketing of coffee. In addition, coffee cherries have been transported from sub villages to the pulping points for processing by the black marketers.

5.3.1. Emergence of coffee buying agents

As explained in chapter four, PCBs have reduced their operation costs by using middlemen to purchase coffee from farmers. The use of middlemen reduces the costs of collection of coffee to the PCBs who stay in Mbinga, and purchase coffee from the agents. This method has resulted in the collection of poor quality coffee, since the agents have been competing to purchase coffee according to quantity but not quality. The middlemen collect coffee regardless of their quality and payment is uniform. Ponte (2002) noted that, PCBs would like to spend as short a time as possible in collecting coffee, regardless of the quality and pay uniform prices irrespective of the grades, such that, farmers lack incentive to produce high quality coffee. Furthermore, the middlemen do not indicate their purchasing prices to farmers and thus, exploit the liquidity problems facing the coffee farmers at various times to purchase coffee at lower prices. During the interviews it was found out that some of the villagers have sold coffee to the PCBs without knowing which company they have sold their coffee to. Probably, most of them have sold coffee to the middlemen unknowingly. However, middlemen are operating illegally because they are not licensed to purchase parchment coffee from farmers. Therefore, the use of agents in coffee marketing in Mbinga has decreased the link between farmers who are the producers and PCBs who are the buyers. The following section divides middlemen into three main types; guiders, sub-agents and agents, and evaluates their activities and roles in the coffee marketing chain in Mbinga.

5.3.1.1. Village guiders

Guides are farmers who act as middlemen between their fellow farmers and buyers. They receive and direct the prospective coffee buyers where they can purchase coffee. During the interviews, it was discovered that sometime coffee farmers are suspicious to sell coffee when approached by the person they do not know. As such, they feel more comfortable to sell it to someone accompanied by a villager they are familiar with. Therefore, importance of guides in the village coffee chain is their familiarity and their ability to investigate among the farmers who have coffee and might be willing to sell. Having established who has parchment coffee in the villages, the guides will introduce the prospective buyers to the farmers. The guides do not serve the outsiders only, but also villagers who are agents and sub agents of PCBs. For example, an agent who lives in sub village A and would like to purchase coffee in sub village B might not know where to get coffee and thus, consult a guide. On this respect, the role of a guide is to guide an agent to farmers with coffee. However, in case of PCBs, the guide assists by directing, introducing and convincing the farmers to sell coffee at cheaper prices. As a result, village guides play a crucial role in the illegal marketing of coffee, by linking sub agents, agents and PCBs to farmers with coffee. Figure 5.2 demonstrates the coffee marketing linkage between PCBs, agents, sub agents, guides and farmers. In addition, it indicates the recent trend of marketing of both parchment and cherries. The emerging trend of purchasing coffee by the villagers-cum-agents, which is done through negotiations between coffee farmers and agents works in the benefit of middlemen and exploit farmers who have worked hard and invested both financial and human resources in the production of coffee sold.

The use of self appointed coffee marketers has decreased the contact between coffee farmers and the buyers, which has in turn denied the chances to farmers to obtain essential services such as input vouchers. Consequently, coffee farmers are placed at the bottom of the link, receiving low prices for their coffee and denied inputs purchase vouchers to assist them in purchasing inputs for next season. Having seen the role and functions of farmer guides, the following two sections discuss, in details, the roles of sub agents and agents who purchase parchment coffee.

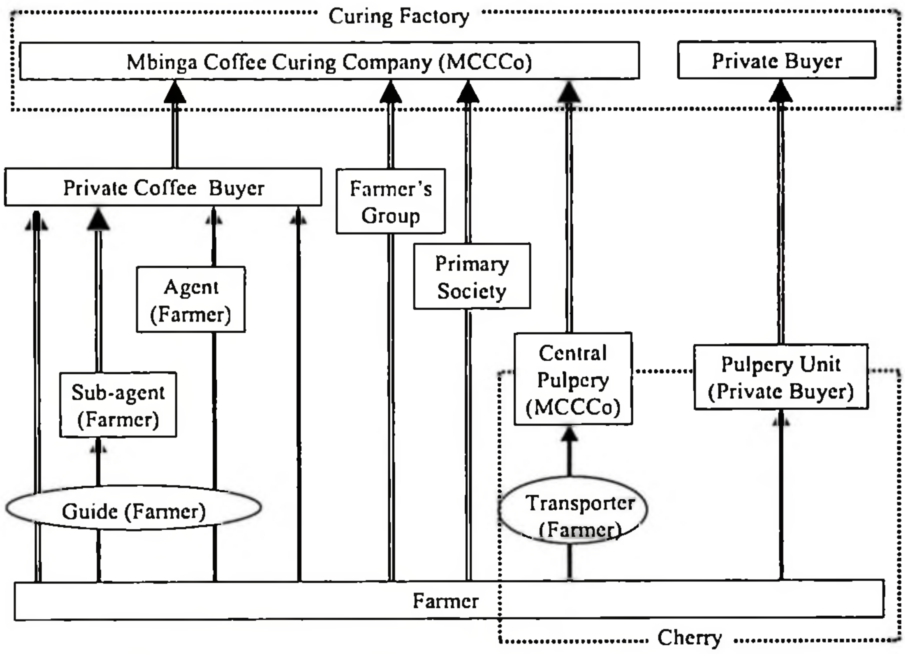


Figure 5.2 New coffee marketing chain in the villages
Source: Researcher Interviews, 2004

5.3.1.2. Village sub-agents

The sub agents are villagers who have been appointed by the PCBs to purchase and store coffee on behalf of PCBs. As such, the only expense incurred by the sub-agents is collection and storage of coffee within the village. For the past three coffee seasons, farmer A is working as a sub agent for a PCB in Mbinga. He narrates his experiences below;

> After the liberalisation of coffee marketing and the emergence of PCBs, there was increasing illegal marketing for coffee in my village. At first, I worked as an agent for three PCBs. Unfortunately, these companies have ceased to purchase coffee in Mbinga. However, the profit I made enabled me to purchase a second hand car. From 2002/03, I approached another company and request them to be their sub-agent in Kindimba village. Because of my past involvement with other PCBs, they accepted me. Before purchasing coffee, a PCB advances Tshs. 1,000,000 and instructs me on how many kilograms should be collected. Thus, my payment depends on how I have managed to purchase coffee from farmers. For example, I purchase one kilogram for about Tshs. 250-300 and sell it to PCBs for about Tshs. 500-600/=, without input vouchers. Thus, on my side to, I do not issue inputs vouchers to farmers, and most of them do not ask for it because they know it is illegal to sell coffee to unlicensed persons. Although it is illegal, this business is very profitable. I have also appointed two villagers who are assisting me in purchasing coffee. Besides, there are villagers who bring coffee at my house during the night.

From this experience, probably it is true that sub agents are benefiting almost as much as farmers themselves. The following section explains the roles played the agents in the villages.

5.3.1.3. Agents

The agents are villagers with capital to purchase coffee at cheaper prices and sell it for profit, either to PCBs or to AMCOS. Most of the agents use their own capital to purchase coffee, even before the purchasing season. The agents, some of them with second hand cars, have transported coffee on their own from the villages to Mbinga town and sell it to PCBs. By using agents, the PCBs are maximising profits by reducing the costs of mobilising collection of coffee and transportation from the villages to Mbinga town. Farmer B from Mkumbi village is among the agents in Mbinga. The following section narrates his experience on illegal coffee marketing;

> For the past three years, I have been actively engaged in purchasing parchment coffee from farmers even before the opening of the season and I do not issue receipts. What is needed in this business is starting capital to purchase on cash. The months of April, May and June are the best time for my business because of limited cash income in the villages. As such farmers who need cash for domestic expenses, emergencies and traditional ceremonies can sell coffee at any price. Although I have only 2,000 coffee trees, through purchasing coffee from other farmers, I have managed to sell more coffee than what I produce from my field. I have sold coffee to AMCOS, and received inputs purchase vouchers. I have used inputs purchase vouchers to obtain agricultural inputs, part of which I used for maintaining my coffee farm and the rest were sold to villagers on loan. For the 2004/05, I obtained a total of Tshs. 5,250,000/=, and used part of this money, Tshs. 3,500,000 to buy a second hand Land Rover. I use the car for transporting coffee, passengers and goods from Mkumbi village to Mbinga town. This new business has reduced my time of purchasing coffee from farmers and forced me to engage guides to assist me in collecting and purchasing coffee in the villages.

Table 5.3. indicates the activities of an agent in purchasing parchment coffee from farmers and selling to AMCOS.

Table 5.3 Coffee purchased and sold by an Agent in Mkumbi village

Coffee season	Amount in kilograms	Purchasing prices Tshs.	Selling prices Tshs.	Sold to whom	Reasons for selling
2002/03	9,800	200-300/=	480	Longa AMCOS	Availability of inputs vouchers and high price offered
2003/04	24,000	260-350/=	514	Longa AMCOS	Avoid conflicts within his village AMCOS
2004/05	7,000	280-310/=	750	PCB	Increased prices
	3,447	280-310/=	414	AMCOS	Multiple payment and vouchers

Source: researcher interview at Mkumbi village, Mbinga

It also indicates the reasons for selling coffee to either PCB or AMCOS. A profit made by an agent and loss made by farmers can be cited to show how lack of rural financial services have forced farmers to seek alternatives which have affected them financially. Although the income from coffee increased after economic liberalisation, it was however, only for the short term and probably, not enough to enable most of the village purchase second hand cars without using the illegal methods such as black marketing of coffee and/or purchasing inputs vouchers at lower prices.

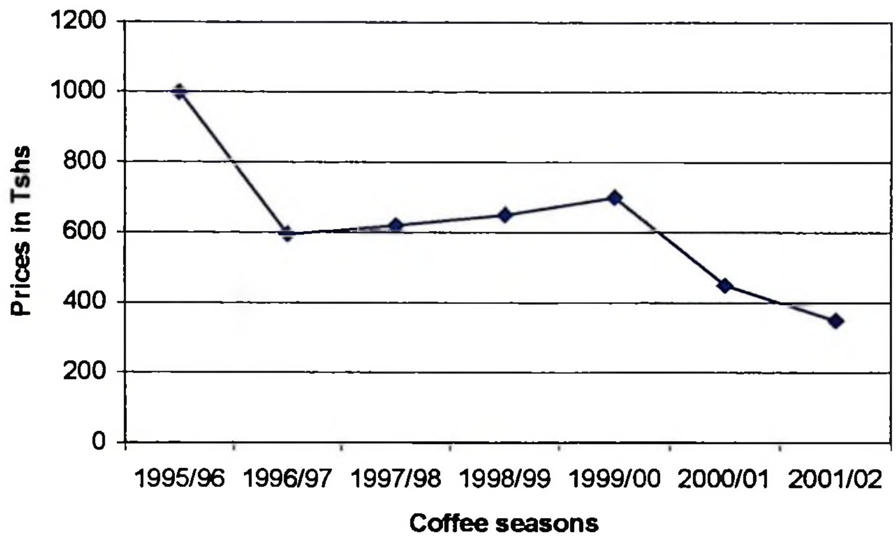


Figure 5.3 Trend of average coffee prices paid to farmers in Mbinga
Source: Mbinga District Council Agriculture Dept, 2003

Figure 5.3, also indicates that the prices of coffee in Mbinga have been fluctuating from Tshs. 1000/= in 1995/96 to Tshs. 350 in 2001/02 coffee seasons. Working from these data on prices, we can say that probably the rumours that some of the villagers who managed to purchase second hand cars were engaging in the black marketing for coffee are right. Furthermore, one can accept the rumours from the villagers because most them know each other and could recall who were engaged in the illegal coffee business. From the above statement by one coffee agent, it is obvious that, any villager with capital has a chance to engage in illegal coffee marketing. The loophole of the business lies in the fact that during the lean months of February to May, farmers need money for solving various problems facing them. However, farmers obtain most of their cash income from the sale of crops which by then are not ready for harvesting. In this way, coffee becomes the only crop they can exchange. From this point of view, farmers are driven by necessities to solve their immediate problems and thus cannot select where to sell coffee and how much they will obtain. Lack of capital and failure to get credits during lean months has been capitalised on by a few villagers to exploit others and accumulate wealth thereby facilitating the process of rural stratification among the Matengo including the coffee agents, the sub agents and the ordinary coffee farmers. Although farmers are well aware that selling coffee to the illegal market jeopardises their chances of obtaining inputs for the following season, they are forced by circumstances and limited alternative sources of income. As a result, this new coffee business in the village affects farmers who cannot get input vouchers from the middlemen and thus, threatens the future of coffee cultivation. On the other hand, agents and PCBs are benefiting by buying coffee at lower prices without issuing input vouchers to farmers.

Farmers in Kitanda and Kindimba villages have expressed the difficulties they are experiencing to budget and purchase inputs if paid on cash. Failure to purchase inputs means that farmers will not use inputs in the coming season and thus, decreases coffee productivity. Thus, the use of middlemen in coffee marketing had increased the gap between the producers and buyers and thus denied the farmers their right of obtain inputs vouchers. According to the Village Executive Officer (VEO) of Kindimba village, the presence of middlemen in coffee marketing has accelerated theft of parchment coffee in the villages and consequently, motivates farmers to sell coffee in the form of cherries. Several reasons have contributed to increasing theft. First; it is easy to sell coffee to the agents who are desperate to purchase coffee in the villages regardless of the quality. Second, both PCBs and AMCOS are willing to purchase coffee from anyone who will sell to them. Cumulative effects of free trade have been increasing incident of theft of parchment coffee in the villages (interviews with VEO of Kindimba village, March, 2004).

Despite the total area of 34,000 hectare under coffee cultivation, Mbinga District has only 23 mini and central pulpers; mostly located in the Highlands areas. Thus, limited pulping facilities leave no alternative for coffee farmers without access to these facilities except processing it domestically. Increasing accessibility to pulping facilities would have assisted farmers both in reducing workload of processing coffee at home, selling coffee in the form of cherries and thus avoiding theft and increasing quality of coffee (by processing coffee under the required standards). The cumulative effects of all the above would be to increase both income and livelihoods of coffee farmers. Thus, the emerging trend is from farmer-villager-PCBs coffee chain. In theory, free market was aimed at increasing the direct contact between farmers and buyers and as a result, increases market efficient and prices paid to farmers (Hill, 2001). The case from Mbinga has shown that the free market has diminished the contact between farmers and final buyers and as such has jeopardised the chances for farmers to obtain input purchase vouchers. On the other hand, the use of middlemen to purchase coffee in the village has reduced the operation costs on the part of the PCBs.

5.3.2. Transportation of coffee cherries from farmers to CPU

This section will present the newly emerging trend of transporting cherries coffee within and out of the village. The first part presents the transportation of cherries within Kindimba village, from sub-villages located far from the CPU. The next section deals with the emerging trend among PCBs, of collecting coffee from one village and transporting for processing to another village.

5.3.2.1. MCCCo Ltd

As started earlier, liberalisation of coffee marketing in Mbinga has attracted different investors and thus, provides farmers with different options for selling coffee. In Kindimba village, competition between PCBs and the MCCCo Ltd has resulted in a service that is designed to assist farmers to transport their cherries and market their cherries on the same day. The respondents in Kindimba have indicated that availability of transport from their sub villages to the CPU is among the reason for selling their coffee at the Ngaka CPU. There are two reasons given by the MCCCo Ltd as to why they are assisting farmers to transport their coffee cherries from their sub villages to the Ngaka CPU. First, if coffee is picked and processed on the same day, there is possibility of producing high quality coffee which fetches high prices, if auctioned at the right time. Thus, transport assistance came after the realisation that farmers from sub-villages located far from the CPU couldn't afford to harvest and process their cherries on the same day. This was the case for the farmers who reside in the sub-villages located far from the CPU such as Mtungu, Torongi, Walanzi, who more often harvest their coffee and take it to the CPU on the next day. Transportation of cherries is arranged in such a way that three vehicles hired by the MCCCo Ltd, collect coffee cherries from designed locations in the village and transport it to the CPU. After transporting coffee from various points in the village to the CPU, the transporters claim their costs from MCCCo Ltd, which pays on behalf of the farmers, after auctioning coffee. The MCCCo Ltd deducts Tshs. 6.00/- from each kilogram of coffee transported as payment for transport cost.

The second reason is the increasing incidence of theft of parchment coffee in the villages and reduction of workload. As mentioned earlier, liberalisation of coffee marketing has increased the farmers to sell their coffee. With increasing marketing channels, both official and non officials, the theft of parchment coffee has increased. Farmers in Kindimba village have complained against increasing incidences of theft of parchment coffee. It is reported that, in order to process and sell coffee as parchment, a family must make sure that one member remains at home at all time to guard the coffee. Thus, with many agricultural related tasks facing a household, most of the farmers in Kindimba have opted to sell their coffee as cherries. Thus, provisions of transportation, increase in coffee prices in the 2003/04 season, payment in instalments, issuing of agricultural inputs vouchers, coupled with workload of the Matengo household, have provided incentives for the Kindimba coffee farmers to sell coffee at the Ngaka CPU. The efforts of the MCCCo Ltd are expected to increase the income of the farmers and consequently, assist in the efforts of reducing poverty among the farmers in Kindimba and neighbouring villages. The auction prices of coffee produced from Ngaka CPU in the 2004/05 auction indicate that the availability of transport has motivated most of the farmers to pick and sell coffee on the same day which has improve the quality and prices of their coffee at the auction. However, it remains to be seen how the farmers in Kindimba will be paid for one kilogram of cherries in the 2004/05 season.

5.3.2.2. PCBs

Some of the PCBs that purchase parchment coffee in Mbinga have been seen to purchase coffee from one village and send it to another village for processing. This is the case of a PCB who had a three-year contact of managing a mini pulpers unit at Unango village. The contract was signed between the PCB and Nzasa farmers' group called at the village. The contract demanded that the PCB install and manage the pulping machines, provide payment for labourers and maintain the mini pulpers facilities for example, constructing new water storage and fermentation tanks. Observation done at the sight of the mini pulpers and the accounts from members of the group revealed that the PCB was not interested in maintaining the facilities for a long time, but only to create minimum conditions for him to operate. The contract expired in 2003/04 coffee season and farmers groups were no longer interested in renewing the contract, anticipating that another company might come up with more attractive offer. Meanwhile, the same PCB was allowed to continue to purchase coffee from farmers without a written contract. Thus, the PCB has utilised this chance by initiating a new kind of coffee purchasing business in the village. Instead of installing a pulping machine, he has decided to purchase coffee from Unango village and transport it for processing at Ngima central pulpers. This new business seems more profitable to the PCB than the previous arrangement of managing the mini and central pulpers on contract basis. Management of the pulpers machine entails purchasing of the drying wire, construction of the drying table, maintenance of storage tanks and fermentation tanks and water channels. Beside, there are also payment for labourers as well as allowance for agricultural officers responsible for overseeing the activities of the CPU. Probably, the PCB is avoiding the costs of maintaining the pulpers in some villages by collecting coffee from the several villages with mini pulpers and process it in one CPU.

5.4. STRATEGIES ADOPTED BY DIFFERENT ACTORS IN MBINGA DISTRICT

This section will discuss the various coping strategies adopted by the different actors in the coffee industry in Mbinga. The next section will critically discuss efforts taken by the said actors such as farmers, DALDO, TaCRI, Techno Serve, MCCCo Ltd. and PCBs to improve coffee productivity and quality, and thereby, increasing prices and income to the farmers.

5.4.1. Improvement of coffee productivity and quality

As stated earlier, marketing of the Mild Arabica coffee is highly influenced by quality standards. Therefore, the current trend in both the Moshi coffee auction and the New York coffee exchange market reveals that the higher the quality of coffee, the higher the price and income to coffee farmers. However, there is an exception to this rule, depending on the timing of the auction. Since the prices of coffee fluctuate so much in the same season, it is therefore important for farmers to understand the mechanism of the market as well as coordinating their timing to take advantage of higher prices. The data on current trends in the world market has inventories that keep the prices of coffee down. However, this has cumulative results involving both Robusta and Mild Arabica varieties. In the sense, the prices of Mild Arabica will continue to be higher, so long as farmers continue to produce good quality coffee. Thus, there are different prices for high quality coffee. The higher the quality, the higher the prices and subsequently increasing income to farmers. The current changes in the global coffee market is the results of globalisation, which at one point increased the production of coffee and on the other, increasing the importance of consumer preference in determining what is produced. As a consequence, farmers must adjust and produce high quality coffee, which has consumer preference and requirements. Having realised this trend and advantages of Mild Arabica coffee, the various stakeholders in Mbinga District have made initiatives to sensitise and train the farmers on the importance of producing high quality coffee as opposed to normal coffee. Availability and use of central pulpers in processing coffee is one of the important criteria for producing high quality coffee. Among the three major Mild Arabica coffee zones of Kilimanjaro, Arusha, Mbeya and Ruvuma, Mbinga district has more central pulpers than other areas. While in other areas central pulpers have been introduced recently in efforts to improve the quality of coffee, Mbinga has a long history of central pulpers. Historical accounts show that Ngaka and Lituru CPUs were built before Independence. Probably, the presence of water and the availability of enough land for accommodating pulping machines and drying spaces were the reasons why CPUs were introduced in Mbinga earlier.

Mbinga district has a total of 34 mini and central pulper units whose ownership is distributed as follows: 9 by farmers groups; 12 by AMCOS and 13 by PCBs. However, despite the ownership of the pulper units in Mbinga, coffee from Kilimanjaro has gained a better reputation than that from Mbinga. In fact, there is a combination of factors that are important for production of high quality coffee, such as altitude, rainfall, soils characteristics and availability of water. The geographical location and soil characteristics give Kilimanjaro an advantage in coffee cultivation than Mbinga. The following section discusses the initiatives taken by various stakeholders in Mbinga to improve the quality as well as quantity of coffee as one way of increasing income of the farmers and thereby improve their livelihoods.

5.4.1.1. Farmers' Field Schools (FFS)

Farmers' field school (FFS) is an extension approach that has been employed by the District Agriculture Office and TaCRI to train farmers' groups on better methods of coffee management and post-harvest procedures through a practical, as opposed to a theoretical, approach. FFS is an approach used for adult learning which has evolved from the assumptions that farmers learn more easily through field observations and experimentation (FAO, 2003). In addition, the FFS approach draws more from existing research to develop farm solutions, rather than training farmers on new technologies which have been developed outside their environment. Thus, by using this approach, farmers are learning by doing, while participating in the whole process of experimentation, discussion and decision-making.

The philosophy behind the FFS approach is to enable farmers learn through practical, as opposed to the classroom environment that lacks practical application, and to diffuse the knowledge that is gained. By participating in the project, FFS assume that it will raise farmer's understanding of basic scientific processes taking place in their fields. Furthermore, to ensure sustainability of the FFS, it is expected that the farmers will disseminate knowledge to their neighbours through information communication (World Bank, 2003). Thus, the vision of the FFS is to educate as many farmers as possible through creation of the model/progressive examples. In Tanzania, the FFS approach was introduced by the International Fund for Agricultural Development (IFAD) as an alternative approach to agricultural extension which dominated farmers' training before the introduction of SAPs (IFAD, 2002). As mentioned earlier, the introduction of SAP resulted into, among other things, reduction of government employees including extension workers who used to train farmers on various matters relating to agriculture and livestock management. Therefore, FFS was introduced to cover the gap left by the implementation of SAPs policies (DALDO, 2003).

FFS groups organised by the DALDO are not permanent, and thus, differ from the groups organised by the Techno Serve, which deals with the same groups on a permanent basis *(personal interviews with DALDO on 21/10/2004)*. The difference between the two organisations is that, DALDO would like to reach as many farmers as possible through groups and expects that trained farmers will disseminate information to others. FFS empowers farmers through learning about farmers' performance, techniques and management options that can be used to improve coffee quality and productivity. Thus, empowerment of farmers is quite vital in order to reduce the poverty among the coffee farmers and improve their livelihood. Through experimentation or participatory learning techniques, FFS help farmers improve their knowledge on coffee production and post harvest techniques. For example, through FFS training, one coffee plot is chosen for demonstration, and farmers are trained by performing practical activities in a session. During the training session, a group of farmers observe and discuss various aspects related to coffee production and processing; from planting, pruning, application of inputs, timely harvesting, and processing as well as proper storage. The major objective is to assist farmers improve the quality of their coffee and ensure that it will fetch good prices at the auction. The ultimate goal is to increase farmers incomes and reduce poverty. UJIJITAMA farmers group in Mbinga is one of the groups which uses the FFS approach in conducting their activities relating to coffee management and processing.

Although dissemination of information is aimed at reaching as many farmers as possible, however, it remains to be seen if the trained farmers will be willing and capable of disseminating this information to others. One positive result of the FFS approach in Mbinga is the increasing number of farmers' groups which would like to sell their coffee direct at the auction. As a move to improve the coffee quality that fetches high prices at the action, the DALDO office has regulations which allow only FFS groups to sell their coffee direct to the auction. Probably, this regulation is aimed at first, limiting groups of farmers with poor quality coffee from selling to the auction thereby forcing them to improve quality first before directly auctioning their coffee. However, sustainability of the FFS approach depends on the efforts of the DALDO to make follow-ups to evaluate the dissemination of knowledge done by the trained farmers on to their fellow farmers. Otherwise, the FFS approach might be a waste of time and resources for both farmers and the government.

5.4.1.2. Tanzania Coffee Research Institute (TaCRI)

Ugano Coffee Research Centre in Mbinga is the branch of the Tanzania Coffee Research Institute (TaCRI). However, over the years, several changes have occurred at the TaCRI that are beyond the scope of the present study. In brief, TaCRI was established by the stakeholders of the coffee industry after hearing the cry of coffee farmers about decreasing of coffee revenue and production. In 1999, the Tanzania Coffee Research Institute (TaCRI) was given the full mandate of reviving the coffee industry. It started its works in that direction in September 2001. The centre focuses on solving two major diseases threatening the coffee industry in Tanzania; Coffee Leaf Rust and Coffee Berry Disease TaCRI, 2003).

The coffee research is funded mainly by the coffee industry through coffee research cess (0.25 percent) of the realised auction prices. During a visit to the Lyamungo Centre in July 2003, it was found out that TACRI had managed to produce eight varieties which were resistant to the two major diseases. From the explanations given by the researchers at the centre, hybrid varieties are not produced by seeds, but rather by vegetative methods (cuttings). Likewise, the hybrid seeds produced at Lyamungo research centre are characterized by large bean sizes, good taste and smell, high yields and early maturing (a 2 year difference from the traditional ones). However, the centre has limited capacity of producing enough hybrid variety seeds and thus, farmers are encouraged to initiate groups, collect seeds from TACRI in Lyamungo, which may then be produced at their own nurseries according to their needs and demand.

A cursory observation of the TaCRI operations and history reveals that TaCRI is still in its infancy, and that it is still laying the foundation for future research and development of the coffee industry. Prospects look very good given what they have on their plans. As stated above, TACRI is currently concentrating on multiplying and distribution of CBD-resistant coffee varieties to farmers. It is expected that the fruits of the research would benefit farmers in Tanzania in reducing the incidences of diseases, especially CBD in Mild Arabica coffee. In Mbinga, TaCRI offers two kinds of support to farmers groups; technical/training support and introduction of new disease resistant varieties of Mild Arabica coffee. The introduced variety of the Mild Arabica coffee is aimed at controlling the spread of diseases and produce better quality coffee. Unlike the previous varieties that were produced using seeds, the new variety is produced by using the crone, which makes it more difficult to produce on a large scale for all the Tanzanians coffee farmers. Having realised those obstacles Ugano research centre (TaCRI) in Mbinga has started the dissemination of the coffee crones to farmers groups using the FFS approach. This means that farmers in groups are learning the production of the crones hands-on and through that way, some have managed to replace the old varies with the new one. The objective of working with farmers' groups is that they are trained on the techniques to manage the crones in their groups' plots and start distribution, first among their members and, later on, to other farmers. Photo 5-2 indicates a coffee farm which has been replanted by using the new introduced disease resistant crones at Myangayanga village.

Photo 5.2 A coffee plot planted with newly introduced disease resistant crones at Myangayanga village

Coffee is a major income source for most of the farmers in Mbinga. It takes three to 5 years for a coffee tree to start production and to reach maturity stage. Thus, advising farmers to replace their coffee trees at once will jeopardise their chance of obtaining income and as such they will not positively receive the advice. Thus, to solve this problem, farmers can divide their coffee plots into four. During the first year, a farmer should uproot a quarters of his old coffee trees and plant the new variety. He should repeat the same for four year. Since the new introduced variety take only two years to start producing high yield as opposed to the old varieties, the farmers will be assured that by the fourth year, his production will be equal or more than his harvest from the old plot.

The introduction of the new varieties has already assisted farmers in reducing costs of production by reducing the usage of agriculture inputs whose costs increase day-by-day while the income from coffee are not stable and quite unreliable.

5.4.1.3. Activities and performance of NGO (A)

NGO (A) works with the selected farmers groups on production, post harvest management as well as marketing of their coffee. Unlike the approach used by DALDO, the activities of Techno Serve are on permanent basis. This is based on their philosophy that good quality coffee is the result of combination of several factors, from farm management, to processing and storage (Techno Serve, 2003). To achieve these objectives, the registered groups are closely supervised to make sure that they follow all the instructions to ensure production of better quality coffee.

The following sections give a critical account of the activities of NGO (A) in Mbinga. These include the following, first, training selected farmers' groups on product quality improvement is aimed at shifting from normal to speciality coffee, which has high demand. This is done through training on post-harvest processing and business management. Training to such groups is done in collaboration with DALDO, TaCRI and other extension officers. Probably this collaboration of different stakeholders has brought confusion in identifying the affiliation of the groups. For example, the DALDO has assigned an extension officer from his office to work with NGO (A) on training farmers groups on coffee management and post harvesting coffee processing. Thus, it is commendable that different stakeholders in Mbinga do collaborate to ensure that farmers produce high quality coffee that fetches high prices for them. High quality coffee will improve the income of farmers as well as assist them in fighting poverty.

Second, it is estimated that, it takes about six weeks from picking time to auction coffee. Thus, during this time, farmers will need money for paying labourers, other activities as well as domestic needs. Besides, there are operational costs such as transportation, curing, bagging and storage which must be paid before auction. Since most of the farmers groups cannot afford to pay for these services, NGO (A) pays on behalf of the farmers and at the same time, guarantee farmers to obtain loans from banks. Both loans, from NGO (A) and the bank are paid after auctioning their coffee. Although credit linkage facilitates marketing of coffee by covering initial operational costs before coffee is auctioned, however, it create dependence more than empowering farmers to learn how to save money and raise their own capital. Credit linkage should be a short-term solution, and at the same time, supplement it with training on savings and credit as long-term objective to reduce dependence on NGO (A).

Third, market identification or linking farmers groups to the coffee market. Increasing number of farmers' groups under NGO (A) probably indicates that farmers are satisfied by their services. For example, in 2002/03 when NGO (A) started its operation in Mbinga, it supported only 20 groups but has increased to 37 in 2004/05. Thus, Farmers have also been attracted by prices offered by AKSCG as compared to other buyers. Informal interviews at Mbinga revealed that NGO (A) manage to pay relative high prices compared to other; NGO (A) sells their coffee at the auction to Dorman which then exports it to Volcafe both of which support AKSCG activities. However, it is not clear if NGO (A) is really committed at supporting coffee farmers to produce high quality coffee that fetches high prices or is simply conducting business like any other PCBs.

Fourth, NGO (A) has also introduced two types of mini pulping machines as support to four farmers' groups that they work with at Kipololo, Lingomba, Mkuhi and Lutondo villages. This is a move to improve the quality of coffee produced by the groups through establishing processing stations at which farmers groups will process their coffee. The semi pulpers' machines have more advantages as compared to conventional central pulping machines since they reduce the coffee processing time almost by half. Using this machine, farmers do not need to ferment their coffee since it removes the mucilage and thus, cuts down fermentation and drying time to half. For example coffee from CPU in Mbinga requires around 14 days to process but with the new machine it takes only 5 days. The machines are good for farmers because of the reduction of labour time that is invested into coffee processing which in turn is utilised in other productive activities. Although the machines were procured on loan after a feasibility study that demonstrated their economic viability and the farmers' capacity to repay the loans in time, it remains to be seen if these groups will manage to sustain their production and at the same time pay the debts.

NGO (A) in Mbinga has been accused for lack of transparency. There has been failure to give coffee growers the feedback on how much has been obtained at the auction. Although farmers groups produce high quality coffee that fetches higher prices, they are not involved, in deciding, the method in which they should be paid. Farmers do not have access to information on auction sale and as such are not sure if what they are paid is what they deserve or not. For example, in 2004/05, groups that are organised under TaCRI auctioned their coffee and managed to obtain Tshs. 850 per kilograms and members had access to the auction sheets. However, those under NGO (A) did not know the auction prices of their coffee and they were paid Tshs. 720 per one kilogram of parchment coffee. Therefore, although the number of farmers groups under NGO (A) is increasing, there are also members who are withdrawing themselves from the same groups because of lack of transparency. For example, at Mkumbi village, some of the interviewees were former members of the groups that is supported by NGO (A) but decided to remove themselves because of lack of transparency and joined other groups. As a result, the District authorities are watching the activities of the NGO (A) with suspicion. At first, NGO (A) encouraged farmers to sell through them only high quality coffee (special grade). As for now NGO (A) has started to encourage farmers to collect any kind of coffee, even poor quality one. However, from 2003/04, the approach of NGO (A) has been to encourage farmers to collect all kind of coffee and market through their groups. This is contrary to their earlier mission of assist farmers to market only high quality coffee from farmers groups. Hence, there is a danger, that those who brought good quality will be paid equally, like whose who brought poor grade coffee (average prices). From the above observation, it seems as if NGO (A) is transforming itself from the NGO which supports farmers' groups to improve quality of their coffee and facilitate marketing to a PCB which is interested in the quantity and not quality of coffee collected. Moreover, the two international companies that finance NGO (A) have changed the nature of their activities indirectly after the 2001 Coffee Industry Act. Before the act, the two PCBs companies involved themselves in purchasing coffee from farmers, but now they have created an organisation that will act as an NGO with the mission of supporting farmers, while at the same, operating as any other PCB.

5.4.1.4. Mbinga Coffee Curing Company Limited (MCCCo Ltd*)*

The liberalisation of coffee marketing not only affected farmers' groups and their cooperative unions, but also the MCCCo Ltd. Before liberalisation of coffee marketing, it was projected that by 2005, the MCCCo Ltd would operate at full capacity, curing 20 tons of parchment coffee per year. The company has however, been operating at only half capacity due to decrease in coffee production as well as competition from other PCBs which have also built a curing factory thereby eroding the monopoly of the MCCCo Ltd. to function at full capacity. Thus, faced with this competition from private investors, MCCCo Ltd. had to change its mode of operating, from waiting for the customers to bring coffee for curing, to going to and assist and support producers to produce and bring coffee to the factory. Thus, their outreach strategy has helped them to remain in business and operating at profit.

Having said that we now turn to the role played by MCCCo Ltd. in improving the quality of coffee and raising the farmers income in Mbinga.

MCCCo Ltd performs two major functions in improving the quality and productivity of coffee in Mbinga; supporting and introducing central pulpers and assisting farmers groups to sell their coffee at the auction. With regard to supporting management of central pulpers, MCCCo Ltd., in collaboration with the Kindimba village government, supports the running of Ngaka Central Pulpers unit (CPU), which purchases coffee cherries from farmers from Kindimba and neighbouring villages of Kilanga Juu and Mahenge. MCCCo Ltd. supports the management of Ngaka CPU by providing money for payment of casual labourers, purchasing of diesel and maintenance of the pulpers machine, issuance of first payment for coffee. Moreover, as will be discussed later on, MCCCo Ltd assists farmers who reside in sub-villages located far from the CPU to transport their coffee cherries to the Ngaka CPU on the same day. This has eliminated the previous problems whereby some farmers harvested coffee failed to take it to the CPU on the same day. Availability of vehicles which collect coffee from Kitunda, Ndembo, Kindimba, Torongi sub-villages at a cost of Tshs. 6.00 per kilogram has double advantage; first it has improved transportation of coffee to the factory and reduced workload to the villagers; and secondly, it has improved quality of Ngaka CPU coffee since, in order to get good quality, cherries must be processed on the same day on which they were picked. Failure to process coffee on the same day will lower both quality and prices paid to farmers. As a result of good management and quality control of the CPU, data from TCB coffee auction indicates that prices of coffee produced by Ngaka CPU were among the highest in Mbinga during the September and November 2004 auctions. For example, in the auction that was conducted on October 28, 2004, 50 kilograms of AA grade from Ngaka CPU fetched US$ 110 (equivalent to US$ 2.2 per one kilogram) as compared to 50 kilogram from Maguu AMCOS which fetched US$ 74.2 (US$ 1.5 per one kilogram). This means that farmers who sold their coffee to Ngaka CPU are likely to benefit more in the 2004/05, compared to 750/= which they received in the 2003/04 coffee season (Interviews with the General Manager in March and October, 2004).

Although MCCCo Ltd assists in the transportation of coffee from Kindimba CPU to the curing factory, paying for curing costs and transportation of clean coffee to the factory, interviews with the secretary of Ngaka AMCOS revealed that there is no written contract between the two parties on the prices that will be paid to farmers. Nor is it predetermined in what ways the village government will benefit from the management of Ngaka CPU. The prices paid to farmers are a function of auction prices minus the total costs incurred by the MCCCo Ltd. Despite the above weakness, farmers in Kindimba admit that MCCCo Ltd is assisting them in various ways for example, by avoiding thefts of parchment coffee.

The second MCCCo Ltd support to farmers groups and AMCOS is, transportation of coffee from Mbinga to Makambako storage warehouse. Transportation services are crucial to farmers' groups since most do not have capital and as such, cannot afford to pay for initial costs such as transportation and curing levy. However, this service is not provided for free. It is deducted from the auction sale of the groups' coffee. Likewise, MCCCo Ltd supports farmers groups by contributing in the construction of the CPU as was the case of Kitumbalomo village.

From the ongoing discussions, we can observe that, despite a few weaknesses on the side of the MCCCo Ltd., it has nonetheless played a significant role by transforming a coffee curing factory into an organisation which is supporting coffee production as well as improving the quality of coffee produced in Mbinga (Photo 5.3).

Photo 5.3 Quality control: inspection of delivered coffee at MCCCo Ltd

Despite all these efforts which are done by the MCCCo Ltd to assist farmers in Kindimba in the management of Ngaka CPU, reduction of workload and thefts, lack of a contract between the two parties and transparency in total costs incurred by MCCCo Ltd and total income from the auction, gives room for suspicion that there is something hidden. For example, villagers of Kindimba are not involved in calculating the costs that have been incurred by the MCCCo Ltd from the beginning of the coffee season. Likewise, they are not involved in calculating and making sure that what farmers have received is commensurate with what they deserve. The weakness of bargaining among the villagers is rooted on the assumptions that MCCCo Ltd is assisting coffee farmers to market their coffee and not conducting a business. Thus, there is a need to improve the transparency on the part of the MCCCo Ltd by involving more villagers in all activities relating to the managing of their CPU. However, lack of capital on the side of the Kindimba villagers has prevented them from managing of their CPU. Probably, obtaining a loan from the CRDB would empower villagers to manage the CPU and benefits directly from it. From an examination of marketing of coffee cherries in Kindimba village, it is clear that farmers do have some incentives for selling their coffee as cherries. However, lack of transparency on the side of MCCCo Ltd, might jeopardise the future of Ngaka CPU. With increasing number of groups, farmers might be motivated to move into processing their coffee individually and sell to their groups which are transparent and which reward those who have worked hard to attain better grades more.

5.4.1.5. Management of Central Pulperies by the PCBs

These are two sister companies licensed to operate central and mini pulpers machines in various areas. The two activities of PCBs in this respect are to purchase cherry beans from farmers, conducting primary process, and sell it at the TCB coffee auction. The two private sisters PCBs manage twenty-one central and mini pulpers in Mbinga. However, there is little benefit, which can be obtained by farmers when the CPU is managed by PCBS. First, farmers sell coffee cherries that are unprocessed and the price paid is similar regardless to the quality. Although there are primary inspections at the CPU, those who have worked hard and produce better quality coffee than others might not benefit in any way. Likewise, farmers will not get the bonus even if their coffee fetched high prices at the auction. As pointed by Ponte (2002) the disadvantage of private ownership of the central pulpers is the low prices received by farmers and failure to get the bonus obtained after selling coffee at the auction. This is because the CPU purchase coffee in form of cherries and process it to parchment. Payment is done at delivery (or one week after) and farmers might get no addition payment after that. The point being emphasised here is that, even if their coffee fetches premium price at the auction, the coffee farmers will not benefit but instead will be paid flat rates, regardless of the coffee that they produce. The two sisters companies are the only PCBs that are licensed to purchase both cherries and parchment coffee. Previously, the two companies were contracted by the village governments to assist them in the management and purchasing cherries from farmers. The village governments were forced to enter into the agreement with the two companies after failing to manage the plants, especially as regards paying waged labourers, purchasing diesel, maintenance of the machines, and maintenance of the CPU.

However, as discussed in chapter four, the activities of the PCBs in managing the mini and central pulpers is not aimed at assisting farmers to increase their income and reduce poverty. The PCBs are interested in maximising profit, while assisting farmers at minimum. The complaints of the farmers' group at Msasa Mini pulpers can be cited as an example; the two companies are interested in purchasing coffee from farmers, and spend less resource in maintenance and repairs of the pulping facilities. Therefore, even if coffee fetched premium prices at the auction, PCB will keep the profit and farmers might not benefit. Probably in future, farmers will benefit more by seeking loans from Mbinga Community Bank or initiate their own SACCOS, which will assist them, run the pulpers themselves and benefits from the high quality coffee produced. The PCBs that purchase coffee cherries pay in cash even before the auctioning of coffee.

5.4.2. Improvement of Financial Management Systems

The previous section examined the roles of various stakeholders in the coffee industry in Mbinga in improving coffee productivity and quality. However, empowerment of the coffee farmers does not end up with assisting them improving the productivity and quality of their coffee. The following section, therefore, will discuss effort done by various actors of the coffee industry to improve financial management system in order to reduce poverty among the coffee farmers. Complaints by the farmers about their inability to afford agricultural inputs, decreased in coffee quality, prices and production in Mbinga forced the DALDO to initiate the district inputs fund. The fund was aimed at assisting farmers to obtain inputs and increase production. However, before giving details of the Mbinga District inputs fund, it is important to discus, briefly, the impact of reliance on the National Coffee inputs voucher scheme (NCIVS).

5.4.2.1. Nation Coffee Inputs Voucher Scheme

The reasons for initiation of NCIVS have been discussed in details in chapters three and four. In short, it was initiated after realizing that even if given money, farmers could not manage to budget their income and purchase inputs for the following production season. The farmers could not budget their meagre income for both household needs and at the same leave enough surplus to purchase inputs for the next coffee season. As explained earlier, NCIVS operates in such a way that, when coffee farmers sell their coffee Tshs. 50.0 is deduced from each kilogram of coffee sold and set aside as a contribution for the purchase of inputs for the following season. Deduction and contribution to the NCIVS is done by coffee buyers, who instead, will present a voucher that is equivalent to the amount of coffee sold by farmers.

It should be noted that, NCIVS aims at assisting farmers to obtain inputs and increase productivity. Hence, tricks played by PCBs to purchase coffee without issuing vouchers results in the inability of farmers to have access to, and use of the inputs for their coffee plots. The mechanism of the NCIVS works in such a way that the NCIVS keeps farmers' money, from which the registered stockists will deduct costs of inputs given to farmers. In theory, the scheme was a good idea of assisting farmers to obtain inputs, however, in practice, implementation of the NCIVS proved too difficult since the delivery of input vouchers was affected by the parallel markets and thus, forced Mbinga District authorities to intervene and initiate another inputs fund to which we now turn.

5.4.2.2. The District Coffee Inputs Fund

The 2000/01 coffee seasons experienced a sharp decline in coffee production in Mbinga district. Production of coffee declined from 10,464 tons in the 2000/01 seasons to 6,012 tons in the 2001/02 seasons, a situation which prompted the stakeholders of coffee in the district to act very quickly in order to rectify the situation. Apart from decreasing coffee prices both at the world market and at the auction the decline in coffee production in Mbinga, was the direct result of the inability of the farmers to use agricultural inputs. As explained above, the implementation of the NCIVS had not produced the intended results and there was a need to establish an alternative inputs distribution system and correct the weaknesses observed during the implementations of the NCIVS.

The district thought of reviving coffee trees by creating its own inputs fund to ensure that vouchers were delivered to the target group, the coffee farmers and thus, re-establish the link between coffee production and the distribution of inputs. The District fund was thought to be a local level inputs fund that will enable coffee farmers to obtain inputs, without interference from the middlemen who would like to divert inputs vouchers to the parallel market. Furthermore, it was aimed at reducing the incidence of devaluation of inputs vouchers which led to a direct exploitation of farmers. Thus given the importance of coffee in terms of revenue accrued from sale of coffee, to the Mbinga District Council and the local population in general, the District Executive Director (DED agreed to provide starter up capital of Tshs. 4,000,000/=, while farmers were expected to contribute Tshs. 500/- per person as membership fees. Furthermore, the Tshs. 50 shillings will be deducted from each kilogram of coffee. For the purpose of good book keeping, farmers were supposed to be issued with passbooks to be used for posting their coffee sales as well as collection of inputs without cheating. For example, if one posted Tshs. 50,000/= and demand inputs worth Tshs. 75,000/=, his coffee plot will be evaluated so that he is given extra inputs for Tshs. 25,000/= as a loan. Likewise, and in order to discourage the parallel market for coffee, if a farmer sold coffee worth Tshs. 100,000 of inputs and his farm demand only Tshs. 50,000/=, he will be given inputs according to his needs. The objective was that, those farmers whose farm did not produce enough should not miss inputs, a practice that would revive coffee farms. The fund was also aimed at assisting those who had sold their coffee to *magoma*, by providing them with inputs for their farms so that they do not repeat the practice next time. The fund appointed the 54 AMCOS as their agents for the collection and distribution of inputs vouchers. However, right from the beginning, the fund was not popular among other stakeholders in the coffee industry such as agricultural inputs stockists and middlemen. For instance, the Fund did not purchase inputs from the stockists in the district, due to the presumed low quality of their inputs and higher prices charged for the same. Thus, the stockist felt their business and their personal existence threatened. Moreover, AMCOS collected most of the vouchers from the middlemen who bought coffee in illegal markets and thus, were not attached to coffee farmers. This led to conflicts as to who should get inputs, the coffee farmers who sold coffee to middlemen or the middlemen? Thus, stockists united with middlemen to convince coffee farmers to boycott the fund before it started.

The aims and motives of the District Inputs Fund were very good and were targeted at improving both coffee production and the income of the farmers in Mbinga, through the availability and application of inputs. However, the target and expectations were difficult to realise. Although AMCOS were taken as the implementers at the grassroots, in most cases (in Ngaka and KIMULI), AMCOS did not know the number of coffee trees owned by the farmers in their villages. This is because, of late, there has been no census done to establish the exact number of coffee trees owned by the respective farmers. Even the farmers themselves are not sure of the number of trees in their plots due to changes caused by the wilting of coffee (interviews from 2003/04). Operation wise, the fund fell short of farmer's expectations; it was not formulated in time to allow farmers get inputs. The fund was registered in January, during which farmers expect to get inputs. Thus, the PCBs and inputs stockists capitalised on the failure to bring inputs on time to show that the fund will not benefits the farmers. On the other hand, and working from past experience of cooperative unions, the farmers were not ready to take risks for what they were not sure of. The fund became unpopular among the farmers that it was supposed to serve. Thus, lack of capital to start with, hesitation by farmers to join due to fear that they might be cheated again in the way that they were cheated by the cooperatives (MBICU and MBIFACU), were among the reasons that prevented it from taking off. Furthermore, respondents in Kindimba villages complained that the prices of the inputs charged by the fund were much higher compared to those charged by stockists in Mbinga towns.

All the factors mentioned in the preceding section led to the collapse of the District Inputs Fund in the 2002/03 coffee seasons leading to failure of all efforts to link coffee production and marketing in the district as is the case in other coffee producing areas in Tanzania (see chapter 4). However, farmers in collaboration with NGOs have initiated their own Savings and Credits Cooperatives Societies (SACCOS) as an alternative to the inputs fund. The following section discusses this new development in Mbinga district.

5.4.3. Community initiatives for rural financing: the case of the Savings and Credits Cooperative Societies (SACCOS)

Sustained income generating activities carried by the people in the rural areas require rural financial services such as savings, mobilisation of fund and provision of credit. Availability of credit enables producers of cash crops, such as coffee, to purchase agricultural inputs required for increasing productivity. Limited rural financial institution services has forced the poor people to rely on informal financial relationships, like village moneylenders *(magoma),* that usually charge very high interest rates from the borrowers.

Rural micro finance such as SACCOS has been defined as the basic financial services such as savings and credit that give people an opportunity to save, borrow, invest and protect their families against risks (IFAD, 2004). SACCOS is a democratic, member' driven, self-help, financial cooperative, owned and managed by the members themselves who share common bonds or interest, for example, villagers or church members. Therefore, membership to SACCOS must be open to all who belong to that respective group regardless of race, religion, ethnicity, and gender or job status (Temu, 2000; WOCCU, 1984).

The initiation of micro financing institutions in the rural areas aims at enabling people with limited income to have access to savings and credits. Rural people have been observed to borrow small amounts of money a practice not commended by commercial banks and other formal financial institutions which are therefore not ready to lend money to the needy farmers. It was from this background that SACCOS was introduced. As a local rural financial institution, SACCOS operates through mobilising of savings that will then be returned to members as loans. To get a loan, an individual needs to establish his/her creditworthiness through regular savings before they can gain the privilege to borrow from their SACCOS. Thus, the motive behind SACCOS is the drive to save, and then obtain a loan. Therefore, by joining SACCOS, farmers are expected to be trained in financial discipline and the importance of saving first before applying for a loan. Furthermore, SACCOS is supposed to train its members on management of their income in order to assist them to do away with unnecessary expenditures.

In Mbinga district, savings and credits evolved from the Roman Catholic Church. According to the District Cooperative Officer, savings and credits in Mbinga District started as the credits union at Maguu parish in the 1960s. It was not until the enactment of the 1991 Cooperative Societies Act that savings and credits were recognised and encouraged. The 1991 Act had led to registration of SACCOS as voluntary associations to which members contribute their savings and from which they may obtain loans. The Act provides for initiation of SACCOS both in urban and rural areas, and carry out simple operations such as deposits and issuing of loans to members who have deposited enough money to become creditworthy (Temu, 2000). The government had thus recognised and emphasised the formation of SACCOS in order to encourage savings and availability of credits among the people.

SACCOS were introduced in Mbinga by the IFAD funded programs in the 1996. Three assumptions are associated with initiation of SACCOS in Mbinga district: first, it was meant to fill the gap left by the MBICU in inputs supply that needed to be filled. Secondly, it was thought that the mushrooming of the black market for coffee *(magoma)* during the 1999-2001 seasons was motivated by the limited number of rural financial institutions willing to help villagers to obtain loans for development activities, and thirdly, the assumption that the collapse of the three-tier payment system and failure to obtain agricultural inputs on a loan basis were among the reasons which motivated the black marketing of coffee *(magoma)*. The initiation of SACCOS was thus meant, among other things, to help farmers to save money and finance inputs purchase and increase cash flows during lean months.

Two types of SACCOS have been registered in Mbinga district; those that have been initiated by workers and those initiated by farmers. Regarding the SACCOS initiated by workers, savings and contributions are deducted from their monthly salaries. On the contrary, SACCOS organised by farmers employ different ways of mobilising savings.

After explaining the historic origin and purposes of SACCOS in Mbinga, the next section examines the different ways used by farmers in the management of their SACCOS. Two cases of SACCOS are picked for discussions; Kindimba SACCOS that has been initiated through the Roman Catholic Church and KIMULI SACCOS, initiated and working closely with the primary society (KIMULI AMCOS). As we shall see, the two rural financial organisations differ, while Kindimba SACCOS assist farmers groups in order to obtain inputs for both coffee and maize production, the scope of KIMULI SACCOS is extended beyond assisting farmers to obtain inputs and include the purchase of crops as is being done by KIMULI AMCOS.

5.4.3.1. The Kindimba Parish SACCOS

The idea of forming a SACCOS in Kindimba Parish (Kindimba, Kilanga Juu and Mahenge villages) originated from the Mbinga Diocese, which thought it the best way of helping farmers in the Diocese to obtain loans and purchase much needed agricultural inputs for both coffee and food crops. The Kindimba Parish SACCOS was initiated in order to enable members (mostly Roman Catholics) to stop engaging in the black market for coffee and instead create a culture of savings and then secure loans for purchasing agricultural inputs. The importance of SACCOS was the realisation that the ability of the villagers to purchase and use agricultural inputs had decreased. Therefore, limited use of agricultural inputs among the villagers not only caused the food shortage (Nindi, 2004) but also loss of income for those who were dependent on sales of food crops, mainly, maize.

The Kindimba Parish SACCOS was initiated in October 2003, by the contributions from members. It covers Kindimba, Kilanga Juu and Mundeki villages. The three villages, covered by the Kindimba Parish, were selected deliberately because the idea of initiating SACCO originated from the Parish. At the beginning, only 13 members volunteered to join the SACCOS. However, hesitation on the part of the farmers is not surprising since farmers are always hesitant in joining what they are not sure of. This is based on their experience with cooperative unions which have collapsed without paying their benefits from coffee sale.

SACCOS depends on two major sources of capital; membership fees, (which was Tshs. 2,000 for each member), and shares that are estimated at Tshs. 50,000 for each member (to be contributed within a the span of 5 years i.e. Tshs 10,000/= for each year). Membership is on individual basis. Thus in one household, both husband and wife can take up membership separately. Thus, allowing membership for both family members increase the chances for a family to work hard to save and obtain loans. By April 2004, there were 173 members of SACCO that were drawn from Kindimba, Mundeki and Kilanga Juu villages.

The loans from SACCOS are meant to enable members purchase agricultural inputs, mostly fertilisers and agro-chemicals for their coffee and maize farms. The target was set after the realisation that farmers could not benefit much from the National Inputs Vouchers Scheme, because the vouchers were not sufficient to purchase enough inputs for the whole season. Thus, the loans were aimed at assisting farmers use them productively instead of using the money in unproductive activities. Sensitising farmers on how to use loans for productive activities falls within the motive of the SACCOS i.e. to create ability of the members to take loans use the money for productive activities and then allow other members to benefits from the loans.

At the grassroots level, members are organised into groups of five persons, who know each other well. These groups had two main objectives; first to make daily contributions of Tshs 100 per day (Tshs 500 per week), which is collected by one appointed member. In this system, each member must contribute Tshs. 100 a day for five days, which makes a total of Tshs 500 a week per member (Figure 5.4).

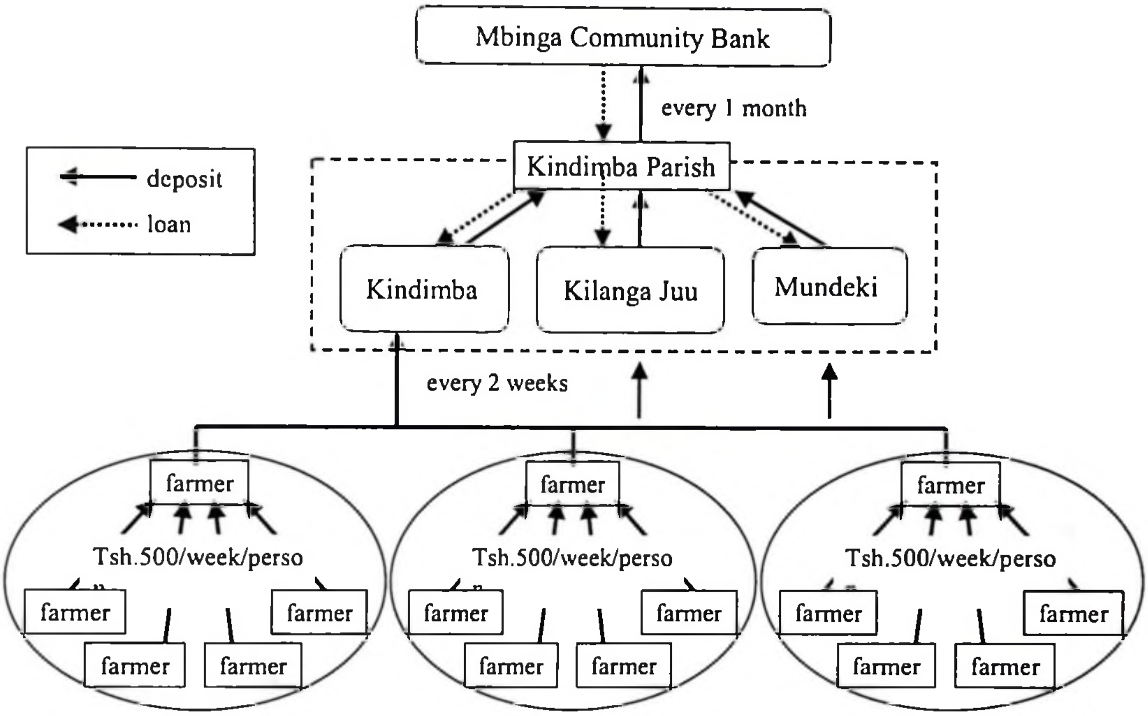


Figure 5.4. Operation Model of a SACCOS at Kindimba Parish

Contributions from all members (a total of Tshs. 5,000) are then submitted to the Kindimba Parish after every two weeks. The weekly contributions are deposited at Mbinga Community Bank as collateral against risks of loans. Secondly, the groups act as guarantors of the other members who will take loans. Likewise, the initial decision as to who should obtain a loan starts at the group level. It is based on the assessment from the other four members, who assess if the applicant is credit-worthy and committed to use the loan into productive activities. Likewise, if one member fails to pay back the loan, it is responsibility of the other four members to pay it back on his behalf. It is through this way that the Kindimba SACCOS has been initiated from the resources available at the grassroots, and operates through social networks that exist at the local level. Therefore, the organisation at the grassroots level is the self-reflection, or the mirror into which five members will assess themselves and send the recommendations to village committee.

The organisation of SACCOS in Kindimba supports the observation that small holders farmers and rural dwellers have the capacity to make financial savings, although their savings are in small amounts which is far below the limits of most of financial institutions Temu (2000). With privatisation of the commercial Banks in Tanzania, most are unable to support the mobilisation of finances in the rural areas. Thus, SACCOS, as rural financial institutions at the micro level, helps farmers to put into productive uses the resources, which were ignored and deemed insufficient by formal banking institutions. Thus, the initiation of SACCOS should facilitate the poverty reduction initiative in the rural areas.

Mbinga Community Bank (MCB) has assisted Kindimba SACCOS through training of its members on how to initiate, deposit, post records and management of financial institutions at the micro level. Moreover, MCB provided training on procedures for registration of a SACCOS. Before issuing loans to members, MCB demanded that members should start to save Tshs. 500 per week that will be used by the MCB as collateral against the loans. Moreover, the bank demanded that each member who inspires to take a loan should contribute Tshs. 10,000 as interest rates, before receiving a loan. This means that, the rate of interest is supposed to be paid before receiving the loans. Having fulfilled the requirements, MCB offered Tshs 3.9 million that was distributed to 88 members who were allowed to borrow Tshs. 50,000 each. Thus, from March 2004, 87 members obtained loans of Tshs 50,000 each from the MCB, in expectations that they would be able to pay back their loans in August 2004 after selling their coffee. Reports from Kindimba Parish indicated that all members managed to pay their loans well in advance even before the deadline of 31 August 2004. However, the interest rate of Tshs. 10,000 (20 percent) was high, although much better than that demanded by illegal moneylenders, *magoma*. Farmers interviewed in Kindimba have complained that the interest rates charged by the bank were too high for most of the poor households to afford. Calculations indicate that farmers borrowed Tshs. 50,000 but paid Tshs 60,000. The complaints of the farmers against higher rate of interest charged by the bank were answered by an official of MCB, who claimed that the MCB charges high interest rate because of lack of security of loans in Tanzania. Lack of security for the loans and higher interest rates are among the factors that limited availability of credit facilities in the rural areas. The General Manager of Kilimanjaro Cooperative Bank made the same remarks; the banks are forced to charge the interest rate of 25 percent due to lack of security for loan given to AMCOS.

However, it is expected that in future, farmer's contributions to their own SACCOS will accumulate and enable them to borrow from within and reduce dependency from the commercial banks. Farmer C (42) of Kindimba village was among the villagers who benefited from the Tshs 50,000 loan for purchasing inputs and managed to pay it back on time. This is how he recounted his experience;

> When we joined SACCOS, we were encouraged to make a group of five members. We paid Tshs. 2,000 shillings each as a contribution and entrance fee and then we were supposed to contribute a share of Tshs. 50,000 to be paid in 5-years time, Tshs. 10,000 each year. One of the pre-conditions for obtaining the Tshs. 50,000 loan was the availability of assets which can to be auctioned in the event that a member has failed to pay the loan. The assets were livestock such as pigs, goats, and coffee farms. The loan was aimed at assisting farmers to purchase agricultural inputs, mostly fertilisers for maize and coffee farms. In January 2004, I obtained a loan of Tshs. 50,000/-which was to be paid in August 31, 2004. I purchased

three bags of fertilisers and applied it in my coffee and maize farms. Although three bags of fertilises were not enough for all my requirements, it was better than not using any at all. In June 2004, I started selling sugar cane cultivated in one of my plots in the valley bottom. The customers were the villagers and part was sold in *chioda* dances. Fortunately, by the end of June 2004, using money from different sources, I managed to pay back the entire loan. From the reports obtained from SACCOS meetings held every Saturday, almost all the villagers who took loans have managed to pay back their loans on time and are waiting to get another loan.

Successful operation of any SACCOS depends on prompt payment of debts from those who have obtained loans so that other members can have equal chances to get the some loans. Failure to pay on time means other members will not benefit from the SACCOS arrangements. Furthermore, future successes of the SACCOS depend on the performance on the initial years and the benefits that members will accrue. It should be remembered that those are the same farmers who had suffered from the collapse of cooperative unions, MBICU and later on MBIFACU which failed to pay their members. Thus, some of the villagers are waiting to see if it will deliver or if it will fail like the cooperative unions before it. Although SACCOS has operated for only a short time, there are signs of success, especially if one takes into consideration the fact that farmers are not customarily motivated to save in order to obtain loans. Probably, this is the first most important achievement given that the Matengo people are not used to the culture of savings. Thus, cultivating the culture of saving will not only benefit the organisations, but also assist them to budget their income and use the same in income generating activities thereby reducing their poverty.

Another achievement of the SACCOS has been obtaining loans for purchasing agricultural inputs; the idea behind the Tshs. 50,000 loan was to assist farmers to purchase three bags of fertilisers for both maize and coffee farms. However, when we look at the number of the coffee trees owned by each of the respondents, it is obvious that three bags of fertiliser, is insufficient for their need. In future, probably, there is a need of increasing the amount offered as loan for purchasing inputs. Therefore, by initiating SACCOS from their own resources, villagers have shown their commitment to develop their micro level financial institution, which gives it a chance for sustainability. Likewise, it also shows the commitment of the members to save and obtain loans that will be invested into various economic activities and thus, fight poverty among themselves. This is different from the situation where SACCOS is initiated from external source of finance; members would not value it as their own organisation. Thus, through their own savings, members will work hard to use the available loans for productive activities. The vision of SACCOS in Kindimba is to expand its activities and initiate a community bank in order to attract more savings from the villagers. Moreover, Kindimba SACCOS targets into financing the village based AMCOS to purchase coffee from farmers and reduce the dependence on the commercial banks. If their vision will be realised, probably SACCOS might link the coffee economy with the other sectors of the economy, as demonstrated by the case of KIMULI SACCOS.

5.4.3.2. KIMULI SACCOS

The KIMULI SACCOS was initiated in 1996, by the KIMULI AMCOS for the purpose of mobilising micro-finances that can be used by both the AMCOS and its members. The SACCOS has been registered to operate in the same areas that AMCOS operates. Unlike Kindimba Parish whose capital demands on both member's contribution and commercial banks, the source of capital was cumulative. Currently, the KIMULI SACCO has a capital of Tshs. 8,000,000, which has been accumulated over a four-year period. The SACCOS has direct link with a primary society which deals with coffee marketing, the KIMULI AMCOS. Thus, there is a symbiotic relationship between the two sister organisations which work and collaborate in most of their activities. For example, in the 2004/05 coffee seasons, KIMULI AMCOS borrowed Tshs. 8,000,000 from KIMULI SACCOS, which enabled it compete on equal footing with PCBs and purchase coffee on cash. Thus, the loans from SACCOS have enabled KIMULI AMCOS to purchase coffee on cash and become a potential competitor to the PCBs. On the other hand, the possibility of purchasing on cash to some extent rescues farmers from tricks employed by PCBs, who purchase coffee from farmers without issuing inputs vouchers. This linkage between SACCOS and AMCOS is a special case in Mbinga, since other AMCOS depend on the loans from the banks for initial payment. This link benefits the two organisations; income from coffee increases accumulation of capital for SACCOS, while inputs loans provided by the SACCOS are re-invested back into the coffee economy. Farmer D of Kitanda village has benefited from the loans offered by the SACCOS. The following accounts narrate his experiences.

> I joined SACCOS in 2002 and paid a membership fee of Tshs. 2,000. A minimum share to the SACCOS is Tshs. 20,000 which, once paid, qualifies a member to borrow twice that amount. There is no limit to the amount of shares, since the amount of shares will determine the creditworthiness of the members. There is no limit to the number of shares a member can have. However, the rate of interest is 25 percent, which is higher, and thus farmers will only take loans when they are sure to cover the loan with interest and still make a profit from it. In 2003 my shares reached 80,000/-, which allowed me to take a loan of 180,000 with which I purchased roofing sheets for my house. I managed to pay my loan after selling coffee and beans, and borrowed another Tshs. 80,000 that I used to purchase a cow. I am confident that the milk from the cow will enable me to pay the loan. Moreover, manure from my cow will be used in my coffee farm and thus increase both production and income.

In comparison, both SACCOS in Kindimba Parish and KIMULI offer loans to coffee farmers aimed at assisting their members to purchase agricultural inputs for coffee as well as food crop production. However, the initiation of the two SACCOS differs. Kindimba SACCOS was initiated through the Roman Catholic Church and thus, works for the church followers and has indirect impact on the coffee economy. KIMULI SACCOS, on the other hand was created as a sister organisation to the KIMULI AMCOS, to accumulate capital that will be used to purchase coffee and thus, reduce dependency on the banks. To some extent, this has paid off since, in the last two crops seasons, KIMULI AMCOS has managed to purchase coffee on cash from the SACCOS loans. Ability to purchase on cash has discouraged PCBs who cheat the farmers by purchasing coffee on cash but do not offer inputs vouchers. On the other hand, KIMULI AMCOS has operated for a longer time than that of Kindimba Parish and, has thus managed to accumulate capital. The success of KIMULI SACCOS is an example for other AMCOS in Mbinga to emulate in order to tap resources from the villagers and turn it into capital for AMCOS and the villagers themselves. Initiation of SACCOS will increase ability of the AMCOS to compete with equal footing with PCBs. In the long run, SACCOS in Mbinga could adapt the example from Kilimanjaro (KCB-SACCOS Model) where by KNCU and AMCOS have united to form the Kilimanjaro Cooperative Bank which assists AMCOS to obtain loans for crop purchases (Temu, 2000).

From the two cases presented above, we see that AMCOS have faced several problems that have hindered its operation. Firstly, is the low income of members due to decline in coffee prices. Consequently, the ability of the members to save and contribute to SACCOS has declined. Despite the decline in coffee income, members are engaging in various other income generating activities. Therefore, for the success of the SACCOs, members would need to use income from various sources (selling of pigs, food crops, vegetables, and even livestock). Secondly, is the low level of knowledge on savings and credits and motivation to join SACCOS. This has been attributed to the past experiences where cooperative unions collected coffee from farmers and failed to pay them. Consequently, most of the farmers, who have lost their money, are not ready to take the risks again and join the organisation whose success rate has yet to be proven. Thus, they will wait to see how it performs in the initial years before deciding to join.

The initiation of SACCOS in rural areas, therefore, is very crucial for encouraging villagers to save and thus empowering them economically. Since the members themselves initiate SACCOS, there is a sense of ownership among members who are likely to follow the procedures for their betterment. Moreover, SACCOS emphasise on savings mobilisation and lending at local level, if well utilised and people sensitised to join, it might be a promising mechanism for delivery of much needed financial services to the coffee farmers and hence, increase financial management and cash availability through major part of the year. Therefore, without building the culture of savings among the farmers, SACCOS cannot grow and assist farmers as alternative rural financial institutions. If loans are directed to productive activities, income-generating activities will create surplus and in that way, farmers will be capable of paying their loans and then wait for the next turn as attested by the experience from SACCOS in Kindimba village. Encouraging members to save towards loans helps to raise local capital from within the community and thus reduce the dependence from outside sources of finance. Likewise, SACCOS appear to be the most important institutions through which poverty can be addressed in Tanzania, partly because they operate at the grassroots level where most of Tanzanians live.

Despite the positive aspects of SACCOS, it should however, be noted that farmers' income is seasonal and thus loans must be made available at the right time so as to allow farmers to use the loans in time and appropriate manner. For example, loans from SACCOS should be given at the right time when farmers need agricultural inputs (January to April) and should be refunded after harvesting (July to September). As observed by Ponte, (2002) all SACCOS members need inputs loans at the same time, which may make it difficult to revolve funds and allow other farmers to have access to loans at the right time. Lastly, farmers have little bargaining power during the months of December to May, when there is limited of cash income. Therefore, farmers can easily sell their valuable assets, such as animals and even unripe coffee for lower prices in order to solve their problems. Initiation of SACCOS appears to be an alternative ways of assisting such farmers to increase their bargaining power and avoid such exploitation.

5.4.4. Contributions of AMCOS

The dominance of PCBs in coffee marketing in Mbinga turned the AMCOS into their agents. With limited capital, AMCOS ended up collecting coffee from farmers on behalf of the PCB and paid only a small commission. Thus, the traditional functions of AMCOS of offering services to coffee farmers were almost non-existence. However, from 2002/03 coffee seasons, AMCOS have been empowered to collect coffee from the farmers and sell it to the auction, and thus, perform activities that were once done by cooperative unions. In what follows we discuss three steps taken mostly by AMCOS to improve financial management among the farmers, including payment in instalments, selling coffee direct to the auction and the loaning system.

First, as explained earlier, one of the features of the AMCOS in Mbinga is paying coffee farmers in instalments; which is divided into initial, interim and final payments. Payment in instalments seems to be useful and preferred by most of the farmers, who have demonstrated how they are utilising it. For example, second payment is added with inputs vouchers and is used to purchase inputs such as agrochemicals and fertilisers. Despite the benefits, some farmers have complained against payment in instalments on the ground that the amount paid is too small and insignificant for investment in productive activities such as purchasing second hand cars and milling machines. However, although it is true that the amount paid is small, but it enables farmers to have cash income in most parts of the year and thus, reduce the temptation of seeking money from moneylenders. Furthermore, it can be utilised for purchasing livestock or joining into SACCOS schemes.

Second, prior to the 2001 coffee Act, AMCOS were the agents of the cooperative unions and thus, they were obliged to collect coffee and sold via the unions. By selling coffee via the cooperative unions, Tshs. 50 was deducted from each kilogram of coffee as union's levy. Moreover, AMCOS also deducted almost the same amount of money as the society levy and at the end, almost Tshs. 100 was deduced from each kilogram as a levy. By selling coffee direct to the auction, farmers do not pay union's levy and which end up increasing their income. Thus, the 2001 coffee Industry Act has reduced the role of unions that previous acted as middleman and at the same time, benefiting farmers by increase the income from each kilogram. Likewise, the Act has shown that farmers are capable of performing most of the coffee related activities (production, inputs distribution and marketing) without having a union. Thus, farmers are wondering if they need to establish a bureaucratic organisation with high operation costs that will be paid by farmers through deduction from each kilogram sold via the union. Probably, farmers in Mbinga do not need to form a district based union, since it will offers the same services which are performed by AMCOS at present.

Third, availability of capital is very important for initiation of any income generating activity, be in the rural or urban areas. KIMULI AMCOS has realised that farmers need capital for initiation of various income generating activities to support both coffee production as well as their livelihoods. To meet the challenge, KIMULI AMCOS has established a loaning system to some of the farmers who sell their coffee through them. The loans are aimed at assisting farmers to solve problems facing them during the lean months, when there is limited cash income. KIMULI AMCOS experiences can and should be copied by other AMCOS. Loans issued during the lean months are assisting farmers from selling coffee to the black market. Instead, farmers are benefiting by marketing coffee in the establish channels and obtaining inputs vouchers for the coming season. At the same time, the same farmers will pay back the loans and sell coffee via KIMULI AMCOS, which will benefits from deduction of society levy from each kilogram. Provision of loans, therefore is beneficial to both coffee farmers and KIMULI AMCOS.

5.4.5. Commercial Banks

Commercial banks have an important role to play in development of the rural areas, especially the provisions of loans for productive activities. Most of the income of the rural dwellers is too small, while most of them do not have collateral for loans. However, despite those shortcomings, several efforts are done to promote availability of capital in the rural areas. The following section presents the role and activities of the two commercial banks in facilitation of loans to farmers; MCB, which provides loans to members of SACCO for purchasing inputs and improving productivity, and CRDB, which provides loans to AMCOS for purchasing coffee from farmers.

5.4.5.1. Mbinga Community Bank

Mbinga Community Bank (MCB) was initiated in order to tap the available resources in the district and put them into productive uses. Likewise, the MCB was formed after the realisation of two important factors, increasing poverty among the people because of decreasing income from coffee, and the district potentials that had remained unutilised. Thus, it was thought that utilisation of the district potentials for production activities would assists in the ongoing efforts of fighting poverty among the people of Mbinga district.

The activities of the bank started on July 30, 2003, with capital drawn from among others, MCCCo Ltd., Office of District Executive Director, Pilikano AMCOS and SACCOS (interviews with MCB credit manager on 10 November 2004). Operationally, MCB does not work with individual farmers, but prefers to work with groups of farmers who will take responsibility of the loans given to them. In addition, the MCB, like any other profit-oriented organisation, assumes that it is cost effective to reach and work with a group of farmers than reaching an individual. Probably, even more important for the operation of a commercial bank, it is expensive to travel from Mbinga town to the villages just to reach only one farmer. Thus, working with farmers' groups has proven more effective in dissemination of information to other farmers. Likewise, MCB assumes that even the non-members who live in the same areas might benefits from the training and experience of their fellow farmers. The bank taps the potentials of the grassroots level by sending services to the village, through initiating community banks that act as links between the villagers and the MCB. The village-based community bank is made up of a group, with elected chairperson and secretary, responsible for managing the accounts of the group. Members are advised to organise themselves in groups in order to monitor the activities of each member and assist each other in payment of loans. Membership fee is Tshs. 1,000/=, while members are required to contribute Tshs. 500/= per week before applying for loan. The contribution has two objectives; reducing risks of the loan, and cultivating the culture of saving before obtaining a loan. Before receiving the loan, the group must be trained on group management skills, group leadership, and management of finance, initiation and management of the micro level income generating activities. However, in village-based groups, only small amounts of money can be issued as loan, while request for inputs loans must be submitted to MCB headquarters. In this regard, the MCB in collaboration with village-based community banks, provide services that would have been provided by the MCB in town and therefore, the expense and burden of travel to Mbinga town for services that could bc provided in the villages is removed.

The initiation of the MCB in Mbinga is a step towards the right direction. The Bank is taping hitherto idle resources, which are now invested into productive activities and therefore, increasing income and reducing poverty among the people. Although still in its infancy, MCB has managed to cultivate the culture of savings before issuing inputs loans to coffee farmers in Kindimba, Maguu and Mateka villages. This is through an understanding that in order to get a loan, people must first learn how to save and later put loans into productive activities. Moreover, the daily contributions from group members, targeted into reducing the risk of loans from MCB, will force farmers to use the loans for productive activities (since they have saved the money through difficult means to qualify for it) and to further avoid using the loans in unproductive activities like traditional dances or other ceremonies. However, both the interest rates of 2 percent per month and weekly contribution of Tshs. 500/= might be too high and thus, discourage some farmers without sustainable incomes to seek loans. The household data presented in the next chapter shows that some farmers are hesitating to join SACCOS for fear that they can not afford to pay the weekly contribution as well as interest rates. Despite those observations, however, it is evident that MCB and SACCOS will play a prominent role in fighting poverty among the farmers in Mbinga.

5.4.5.2. CRDB (1996) Ltd

The economic liberalisation in Tanzania did not spare the banking industry. Following liberalisation, the government enacted the Baking and Financial Institutions Act (BFIA) of 1991, which diverted the interests of the government from the banking sector and thus opened it to the private investors. As noted by Cooksey (2004) the post 1985 economic reforms in Tanzania resulted to the denationalization of the commercial banks, among them CRDB. The CRDB Limited is a private commercial bank that was established on July 1, 1996. The CRDB succeeded the former Cooperative and Rural Development Bank (CRDB), established in 1964 for the purpose of providing loans for crop finance to cooperative unions (Kimario, 1999). Prior to liberalisation, CRDB was a public institution, with the Government of Tanzania as the major shareholder. Currently, the bank has more than 11, 000 shareholders, whose value of shares are divided as follows: private individuals, 37 percent; cooperative unions in the country, 14 percent; companies, 10 percent; DANIDA Investment Fund, 30 percent; and Parastatals (NIC and PPF), 8.8 percent. (http://www.crdb.com/whoweare.htm: 21/12/2004).

As regards the ownership of the CRDB, it is noted that the government retained shares which were owned by the cooperatives unions in the country. Probably, the shares of the cooperative unions have been retained so that CRDB could still assist the development of the cooperative sector. With 14 percent of the shares, cooperative unions in the country are the third largest shareholders of the CRDB and this makes it incumbent upon the bank to issue loans for crop purchase to the cooperatives. The effects of the privatisation of the commercial banks were noted from 1991 when they started to operate along commercial lines. However, CRDB has continued to issue loans to the cooperatives unions for crop purchase, though the conditions of issuing the loans have changed so as to ensure that cooperatives pay back the loans. Before liberalisation of the economy, CRDB could issue loans to cooperatives even without assurance, which resulted in the mismanagement of funds and their use in unintended activities. In the end, cooperatives could not pay back the loans (Maghimbi, 2002; Ponte, 2002). As a result the privatised CRDB was forced to change its regulations on issuing loans to cooperatives. To countercheck the above weaknesses and ensure that cooperatives pay their loans on time, CRDB introduced the coffee receipt system that binds cooperative unions and primary societies to deliver coffee to the curing factory before issuing loans (see chapter four). The coffee receipt system has become effective in controlling losses and embezzlement that were common in most of the cooperative unions. More often that not, it was farmers who suffered when the cooperatives failed to pay their loans to commercial banks; and in the process farmers failed to get their money and inputs on time. MBICU's failure to pay farmers more than Tshs. 300 millions in 1995/96 as a result of embezzlement of farmer's money is an example (DALDO, 2002). From the 2002/03 coffee seasons, the CRDB has been issuing loans to coffee farmers in Mbinga, through their AMCOS for crop purchase. The source of finance is the Common Fund for Commodity (CFC), which funds coffee and cotton. CFC provided 6 billions to the CRDB which in turn provided loans to AMCOS for the purchase of coffee. Thus, in this aspect, the role of the CRDB is to facilitate loans to AMCOS for crop purchases, which has enabled farmers to empower their own organisation and compete with PCBs.

However, although loans from CRDB have empowered AMCOS to collect and sell coffee directly at the auction, the interest rates of 25 percent charged by the CRDB is eroding farmers' income. As such, taking loans from the CRDB should be a short-term objective, while farmers are accumulating capital through their AMCOS and SACCOS to be able to finance crop purchase. Too much dependence on loans from the CRDB means that, AMCOS will not be able to stand on their own and will collapse when loans are not issued. On this matter, it is imperative that others learn from the experiences of KIMULI AMCOS which collaborates with SACCOS.

5.5. CONCLUSION

Chapter five explored the current situation of the coffee industry in Mbinga. It is divided into four. Section one explained the reasons for declining coffee productivity; as being increasing prices of agricultural inputs that have resulted in increased costs of production. In addition, it explained how over production of coffee in the world has resulted to slumping of prices. The example of the production trend of coffee in Vietnam was used to explain this situation. Section two identified and examined problems of coffee production in Mbinga. It cited examples from Kitanda and Kindimba villages to show the deficiency of agricultural inputs among the farmers and how it accelerated the outbreak of diseases. Besides, the section also pointed out that low income among the farmers is an outcome of production of low quality coffee that fetched low prices. In addition, other causes of low income included seasonal fluctuation of prices, poor financial management among the farmers and influence of world market. Low income among farmers was identified as a major constraint for farmers to managing income in major parts of the year and the purchase of inputs. Section three examined the new businesses that have emerged in the villages. Lack of credits facilities among farmers and poor financial management caused by collapse of MBICU have been identified as major reasons for emergence of coffee related business. In addition, it identified types of middlemen including guides, sub agents and agents. Their role of purchasing coffee from farmers at cheaper prices and selling it to PCB at higher prices was critically evaluated. Section three pointed out how the involvement of the middlemen has minimised the direct contact between producers and buyers. As such, farmers are denied the opportunity to obtain inputs purchase vouchers to assist them in purchasing inputs for the following season. It was also found out that farmers are at the receiving end in this new coffee marketing chain.

Section four examined the strategies of different actors to improve the quality of coffee in order to increase prices as well as income to farmers. It was pointed out that the current marketing systems favours farmers who produce high quality coffee. Such farmers have higher chances of fetching higher prices for their good quality coffee as opposed to ordinary coffee .The section draw example from farmers' groups which produce high quality coffee and showed their advantage of obtaining higher prices as opposed to others. Other organisations that claimed to assist farmers to produce and market good quality coffee were observed to cheat the farmers. It was concluded that there is need of improving transparency between farmers and organisation that support them. Section four also explains actions taken by both farmers and other actors to improve financial management systems. It has cited the initiation of rural financial institutions, SACCOS initiated in two villages, as a positive step aimed at assisting farmers to cultivate a culture of saving. Likewise, SACCOS will motivate farmers to save and obtain credits for investment in both coffee and other activities. Understandings of the current situation of the coffee industry in Mbinga helped to identify the challenges and opportunities available to coffee farmers.

The next chapter identifies and discuss various strategies employed by coffee farmers to continue with coffee cultivation under the current situation of slumping coffee prices and increasing costs of production.

CHAPTER SIX: IMPACTS OF LIBERALISATION OF COFFEE MARKETING TO LIVELIHOOD AND FARMING SYSTEM OF THE MATENGO COFFEE FARMERS

6.1. INTRODUCTION

This chapter presents the strategies employed by the Matengo coffee farmers to sustain coffee cultivation and their livelihoods in spite of the increasing costs of production and declining revenue from coffee. The chapter is divided into two main sections the first section explores the responses from farmers following the economic liberalisation, and the second deals with the introduction of the single licence system.

6.2. FARMERS' COPING STRATEGIES AFTER ECONOMIC LIBERALISATION

6.2.1. Increase in number of coffee trees

Despite the prolonged recessions in coffee prices both in Tanzania and in the world markets, 25 percent of the respondents in Kitanda and Kindimba villages have maintained the scales of coffee cultivation, while 50 percent have increased the number of their coffee plants that they had before economic liberalisation (Table 6-1.). Most of the coffee growers who increased coffee plants by anticipating the price increase (Table 6-2.), while a decrease in fertility of the soils forced some of them to shift their maize fields to coffee farms. Respondents argued that coffee plants at the early stages could be fertilised by organic matters as compared to maize which must be fertilised by fertilisers (Table 6-3). On the other hand, 25 percent of respondents have decreased their number of coffee plants. Some of the reasons mentioned for the decrease include accidental death of the plants due to diseases and insects. Very few farmers have decreased their coffee trees intentionally. Therefore, farmers could not replant the trees because of lack of cash income to purchase agricultural inputs as well as sickness of some of the family members.

Table 6-1 Change in number of coffee trees after collapse of MBICU (n=62)

	Respondent	Coffee grower[s)]	Increase	Decrease	Maintained
No. of household	62	60	30	15	15
%[1)]	-	100	50	25	25-

[1)] Percentage in coffee growers

As mentioned in Chapter three, the slumping of coffee economy in Tanzania has been caused by fluctuations of the coffee prices in the world market. Reasons given for fluctuations of prices in the world market are over-production caused by improvements of coffee processing and cultivating technologies (Baffes, 2003). Researches conducted in other Mild Arabica coffee production areas of Tanzania such as , Arusha Region, Kilimanjaro Region and Rungwe District in Mbeya Region have indicated that farmers have reduced coffee cultivation because of fluctuating prices of coffee, high prices of agricultural inputs and lack of credit for the same (Mwakalobo, 1998; Larson, 1999; Ellis, 2000). Therefore, the current expansion of coffee cultivation in Mbinga is peculiar in spite of similar economic and production conditions.

Table 6-2 Reasons for changes in the number of coffee trees (n=45)

Reasons for change	No. of Growers
Reasons for Increase	(n=30)
Anticipation of prices increase	23
Infertile land for maize	8
Death of coffee trees	5
Others	2
Reasons for Decrease	(n=15)
Death of trees due to lack of inputs	13
Lost land	1
Sold to other villager	1
Burned by bush fire	1
Abandoned due to low coffee returns	1

Respondents gave multiple responses

Table 6.3 Previous land used for expanded coffee garden (n=38)

Previous land	No. of fields
Food crops	16
Fallow	7
Coffee fields	6
No answer	8

One of the major reasons for farmers in Mbinga to expand coffee cultivation despite the decrease in economic return is that coffee is still a relatively valuable crop under the prevailing economic situation in the rural areas of Tanzania. Likewise, in remote areas, such as Mbinga, where there are limited opportunities of transportation of various crops and alternative income generating activities, farmers are forced to depend on the existing income generation activities such as coffee cultivation. On the other hand, Kilimanjaro Region which has higher level of education strong socio-economic and political influences in the country, coffee farmers have more chance of obtaining economic support from the country's predominantly urban bureaucrats. Moreover, location wise, Kilimanjaro is connected by well-established infrastructure such as all weather major roads to towns and cities such as Moshi, Arusha and Dar es Salaam. Therefore, after the collapse of coffee prices, farmers in Kilimanjaro Region which was a major coffee production area, shifted easily from coffee production and intensified their engagement in other income generating activities such as the cultivation of banana and sunflower, keeping dairy cattle and growing horticultural crops such as flowers for direct export to European markets (Ellis, 2000).

The economy of the Matengo people is based on cultivation system that combines indigenous agriculture *(ngolo)* and coffee. Historically, if coffee would not have been introduced in Mbinga, which is located in the peripheral area of the South-end of Tanzania, and later on developed as one of the major coffee producing areas, there is a possibility that opportunities of transportation might have been extremely limited. However, the Matengo have an economic advantage by developing intensive farming system centred on coffee cultivation. Therefore, it is likely that the responses of the Matengo to recession of coffee economy would be different from those in Kilimanjaro which has various sources of generating cash income.

Another reason for the Matengo coffee farmers to increase the number of coffee trees despite all the odds related to ownership of a coffee farm. A Matengo farmers with a coffee farm can use it as collateral for obtaining a loan from others. To qualify for a loan, the moneylenders inspect the borrower's coffee farms to asses his credit worthiness. Therefore, ownership of a coffee farm is one of measures which have been used by the Matengo who do not have the custom of saving money to obtain cash during emergency. Ownership of a coffee farm is also regarded as a symbol of manhood in the Matengo society. In general, when a son gets married or becomes an adult, he is expected to inherit a coffee farm from his father. Thus, if a father does not have enough coffee farms to divide among his sons, he will be obliged to open new farms, mostly in the lowlands areas.

6.2.2. Change in the farming system

Population pressure in the mountain areas of Mbinga has resulted in limited fallow land, and has necessitated the division of farming fields into small hamlets (Nindi, 2004). Thus, shortage of land for cultivation in mountain areas has necessitated the utilisation of chemical fertilizers in order to sustain production of sufficient food crops. Thus, farmers in the mountain areas cannot produce enough food to support their families without using fertilisers. Before economic liberalisation, the Matengo farmers used revenue accrued from coffee to purchase chemical fertilisers that were used in maize fields (Kato, 2001). However, following the economic liberalisation which forced the government to remove subsidies on agricultural inputs, and at the same time, slumping of coffee prices, farmers could hardly afford to purchase and use chemical fertilizers in production of food crops. Therefore, farmers were forced to adopt strategies that would enable them to sustain production of both coffee and food productions in a difficult scenario.

During the rainy season of 1997-1998 and the subsequent El-Niño, crop production in Tanzania was negatively affected. Mbinga District also was not an exception, and therefore the local government enacted bylaw to encourage the cultivation of cassava. Cultivation of cassava was encouraged because it can be produced without using chemical fertilizers. It should be noted that maize is the staple food of the Matengo. However, under severe food shortage, the Matengo, who were not used to cultivate and eat cassava, had limited choice except to start cassava cultivation. Maize and cassava are ground by milling machines to obtain flour and then consumed as stiff porridge or *ugali*. Figure 6-1 indicates the seasonal changes in amounts of maize and cassava brought to the hydro-mill machine for 10 days in 2003-2004. The machine was built jointly in Kindimba village by the Centre for Sustainable Rural Development of Sokoine University of Agriculture (SCSRD/SUA), Japan International Cooperation Agency (JICA), Kindimba village, Mbinga District Council and NGO. The hydro-mill machine is utilised by many villagers in Kindimba and the neighbouring villages because its operational costs is lower and thus, charges cheaper than diesel operated milling machines. According to figure 6-1, a large amount of maize is consumed throughout the year, but consumption rate reaches at the peak during the harvestings season (July-August). Thus, from September onwards, there is decline in maize consumption, and utilisation of cassava increases in order to compensate for the shortage of maize. Recently, cassava crop has played an important role in the livelihoods of the Matengo. Cassava is a source of calorie that ensures food security, particularly in March when the Matengo are engaged in cultivating in the *ngolo* fields.

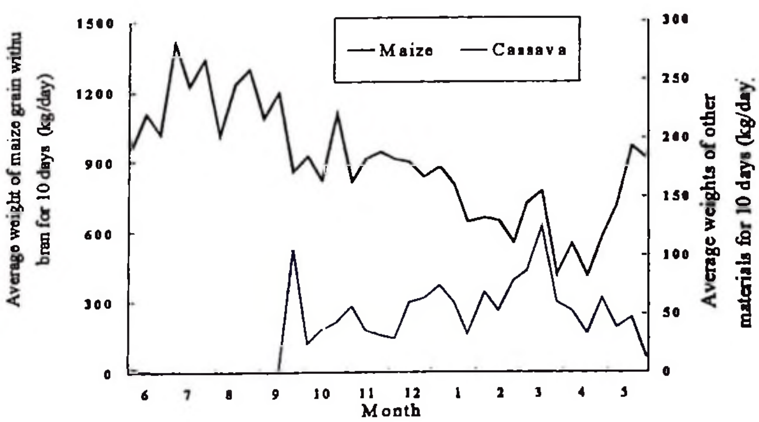


Figure 6-1 Seasonal changes in amounts of foodstuffs brought to the hydro-mill machine in Kindimba village (Mountainous Ares) in 2003-2004 (unpublished)

Responses of the Matengo farmers to the introduction of cassava cultivation differ from one area to another. While in Kitanda village located in rolling hills with abundant land, cassava can be cultivated in open spaces and newly found land, in Kindimba village, which is located in mountain areas, with shortage of land, farmers are obliged to shift from cultivating maize in *ngolo* fields to cassava. Figure 6-2 shows the expansion of farms outside sub-village or village. The farmers in Kindimba village, who have shifted from maize farm within the village to cultivation of coffee and cassava, have sustained maize cultivation by opening new farms outside village. As mentioned in Chapter two, the Matengo have a land use system and a socio-economic unit called *ntambo* which has supported most of their farming activities. Nindi (2004) pointed out that after economic liberalisation, expansion of distant farms is the most significant change related to land use system in the mountain areas. Furthermore, increase in cassava cultivation has influenced other livelihood activities as will be explained later. Therefore, the farming system examined within *ntambo* is changing to sustain their demand for food.

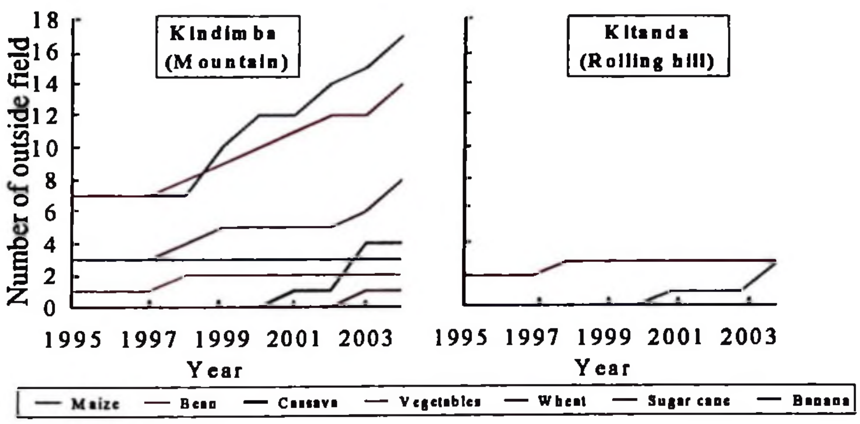


Figure 6-2 Ownership and utilisation of land outside sub-village after collapse of MBICU

6.2.3. Reduction in utilisation of agricultural inputs

Mild Arabica coffee is very vulnerable to pests, diseases and soil infertility and therefore, it is difficult to produce coffee without using agro-chemicals. In particular, the application of pesticides is inevitable for coffee production in Mbinga. For example, if coffee plants are attacked by Antestia (*Antespiopsis* sp.) and Coffee Berry Borer (*Hypothenemus* sp.) during the stages of flower bud formation and fruit setting, there is s big chance that the yields will be are affected. Therefore, to maintain coffee plantsand sustain production, farmers must apply the pesticides prior to fungicides even if income from coffee is decreasing. Figure 6.3 indicates the annual calendar in the coffee and *ngolo* cultivation, and the relationship between them. According to recommendations from Tanzania Coffee Research Institute (TaCRI) and District Agriculture and Livestock Development Office (DALDO), coffee farmers must apply fertilizers at least three times in mid December, mid February and late March. Likewise, pesticides must be applied four times a year in the months of September when flower buds are formed after harvest, January when flowers and fruits are set, late March and May for preventing from stem borers. In addition, fungicides should be applied twice-in late March and May together with the pesticides as indicated in Figure 6.3. The coffee farmers also believe that high yields cannot be obtained without applications of agricultural inputs.

As explained earlier, MBICU distributed agricultural inputs to farmers three times per growing season as recommended. After collapse of MBICU, however, private coffee buyers (PCBs) who purchased coffee did not distribute inputs to farmers. Therefore, in order to continue with coffee production, farmers were forced to purchase agricultural inputs by themselves on cash from private shops located in Mbinga town. However, the availability of inputs was also complicated by increase in prices of chemical fertilizers in private shops from 1996 (Figure 4.5) as well as decrease in coffee price.

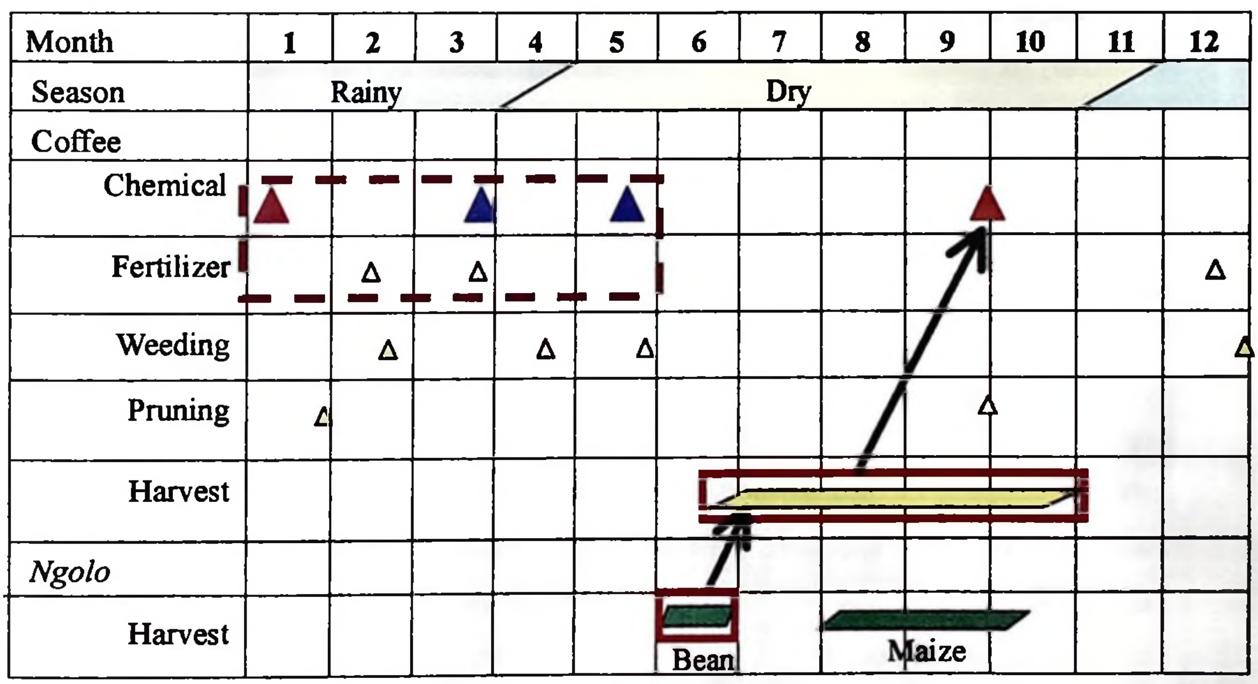
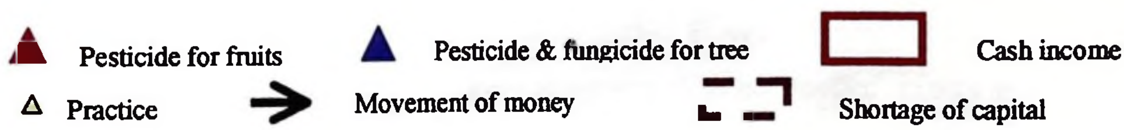


Figure 6.3 Annual calendar in the coffee and ngolo cultivations, and the relationship between them



Indeed, if the annual cost of agricultural inputs per acre, (following the application standard) is calculated, the chemical fertilizer is estimated at 112,000 Tanzanian Shillings (US$ 1 = Tshs. 1,050 in 2003). This is an example of using CAN (Calcium Ammonium Nitrate; 350 kg) which is the most popular fertilizer for coffee production. The prices of agro-chemicals in recent years have shown indications that are relatively stable (Figure 4.5). The annual cost of pesticide in

Mbinga is estimated at Tshs. 32,000. By taking an example of Dusban, which is one of the most common pesticides, is applied at 0.5 litters per acre four times a year. On the other hand, the cash income obtained from one acre of coffee farm in 2003 was estimated at Tshs. 150,000 – 180,000/- annually (coffee price of parchment coffee was at the lowest level in the last 30 years). It is estimated further that with the plant population density of 500 -550 trees/acre, one tree can produce approximate 1 kg of parchment coffee. Basing on these estimates, cost of fertilizers and pesticides was 80 – 95 percent of gross income of farmers. Furthermore, there is a chance that if the costs for transportation and fungicides are added, the net income of a farmer could decrease to almost zero. Therefore, the farmers had to reduce application of agricultural inputs and/or find other income sources to sustain coffee production.

Thus, the price of coffee in 2003 was at the lowest level to sustain coffee production. However, even when the income from coffee increased due to rise of prices in the market just after economic liberalisation, the Matengo could not use their income from coffee to purchase agricultural inputs from their coffee sales. This is because MBICU subtracted its operational cost from gross income paid to the farmers' net income. Following the collapse of MBICU, most of the farmers could no longer afford to purchase of agricultural inputs using income accrued from coffee. Thus, failure to manage coffee income and utilise it to purchase inputs among the farmers was another reason for a crisis in coffee production after liberalisation.

In the lowland areas of Mbinga District, coffee cherries start ripening from early in July. Since all coffee cherries do not ripe at the same time, thus, harvesting of coffee is not done in one day. Farmers have to continuously harvest coffee cherries for the period of 3-4 months. Thus, the recommended practice is to harvest coffee by picking the red, and fully matured only. Although some farmers can utilise family labour, others with bigger plots or well farmers to do have to employ hired labour to help harvesting during the season. It should be noted that, during harvesting period, most of the coffee farmers have already spent the coffee income obtained from the last season and thus, must use other income sources to compensate. Figure 6.3 also indicates how farmers used income from beans to support coffee harvesting as well as how coffee revenue is used to purchase pesticides needed in September. The red triangle indicates the pesticides for flowers and fruits, and blue triangle indicates the pesticide and fungicides for trees. The farmers could utilize the income obtained from beans in *ngolo* cultivation to pay for hiring laborers during coffee harvesting and then use the income from coffee to purchase pesticides in September. However, limited knowledge on financial management has hindered most of the farmers to purchase agricultural inputs from January to June. The seasonal gap between the time when farmers obtained and used coffee income has resulted to shortage of inputs during the crucial times, and hence affected coffee production. To solve the problems of shortage of funds to purchase inputs, farmers were required to be frugal and start to save in order to purchase agricultural inputs. During the liberalisation and free market period, agricultural inputs became available at all times in the shops of private stockists in Mbinga, albeit at unaffordable prices to most of coffee farmers in the villages. Thus, the increase in cost of agricultural inputs and decreasing coffee revenue forced most of the farmers to reduce the use of agricultural inputs.

Table 6.4 indicates frequency of the utilization of agricultural inputs before and following the collapse of MBICU. From the table, many farmers have continued to use agro-chemicals even after the collapse of MBICU though they have reduced the frequency of applications/utilisation. Farmers have reduced the frequency of utilisation because of limited cash income from coffee and most of them have opted to use chemicals selectively and in crucial times such as application of pesticides at the stages of flower bud formation and fruit setting. On the other hand, farmers reduced utilisation of fertilizers after collapse of MBICU. Respondents have explained this phenomenon as follows; *fertilizers are expensive and cannot be purchased by utilising input vouchers issued after selling coffee to purchase the same. Even if fertilizer is not applied, coffee can still yield, but if chemicals are not applied at the crucial stages, we cannot get any yield.* Thus, the selective use of agricultural inputs is one of the strategies used by the Matengo farmers to sustain coffee cultivation. Similarly, in order to reduce cost of production, an indigenous pesticide made from wild plant *Tephrosia vogelii* is often applied to coffee trees o prevent the attack from the insects.

Table 6.4 Utilization of agricultural inputs before collapse of MBICU and in 2003/04 seasons

Inputs	Season	User (n=62) Households	%*	Frequency of application
Chemicals	Before collapse of MBICU	51	82	3.0
	2003/04	49	79	1.8
Fertilizer	Before collapse of MBICU	51	82	2.3
	2003/04	20	32	1.4

*, % of respondents

6.2.4. Uses of animal manure to supplement chemical fertilisers

Table 6.5 shows utilization of animal manure before collapse of MBICU and during 2004/05 seasons. It indicates that the rate of households utilising animal manures among the respondents has increased from 23 percent before collapse of MBICU to 60 percent in 2004/05. More farmers have started to keep livestock, mostly pig and goat. Farmers apply manure mostly from pigs to the coffee farms as a substitute to chemical fertilizers. An important reason for the households to increase the utilisation of manure from pig is due to the fact that pigs are easier to keep and feed doors with maize bran in. Moreover, it is easy to collect manure accumulated in a small shed and apply it to the coffee farm. On the other hand, the numbers of ruminants (cattle, sheep and goats) that are tethered in grassland is small particularly in the limited lands in the mountain areas, and thus, most of the animal manure is lost during tethering. For the Matengo, majority of whom are followers of the Roman Catholic denomination, pig is a valuable livestock as source of food, manure and income.

Table 6.5 Utilization of animal manure before collapse of MBICU and in 2004/05 seasons

	Before collapse of MBICU	%*	2004/05	%*
Respondent	64		64	
Manure user	14	23	37	60
Source				
Pig	7	11	32	52
Goat	0	0	14	23
Cattle	0	0	7	11
Chicken	0	0	3	5
Applied to				
Coffee	14	23	35	56
Maize	1	2	3	5
Vegetable	0	0	4	6
Tobacco	1	2	0	0

*, % of respondents

6.2.5. Diversification of cash income from coffee to other activities

MBICU paid farmers revenue from the sale of coffee into three instalments, that was spread almost throughout the year. However, after the collapse of MBICU, the PCBs paid farmers on cash only once from mid August, when the coffee purchase season in Mbinga starts. In few cases, as a strategy to attract farmers to sell coffee to them, some of the PCBs have been paying farmers a part of income during the harvesting season. In Mbinga, due to limited income generating activities, farmers receive most of their income during the coffee selling season and utilise it to purchase pesticides that must be applied soon after harvesting. However, before the collapse of MBICU, most of this income was used by the farmers mainly for purchasing assets, debts repayment and daily necessities. As such, during the next growing season in (January), farmers had to obtain agricultural inputs through loans with high interest rates, a system called *magoma* in the Matengo language. For example, in 2000/02, if a farmer borrowed TShs. 10,000 in January, he/she paid 60 kg of dry coffee that was equivalent to one bag of dry coffee (approximately TShs. 30,000/-). This form of payment took place after eight months during the coffee harvest season. This exploitative loan system with high interest rate was used by farmers to obtain loans during emergencies, subsequently caused decrease in the farmer's income in Mbinga after the collapse of MBICU.

Under these situations, farmers were required to improve management of their income. Table 6.6 indicates how the respondents allotted coffee income to other activities in 2004. According to the Table, income accrued from coffee still plays important role for purchasing daily necessities and durable goods such as galvanized iron sheets. However, many farmers also have invested their income in other income generating activities. For example, 43 percent of the respondents have invested coffee income in livestock keeping mostly pigs which are marketable. Besides, 20 percent have invested into land in order to expand cultivation of crops for cash income. The income obtained from these various activities is re-invested into coffee cultivation through purchasing agricultural inputs.

Table 6.6 Distribution of coffee income to other activities (n=69)

		Households	%
Investment			
	Purchasing livestock	21	43
	Purchasing land	10	20
Savings		1	2
Expenditures (Durable)			
	House Construction	11	22
	Furniture	1	2
Expenditures (Daily necessities)			
	Education	11	22
	Daily needs	24	49
	Medical expanses	5	10
	Purchasing food	15	31
	Emergency	2	4
	Ceremonies	1	2
Agricultural running costs			
	Agricultural Inputs	10	20
	Waged labour	2	4
Others			
	Local brew	1	2

Table 6.7 shows the main sources of income in Kindimba and Kitanda. It further indicates that the Matengo are currently compensating the loss of revenue from coffee by engaging themselves in various income generating activities. Although before liberalisation coffee cultivation had supported all the activities including food productions and was almost the only source of income, the coffee cultivation recently has been integrated with other income generating activities.

Table 6.7 Sources of income used to compensate slumping of coffee revenue (2004)

	Kindimba (n=31)		Kitanda (n=31)	
	Household	%	Household	%
Crops selling	13	42	27	87
Food crops	5	16	26	84
Vegetables	11	35	16	52
Local brewing	23	74	9	29
Livestock selling	14	45	18	58
Waged labour	12	39	3	10
Handicraft/Carpenter	10	32	9	29
Store/Broker	10	32	3	10
Fish selling	0	0	2	6

The main sources of income in the two villages are different. From the table, main source of income at Kindimba is local brewing, while in Kitanda village the main sources are selling of crop and livestock. The difference between the two villages can be explained by shortage of land in Kindimba, while in Kitanda which is situated in newly settled area, farmers depend on income from the sale of food and some cash crops (Rutatora, 1996; Nindi, 2004). By examining the trend in the two villages, it can be concluded that availability of land is the main factor which determines the strategies employed by the Matengo farmers to compensate for he loss of coffee income.

Commercialisation of the food crops has resulted into the expansion of crop fields as indicated in table 6.8. Furthermore, Table 6.8 indicates the proportion of households which have expanded crop fields after the collapse of MBICU, have increased cassava fields and have expanded utilisation of the valley bottom lands. Stories from the elders' have revealed that in the past, the Matengo were not actively engaged in either cassava or valley bottom cultivation. However, in 1998 when El Nino rains affected food crops in Tanzania, the local government in Mbinga encouraged cultivation of both cassava and utilisation of the valley bottom in order to increase food production. Consequently, cassava and valley bottom cultivation have been added in their farming system. Most of the available valley bottoms have been opened up and utilised for cultivation of beans, maize, sugarcane and vegetables for cash income and food as shown in Photo 6.1. Likewise, figure 6.4 shows the annual calendar in the Matengo farming system. From the figure, income obtained from valley bottoms is utilised in purchasing agro-chemicals which is utilised during the fruit setting stage.

Table 6.8 Households that expanded crop fields following collapse of MBICU

	Ngolo (%)	Ridge (%)	Valley bottom (%)
Kindimba (n=31)			
Maize	10	29	3
Beans	32	3	3
Cassava	39	3	0
Vegetables	3	0	39
Sugarcane	0	0	48
Kitanda (n=31)			
Maize	32	10	6
Beans	29	6	16
Cassava	42	16	0
Vegetables	0	0	45
Sugarcane	0	0	0

Photo 6.1 Cultivation at the valley bottom

On the other hand, expansion of cassava cultivation has affected not only maize fields but also other livelihood aspects of the Matengo. For example, although maize bran is a major feed for pigs, the amount of bran, which is produced in the threshing process of maize, has decreased because consumption of cassava has increased recently. The consumption of maize always decreases from October till the next harvest from the valley bottom in March (Figure 6.1). Therefore, seasonal shortage of bran restrains the sizes and/or numbers of pigs which can be kept at once by a farmer.

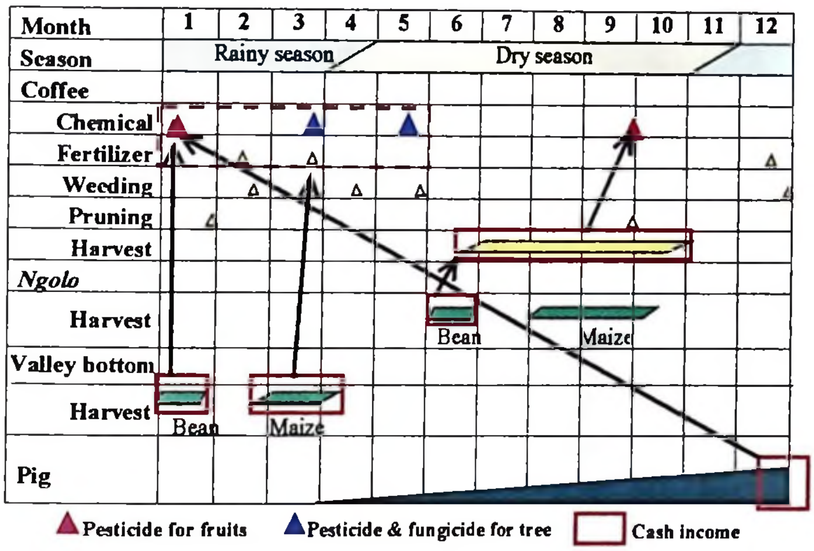


Figure 6.4 Annual calendar in Matengo farming system

Previously, the Matengo kept pigs until they reached a full maturity, that is about two years, before selling during emergencies or at ceremonies. After economic liberalisation, however, the Matengo have shortened the keeping cycle to eight month as indicated in Figure 6.4. The pig keeping cycle has been shortened by both shortage of maize bran and increasing demand for cash requirement at the household. Although a pig usually could bears between 5-10 piglets at once, shortage of maize bran makes it difficult for farmers to keep all of them at the same time. Therefore, to reduce the burden of keeping such a big number at the same time, a farmer with such a big number of piglets could distribute on loan some of them to his neighbours who would like to start keeping pig at that time but lack the initial capital for purchasing. On the other hand, some who receive it on loan will pay back after harvesting beans or coffee. In this way, farmers have used indigenous institutions to sustain coffee cultivation. Likewise, if someone gets a piglet in April, he will keep it until January when it is eight months old, sell it in order to get money for purchasing agro-chemicals. Income obtained after selling pigs is used for purchasing agricultural inputs to support coffee cultivation Furthermore, after selling a pig, the same farmer can sell his/her maize bran to other farmers during the time of shortage which is the months of between January to April. Thus, in order to reduce the costs of keeping all piglets at once, farmers must try to find a way of reducing the number.

During the field research, it was observed that most of the villagers who wanted to start keeping pig before coffee and beans selling season could not afford to purchase in cash. In this situation, villagers have utilised indigenous networks whereby the owners give out their piglets to the neighbours or friends who will pay back in cash after harvesting and selling beans or coffee. It becomes easier for farmers to obtain and start keeping piglets at anytime. Therefore, farmers have overcome this problem by using social network that enable them to obtain piglets on loan, while reducing the expenses of feeding large number of piglets at the same time. Both parties have been observed to benefit from this arrangement.

6.3. FARMERS' COPING STRATEGIES AFTER THE INTRODUCTION OF THE ONE LICENCE SYSTEM

6.3.1. Production of high quality coffee

The prices of Mild Arabica coffee are highly influenced by factors such as its quality, supply and demand. Thus, after primary processing, parchment coffee is categorised into several grades mostly by size and weight. Prices offered at the auction vary according to grade.

Prior to the liberalisation of the coffee market, MBICU employed extension workers to maintain the quality of coffee from the primary or village level and in the process, farmers felt obliged to produce good quality coffee. After the collapse of MBICU, for several reasons farmers lost the incentives to work hard and process good quality. First, coffee seasons started earlier than before. Second, some of the PCBs used unqualified staff who competed among themselves in purchasing coffee from farmers. As a result, PCBs ended up purchasing poor quality coffee which resulted into low prices fetched by Mbinga coffee at the auction. In addition, farmers who took loans from unscrupulous and non-authorised moneylenders in villages were pressurised to pay their debts earlier. As a result, some farmers boiled coffee cherries to shorten the processing so as to cheat the PCB and get money to repay their loans. This led to the deterioration of the quality of coffee from Mbinga.

After the introduction of the one licence system, the Tanzania Coffee Board (TCB) encouraged farmers to unite in groups in order to produce high quality coffee. TCB encouraged production of high quality coffee since good quality coffee fetches high prices at the auction. As pointed earlier, farmers' groups and AMCOS were encouraged and empowered to directly sell coffee at the auction. Likewise, TCB directed that parchment coffee must be purchased according to grades. On their part, farmers have responded by organising themselves into groups in order to produce high quality coffee which fetches high prices at the auction and hence an increase in their income.

Well maintained coffee cherries | Cherries infected by Coffee Berry Disease (CBD)

Photo 6.2 Quality of coffee

Photo 6.2 shows well-maintained coffee cherries and those infected by coffee berries diseases. Thus, production of high quality coffee that fetches high income at the auction is the first strategy employed by Matengo farmers in order to continue with coffee cultivation following the introduction of one licence system.

Parchment coffee is selected into several grades mainly by size and weight. Prices vary according to grades. As pointed out earlier on, some of the coffee farmers have managed to organise themselves in groups in order to produce high quality coffee and market it directly at the auction (Chapters 4 and 5). However, it is difficult to improve all the coffee to high quality, and farmers have designed marketing strategies that have enabled them to sell all the coffee produced as will be explained in the next section.

6.3.2. Farmers Marketing Strategies

The Matengo coffee farmers have adopted marketing strategies that have enabled them to sell all the coffee produced to different buyers for different motives as indicated in Figure 6.5. First, they sell high quality coffee through farmers' groups which pay higher prices compared to AMCOS and PCBs. Second, they sell medium quality coffee to AMCOS in order to acquire input purchase vouchers and to be paid in instalments. Third, they sell low quality coffee to PCBs that employ agents to purchase all the quality of coffee at any time and paying in cash. As such, farmers can get money at any time as long as they have enough coffee to sell. This strategy has enabled farmers to maximise their profit by selling all the coffee they have produced.

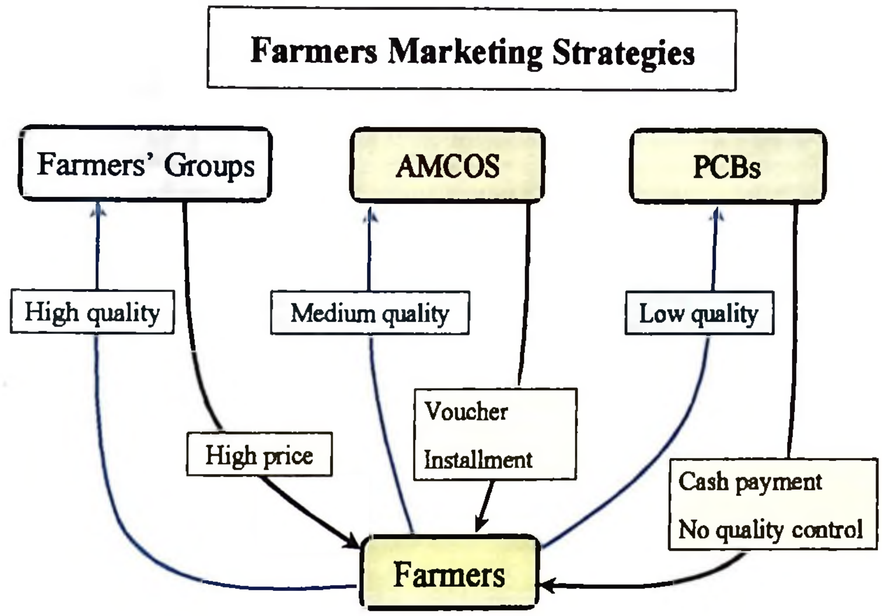


Figure 6.5 Marketing strategies of the Matengo coffee farmers

There are two methods of financing inputs in Mbinga. The first method is that agricultural inputs are exchanged with input vouchers at shops belonging to registered stockists in Mbinga or at the villages from AMCOS or some PCBs. The second, one uses cash obtained after selling crops and livestock to purchase the inputs. As pointed out earlier, farmers can obtain input purchase vouchers if they sell parchment coffee to AMCOS, and cherries to some of the PCBs. Even if farmers sell all coffee to AMCOS, the amount of vouchers that will be obtained will not be sufficient to purchase agro-chemicals and fertilisers needed to sustain coffee production.

Figure 6.6 indicates how respondents managed to use various income sources to purchase inputs. The respondents have utilised all the input vouchers for purchasing agro-chemicals (pesticides) applied to coffee only in September. As such, farmers have used several ways of obtaining cash for purchasing agricultural inputs needed in the rainy season as shown in Figure 6.6. It indicates that farmers can obtain cash income from selling livestock and food crops, mainly beans and maize, cultivated in the valley bottoms.

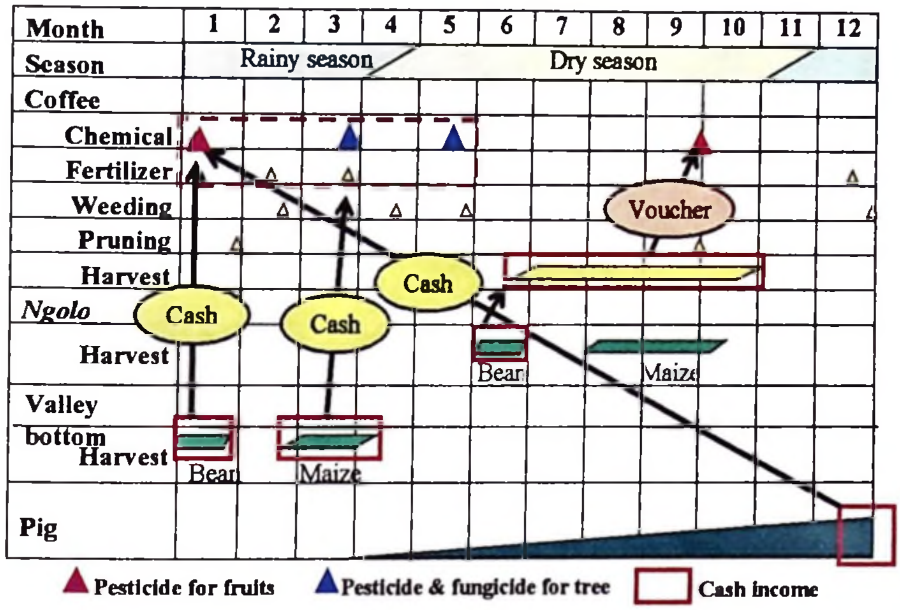


Figure 6.6 Sources used to purchase agro-chemicals and fertilisers for coffee production

6.3.3. Timing of the Market

Figure 6.7 indicates the trend of timing in selling coffee in Mbinga. Under a warehouse coffee receipt system, price offered by AMCOS is consistent throughout the year, whereas purchase prices of PCBs fluctuate frequently throughout the year. Although farmers are well aware of the fact that PCBs purchase coffee at cheaper prices at the beginning of the season, yet still some of them sell part of their coffee to PCBs during this time. Farmers are attracted to sell coffee to PCBs despite low prices offered because at the beginning of the season there is shortage of cash and most of the farmers need money for hiring labour for harvesting of coffee and/or to repay their debts. Thus, at this time, farmers can get cash by selling coffee to PCBs. Likewise; farmers would like to invest part of the income obtained after selling coffee to PCBs in other income generating activities. However, farmers tend to sell most of their coffee to AMCOS in order to obtain input vouchers for purchasing pesticides required in September. Thus, after obtaining enough input vouchers which would enable them to obtain pesticides, farmers start to sell most of their coffee, including lower grades which was rejected by AMCOS to PCBs. Given the fact that PCBs can purchase coffee in cash and at all time farmers do not need to work hard and produce high quality coffee. It should be noted that most of the farmers' groups in Mbinga have been organized in the mountain areas where the temperature is lower than that in the rolling hills. Therefore, from October onwards, the coffee marketing trend indicates that farmers who have organised in groups sell most of their coffee through their groups.

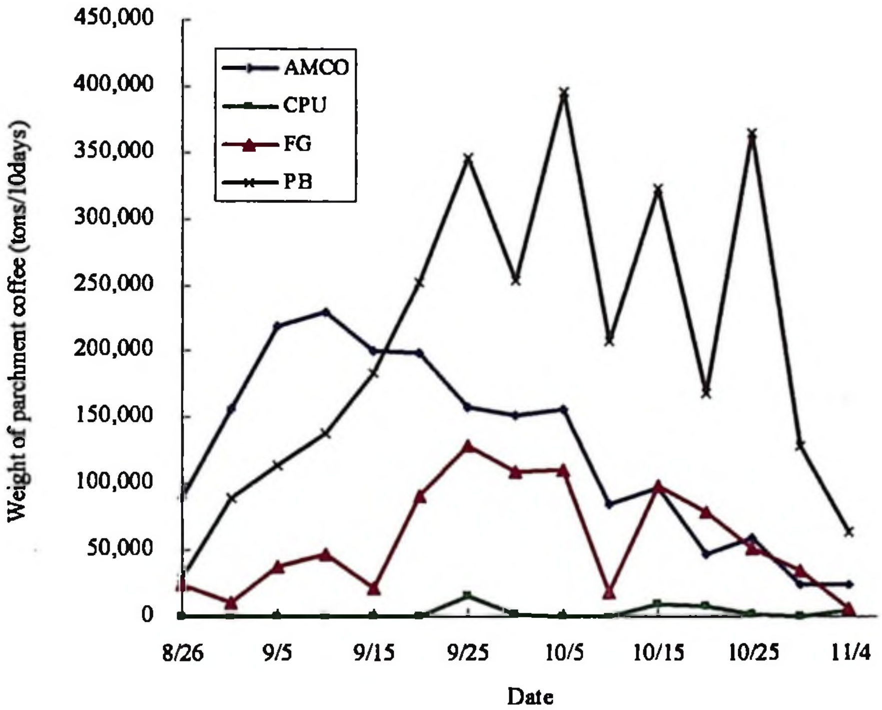


Figure 6.7 Seasonal changes of coffee brought into curing factory by buyers in 2004

6.3.4. Trends of Coffee marketing in Mbinga District

As noted earlier, PCBs started to purchase coffee in cash after liberalisation of coffee marketing in 1994. In the case of Mbinga, MBICU failed to obtain loans from the commercial banks and thus failed to compete with the PCBs, and subsequently collapsed in 1995. Therefore, soon after the collapse of MBICU, PCBs dominated coffee marketing in Mbinga. However, during the time when PCBs dominated coffee marketing, farmers complained that PCBs did not assist them in coffee production, such as distribution of agricultural inputs and provisions of loans. Likewise, PCBs paid uniform prices to each kilogram of coffee purchased regardless of the quality. Thus, with all these weaknesses, PCBs failed to cover the gap left by MBICU in provision of various services to coffee farmers. As pointed out in Chapter 4, AMCOS dominated coffee marketing in the 2002/03 season because there were only two PCBs licensed to purchase parchment coffee in Mbinga district. However, the trend of coffee marketing changed in 2003/04 when more PCBs were licensed and entered into the market. As a result, in 2004 PCBs managed to purchase more than 60 percent of coffee produced in Mbinga as indicated in figure 6.8.

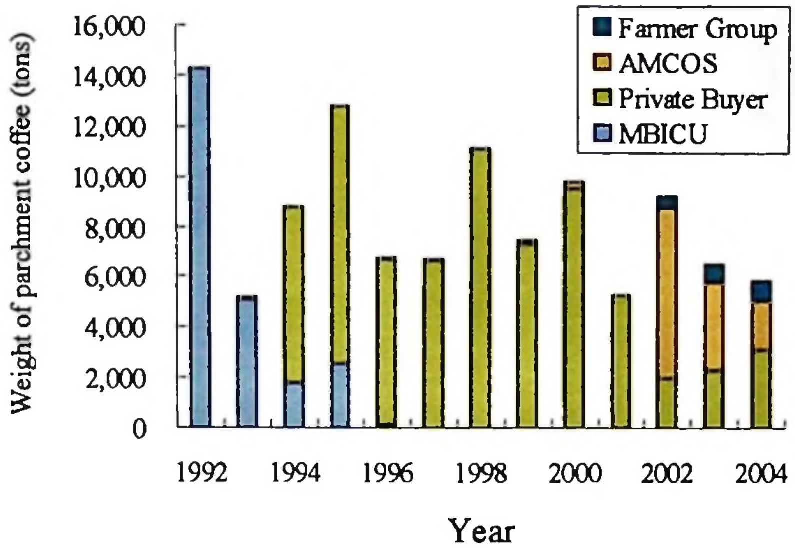


Figure 6.8 Trend of coffee marketing in Mbinga before and following marketing liberalisation

Despite their increase in number, PCBs still pay uniform prices for all grades of coffee and do not assist farmers in obtaining agricultural inputs. Ironically, farmers have continued to sell most of their coffee to PCBs, and less to AMCOS which issue input purchase vouchers and pay in instalments as indicated in figure 6.8. Thus, farmers sell most of their coffee to PCBs because they are employing several strategies in order to compensate shortage of cash income. Likewise, farmers have been used to free market and hence do not depend so much on the services offered by AMCOS.

Figure 6.9 indicates trend of coffee marketing in Kindimba, Kitanda and Mkumbi villages. From the figure, it can be observed that among the three villages, the coffee marketing in Mkumbi village was more competitive and most diversified. Therefore, farmers had wide choice of selling coffee to any of the coffee marketing actors, i.e. PCBs, AMCOS and farmers' groups as indicated in 6.9.

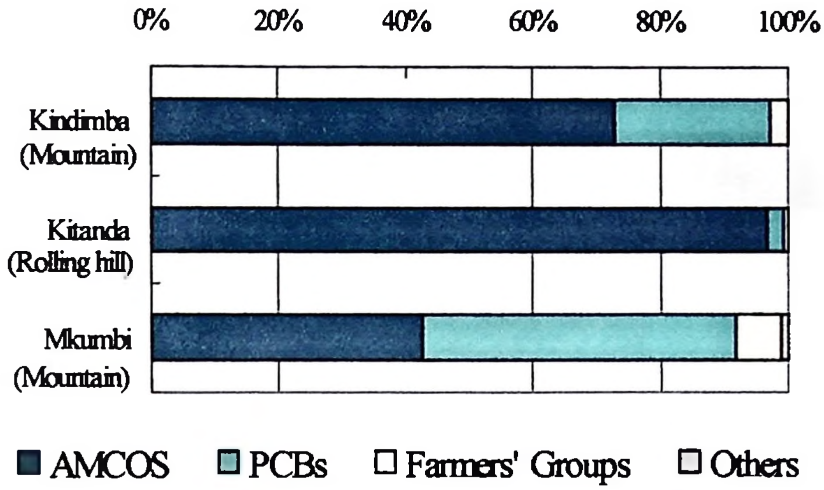


Figure 6.9 Ratio of parchment coffee purchased by different buyers in three villages
Note: Weight of cherry is equivalent to one fifth of parchment coffee

Like most of the AMCOS in Mbinga, Pilikano AMCOS in Mkumbi village paid in instalment and issued input vouchers without providing any special services to farmers, which is reflected in the trend of coffee marketing in Mbinga. As a result, coffee produced and purchased in Mkumbi areas is distributed among several buyers. Therefore, share of coffee purchased by different buyers varies with villages depending on the services provided by the buyers.

In Kindimba village, 70 percent of the farmers sold coffee to Ngaka AMCOS because of presence of the Central Pulperies Unit (CPU) managed by the MCCCo. Ltd. Most of the coffee farmers in Mbinga process their coffee domestically by using hand driven pulpery machine as shown in Photo 6.3. In few areas, farmers can sell coffee cherries to CPU managed by PCBs. However, most of the PCBs purchase only parchment coffee that has been processed by farmers at home. Moreover, in areas with CPU, farmers can reduce heavy work of processing coffee such as pulping, fermentation, washing and drying by selling coffee in the form of cherries. In Mbinga, there are two PCBs which manage 22 mini and central pulpier units. Besides, Ngaka AMCOS in Kindimba village manages a Central Pulpier unit. Thus, farmers who have access to CPU can either choose to process coffee domestically or sell in the form of cherries to the CPU. Moreover, another advantage of selling coffee to the CPU is to minimise theft of parchment coffee during processing and drying at home. It should therefore be noted that, the benefits obtained by farmers when selling coffee to the CPU are important factors which are taken into consideration by farmers when selecting market for their coffee.

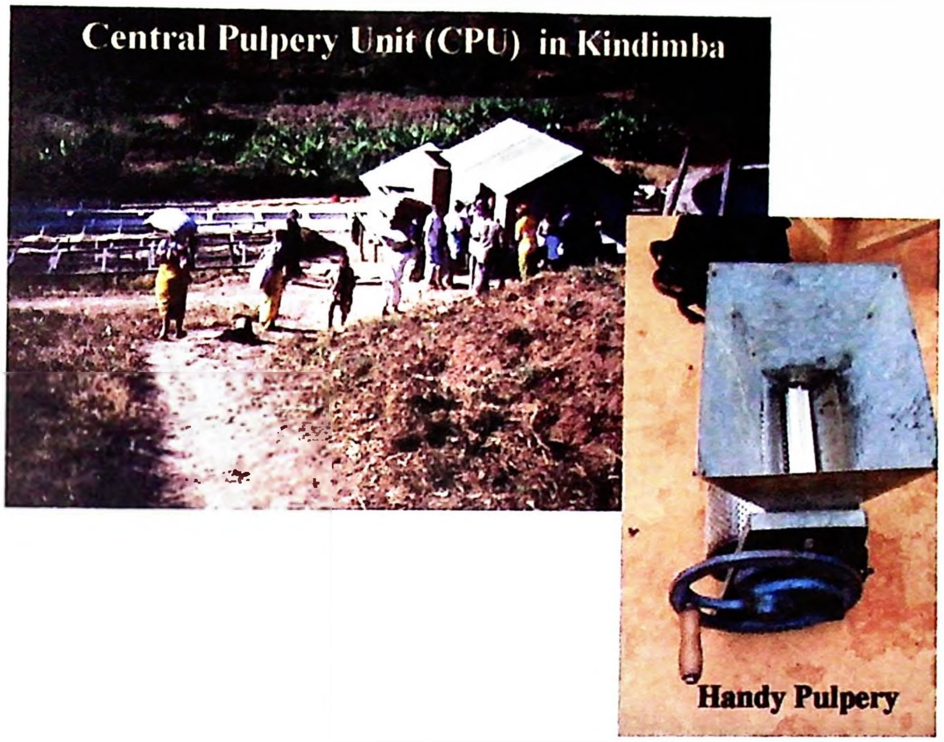


Photo 6.3 Two types of pulping; central pulperies unit (CPU) and hand pulpery

In Kitanda village, on the other hand, two reasons have assisted KIMULI AMCOS to dominate coffee marketing. First, it provides special services such as delivery of inputs, loan, renting a car during funeral, in addition to other normal services offered by all AMCOS in Mbinga (such as issuing input vouchers and paying farmers on instalments). Second, it purchases coffee in cash regardless of qualities. Most of the farmers prefer to be paid soon after selling their coffee. Thus since most of the farmers are attracted to sell coffee to the PCB because of the cash payment, KIMULI AMCOS has managed to compete on equal footing with PCBs. Under a warehouse receipt system, farmers have to wait for payment for at least two weeks. However, by using a capital reserve KIMULI has managed to pay farmers within a few days. Hence, KIMULI AMCOS has managed to purchase more than 90 percent of coffee in Kitanda village because it provides all services offered by the AMCOS and PCBs (Figure 6.9).

Therefore, most of the farmers in Kitanda village have confidence in the KIMULI AMCOS. However, the auction prices of coffee collected by KIMULI are lower because it has been observed to purchase all types of coffee regardless of grade. In order to improve the quality and to increase their revenue, KIMULI AMCOS has built the CPU which is expected to produce high quality parchment coffee than those which are domestically processed. Moreover, it has started to purchase coffee according to grade in order to encourage farmers to produce high quality coffee.

6.4. CONCLUSION

After the collapse of MBICU, coffee farmers in Mbinga were exposed to the market economy or famously referred to as free market. On the other hand, cost of production increased and thus, affected coffee production, challenging farmers to continue with coffee cultivation under such a difficult scenario. Farmers have adopted several strategies to deal with these problems of increasing cost of production and decreasing prices. Farmers reacted by adopting two types of strategies; those adopted after the economic liberalisation and those which were taken following the introduction of one licensing system.

Strategies adopted by Matengo farmers after liberalisation of coffee marketing were aimed at increasing cash incomes. First, by increasing the number of coffee trees which resulted in change in the Matengo farming system. This was done by shifting from maize cultivation to coffee, and consequently, there is reduction of land under maize cultivation as well as shortage of food for both people and livestock, especially pigs. Moreover, the decline in coffee income led to farmers' inability to purchase and use chemical fertilisers needed for production of both food crops as well as coffee. In addition, continuous utilisation of land in the mountain areas without fertilisers has reduced soil fertility and caused shortage of food. All these factors forced the Matengo to utilise land outside their villages for food crop production. Besides, shortage of maize, which is a staple food of the Matengo, forced them to introduce cassava in order to bolster household food security. In addition, shortage of food and cash income forced the Matengo to intensify utilisation of land by using increasing utilisation of valley bottoms for cultivation of both food and cash crops. Therefore, farmers have diversified their source of cash income by expansion of crop fields (mostly through utilisation of valley bottom for cultivation of crops for food and cash income). Thus, by introducing cassava cultivation, the utilisation of lands outside their villages and cultivation at valley bottoms, the Matengo have changed their farming system. Likewise, shortage of maize means that even amount of maize barn, which is food for pigs is reduced. Previously, the Matengo kept pigs up to three years, and sold them at times of ceremonies and emergencies. As a result of the shortage of maize barn however, the pig keeping cycle has been reduced from two years to less than one year.

Second, is that in order to supplement coffee incomes, the Matengo have diversified their sources of income by investing in several other income-generating activities such sale of pigs, local brew, and commercialisation of food crops. The decline in coffee incomes has exposed the Matengo to risks and uncertainty. In order to minimise the risks and uncertainty, the Matengo farmers have invested incomes accrued from coffee in other income generating activities, including livestock keeping and commercialisation of food crops. It has been observed that the Matengo farmers have increased pig keeping because pigs can be sold easily to obtain cash needed for purchasing agricultural inputs in order to boost production of both coffee and food crops as well as meeting other domestic necessitates.

Before the economic liberalisation, MBICU distributed agricultural inputs to farmers. Following economic liberalisation, farmers have to purchase agricultural inputs in cash from private shops. Farmers have responded to the decline in coffee income and rising of prices of agricultural inputs by minimizing utilisation of agro-chemicals, through selection of specific types of chemicals which are most important for coffee production. In this way, priority is given to utilisation of pesticides than fungicides and fertilizers. Moreover, utilisation of animal manure mainly from pigs has supplemented shortage of chemical fertilisers among the farmers. Therefore, after liberalisation of coffee marketing, farmers adopted four major strategies in order to sustain coffee cultivation, namely expansion of coffee fields, diversification of income sources, utilisation of coffee income for other activities and selective use of agro-chemicals.

Strategies adopted by the farmers following the introduction of one licence system are: production of high quality coffee, purposive sale of coffee and the formulation of a marketing strategy whereby, farmers have selected buyers according to benefits provided by the latter. First, they have organised themselves into groups to produce high quality coffee which fetches high prices at the auction. Likewise, group members have increased their income by selling coffee directly to the auction, instead of selling through AMCOS and PCBs. Third, coffee farmers sell coffee to selected buyers; selling high quality coffee to the groups which fetched high prices, selling medium quality coffee to AMCOS in order to obtain inputs vouchers for purchasing agricultural inputs, especially agro-chemicals, and lastly, selling low quality coffee to Private Coffee Buyers (PCBs) who purchase all types of coffee in cash and at any time. In this way, farmers have managed to sell all coffee produced at any time of their choice and obtain cash when needed and have increased their income. Thus despite increasing costs of production and decreasing coffee revenue, the Matengo farmers have sustained coffee cultivation by using various strategies.

In conclusion, we can say that farmers are gradually becoming used to free market forces and have reduced their dependence on the government. The farmers have learned to invest coffee income into other different income generating activities thereby diversifying their sources of income and reducing risks and uncertainties inherent in an unstable coffee economy.

CHAPTER SEVEN: CONCLUSIONS AND RECOMMENDATIONS

The global coffee production and prices at the world market fluctuate largely from one year to another mainly due to various such as vulnerability of coffee to the weather change. Under fluctuations in the production and prices of the crop, farmers in coffee cultivating areas had to produce food crops much more to ensure their livelihood. The Matengo farmers in Mbinga had developed the *ngolo* farming system for cultivating food crops in order to ensure their household food security. However, in areas with high population density, shortage of farmland and impoverishment of soil fertility had resulted in a decline in productivity from *ngolo* farming. Therefore to overcome the decline in *ngolo* productivity, the farmers had utilised agricultural inputs obtained by the income from coffee so as to improve their food production. As a result, the coffee cultivation had supported their subsistence and economy. However, the degradation of the coffee economy had also caused negative effect on the production of subsistence crops. Consequently, under the current situation the farmers in Mbinga are being faced with two major problems of obtaining cash income and attaining food security.

From the 1970s to the 1980s, coffee used to be one of the major cash crops in Tanzania. However, the coffee production in Tanzania has been rapidly decreasing in the last 20 years, especially after the liberalisation of the coffee market in 1994. The overall decrease in coffee production is a function of increased production costs which has resulted into decreased revenue from the same. In Kilimanjaro region which was the biggest coffee producing zone in Tanzania, farmers have shifted from coffee cultivation to the other income sources. In Kilimanjaro, its strong economic ties with the big cities and accessibility to major roads enabled to change the economic system. In contrast, over the last ten years, the production of coffee in Mbinga has remained relatively constant despite the tremendous economic changes including the collapse of MBICU. The Matengo people residing in Mbinga have continued with coffee cultivation because the district is located in a peripheral area, with limited marketing opportunities for wide range of agricultural goods. Therefore, the farmers are constrained in their efforts to diversify from a single source of coffee cultivation to other sources of income and are thus forced to continue coffee production even under the uncertainty in the coffee industry. Therefore, unlike the Chagaa of Kilimanjaro, the Matengo farmers could not abandon coffee cultivation because they do not have an alternative cash crop, and hence, they are trying to overcome the slumping prices and incomes from coffee by expanding coffee cultivation in order to increase their incomes accrued from sale of coffee.

Recently, it was pointed out that in most of the rural areas in Africa, sources of incomes have been diversified by combining both on farm and off-farm activities. Likewise, the Matengo farmers have tried to search for alternative sources of income. However, the general tendency in Mbinga has been to continue with agricultural activities, as opposed to off-farm activities. There are several reasons why the Matengo farmers have failed to participate in off-farm activities. While the introduction of SAPs in 1986 activated migration processes in the villages without commercialised agricultural activities, in Mbinga the situation took a different shape. Support from MBICU enabled farmers to expand their coffee farms which were somehow successful. Therefore, while farmers in other non-commercialised agricultural areas prepared to migrate, the Matengo did not need do so. Instead they concentrated on their economic activities within Mbinga District. As a result, when the coffee economy collapsed, the farmers lacked social networks and ties with the cities that would have assisted them to revamp the declining coffee economy. The Matengo farmers found themselves without an economically viable choice except to continue with coffee cultivation while waiting for the coffee prices to pick up again.

For the last several years, on the other hand, the coffee prices at the world market have been declining due to various reasons such as advancements in processing and production technologies, the introduction of disease resistance varieties and increased production in Vietnam. Therefore, the above reasons suggest that the decrease in coffee prices is no longer periodical, but is becoming a continuous and seemingly permanent phenomenon. Given the above trend, at the world market, it may tempt to surmise that further investment in coffee cultivation is an unreasonable choice with no vision. However, considering the economy in most of the rural areas with limited alternative income sources, even if benefits from coffee decrease, coffee is still relatively a good cash crop. Farmers in Mbinga have a very strong attachment to coffee cultivation that brought in enormous amount once upon a time. As such, to abandon coffee farming seems a non-viable feat. In addition, coffee cultivation involves year-around activities with high labour requirements. Therefore, migration of Matengo men means shortage of labour and abandoning coffee farms, might result in the collapse of the coffee economy. For the farmers in the peripheral areas such as Mbinga, who are used to the fluctuation of prices, waiting the increase of price is a much more realistic choice than giving up coffee cultivation without any viable alternative sources of income.

The collapse of the coffee economy did not impact the farmers only. The Mbinga district authorities are very devoted to coffee cultivation. This dedication has removed insecurity on the side of farmers. As a result, farmers neither abandoned coffee cultivation nor migrated to towns and cities. Likewise, in 1982, the Tanzanian government re-introduced the district councils and promoted the decentralisation policy. This policy has given the district councils the autonomy in the management of revenue collected in their respective areas. The revenue for the district councils comes mainly from the taxes on commercial activities and produce levies charged to major crops such as maize, coffee, and cotton. In the case of Mbinga, the district council depends mainly on coffee as a major source of revenue. The district taxes 5% of auction price for coffee produced in Mbinga. Thus, district authorities have continued to emphasise coffee cultivation as a major source of income and livelihood. The enthusiasm of the district officials is reflected in the formation of a committee that mobilised the AMCOS to collect coffee from farmers and sell it directly to the TCB auction. Moreover, the district by-laws prohibit farmers to uproot coffee trees in their farms. Consequently, the district authorities used by laws to enforce coffee cultivation and the results of these efforts are binding farmers to continue with coffee cultivation. Therefore, having realised the importance of coffee, Mbinga district has encouraged coffee cultivation by offering training in technology aimed at improving the quality and productivity of coffee as well as putting in place effective marketing systems to farmers in the district.

Though farmers in Mbinga have continued with coffee cultivation regardless of the continuous changes in agricultural policies, at the farmer's level, there have been changes in the processes of production and marketing. A shift from single marketing system to free market has caused fundamental changes in the village economy as well as farmers' consciousness toward coffee production.

It is also important to point out the fact that MBICU was established in 1989 with a weak capital base and depended heavily on the overdrafts from the bank. As a result, MBICU could not cushion itself against the fluctuation of the market prices. Moreover, MBICU supported coffee cultivation by distributing agricultural inputs to farmers and marketing their coffee. The farmers believed that they were not paying for the inputs. Therefore, although the prices of coffee at the world market were relatively not high, farmers did not worry about the cost of production and thus concentrated on coffee cultivation. Besides, farmers were able to use all their net income from coffee for other needs. This misconception on 'free' access to inputs was one of the causes of confusions, which occurred after liberalisation. However, when MBICU collapsed due to liberalisation of the market in 1996, farmers were required to purchase agriculture inputs in cash from their coffee revenue. The PCBs, which dominated coffee marketing in Mbinga following the collapse of MBICU, started to purchase coffee in cash and offered single payment to farmers. However, PCB's were not interested in the provision of inputs to farmers.

Soon after the introduction of economic liberalisation in Tanzania, prices of coffee at the world market increased rapidly, which also increased income obtained from coffee. However, and unlike in the hay days of MBICU, farmers were supposed to use part of coffee income to purchase agricultural inputs. In addition, cash payment in one instalment as opposed to the previous systems of payment in three instalments meant that farmers had to manage their coffee incomes by themselves. These changes that occurred during the economic liberalisation period confused farmers who were used to the old system in which agricultural inputs were provided for 'free'.

Furthermore, there are two events that brought enormous complexities to the coffee economy; in 1996: the increase in prices of agricultural inputs, and in 1998 Tanzania experienced El-Niño rains. On the other hand, at the beginning of the economic liberalisation, farmers rarely got enough income from coffee and obtained agricultural inputs through loans with high interest rate *(magoma)*. Therefore, most of coffee income was used to pay back such loans. Through the experiences of the complexities of economic liberalisation, farmers gradually understood what of economic liberalisation meant, and felt the importance of managing their incomes well. By investing their incomes from coffee into other income generating activities, farmers have managed to diversify their sources of income and minimised the risks brought about by decreases in coffee prices. Therefore, an important change that have taken place among the farmers over the last ten years, is the ability to manage coffee cultivation by purchasing inputs on cash terms and minimising risk.

In 2002, the Tanzania government introduced a one-licence system in order to activate competition in coffee production and sales thereby increasing incomes from coffee. By introducing the one licence system, almost all foreign companies were forced to withdrawal from purchasing coffee in production areas and instead concentrated on purchasing coffee at the auction and exporting it. As a result, AMCOS which were operating as agents of the PCBs for collecting coffee were empowered through loans from the CRDB and started to collect coffee from farmers and sell it at the auction. The CRDB introduced a warehouse receipt system, whereby loans are released to the AMCOS after receiving a report from the curing factory (MCCCo Ltd) that coffee has been delivered. Therefore, loans from the CRDB have enabled AMCOS to pay farmers their initial payments without waiting for coffee to be auctioned. However, using loans from the banks with interest rates of 25 percent further reduces the farmers' income.

Farmers' strategies have not always been commensurate with government policies. In 2002, most of the farmers sold their coffee through the AMCOS because there were only three PCBs licensed to purchase coffee in Mbinga District. However, in 2003, the trend of coffee marketing changed because more PCB's were licensed and they managed to purchase more than half of all coffee brought for curing at the MCCCo Ltd. As a result, the amount of coffee bought by the AMCOS was decreasing. Although the AMCOS are farmers' organisations, they do not get strong support from the farmers. This is because farmers still have fresh memories of the problems and confusion that occurred after the collapse of MBICU. As such, they are suspicious of farmers' organisations fearing they might end up like MBICU. In fact, there are reports that the management of some AMCOS has misused farmers' money and as a result, some of the leaders were dismissed. Furthermore, lack of transparency in the award of coffee prices at the auction and possibility of cheating during purchasing time has increased farmers suspicions.

After the collapse of MBICU, many farmers did not obtain agricultural inputs easily and expressed dissatisfaction against PCBs who purchased coffee without providing agricultural inputs. On the other hand, AMCOS capitalised the weakness of the PCBs by covering the input supply and issuing input purchase vouchers to farmers. Therefore, farmers who market their coffee through the AMCOS have acknowledged the merits and advantageous of the new system of purchasing agricultural inputs by utilising input vouchers. During the research, respondents pointed out the lack of agricultural inputs as one of the major problems hindering coffee production. Surprisingly enough, instead of selling more coffee to the AMCOS and increasing their chances of obtaining input vouchers, the same farmers have tended to sell more coffee to the PCBs. The gap between good reputation of assurance of input vouchers and actual sales accomplishment by the AMCOS, emanate not only from the suspicions of the farmers to AMCOS and the nature of the PCBs, but also the changes of farmers' consciousness towards the benefits from coffee.

Before economic liberalisation, income from coffee was invested into productive activities. For example, in Kindimba village, more than 30 households in one sub-village purchased diesel-milling machines for husking maize. However, today only a few machines are still operated on commercial basis due to competition among machine owners and expensive taxations. Failure of these investments and the decrease in coffee incomes have discouraged the farmers from investing into such seemingly valuable assets. As mentioned earlier, MBICU distributed agricultural inputs to farmers on loans and payment was done by deducting the debts after the coffee auctions. Therefore, income from coffee supported both the cultivation of coffee and other livelihoods activities. In contrast, after collapse of MBICU, several changes have occurred in the coffee sector. Some of these changes are the slumping prices of coffee and changes in the methods of payment. Thus, the single payment system has increased difficulties in management of incomes from coffee, especially for farmers who were used to multiple payments. As a result, there have been some changes in how coffee income is used; from investing into valuable assets to diversification into various income-generating activities in order to support the purchase of agricultural inputs for coffee cultivation. Thereafter, although coffee used to be the main income source for the Matengo, it was gradually incorporated into the daily production cycle and incomes from other sources have also supported coffee cultivation. On the other hand, the input vouchers system was introduced in order to sustain production as well as increasing incomes from coffee. However, in the process of economic liberalisation, flexible systems of livelihoods had developed and the vouchers for purchasing inputs were regarded as small investments. The farmers reduced their dependency on coffee as the major source of income and started to explore and use alternative sources. Therefore, during the past 10 years of implementing economic liberalisation policies, the farmers have departed from the state supported system by finding alternative strategies basing on their local situation. Under the adverse situation, farmers have learned to pursue economic activities at their own risks.

On the other hand, KIMULI AMCOS has monopolised coffee marketing in its areas of operation. Since the introduction of the one-licence system, the management policy of KIMULI AMCOS has been very unique. Under the talented and competent leaders, KIMULI AMCOS have tried to reduce operation costs by utilising their own car to transport coffee from the villages to the curing factory in Mbinga. Effective cost management has assisted them to boost their capital. In addition to the distribution of input vouchers and payment in instalments, KIMULI also started offering agricultural input loans and purchasing good quality coffee. KIMULI AMCOS has combined the merits of both AMCOS and PCBs, and thus, enjoys strong support from farmers and has managed to out win the PCBs in its areas of operation. However, the success of KIMULI does not only depend on its good and efficient management, but rather, in its areas of operation. The areas covered by KIMULI have several income sources that have been utilised by the coffee farmers to diversify their income sources. The interdependence relationship between coffee and other activities has made KIMULI the most reliable organisation to support efforts of the farmers who engage in various income-generating activities. Consequently, the farmers have accepted KIMULI and do not explore alternative channels for marketing any more. Critical comparative examination of the two depicts some differences. The success of KIMULI lies not only on principles of competition and good management, but also on the farmer's understanding that once the quality of service offered by KIMULI. However, when the activities of KIMULI are examined at a superficial level, the framers might become aware of that it operates like MBICU. If the services deteriorate, PCBs will come back and capitalise the weakness.

The Tanzanian government is aiming at improving the income of the farmers by encouraging the production of high quality coffee as well as enforcing regulations that make it compulsory for coffee to be purchased according to grades. Purchasing coffee according to grades rewards farmers who have worked hard to obtain the best grades. For example, in Mbinga, MCCCo Ltd, has introduced a new system of inspecting the quality of coffee brought by each organisation for curing, as well as exporting coffee according to its grades. Quality control is aimed at motivating organisations to increase their export of good-quality coffee, and subsequently, increasing their incomes. The marketing of coffee according to grades has motivated some of the farmers from the mountainous areas to organise themselves into groups in order to produce high-quality coffee. TaCRI and the District agricultural extension officers have provided training on appropriate technology for coffee production, processing as well as provision of new developed disease resistant varieties. These services, offered to some of these groups, have assisted them to increase the quality of their coffee and coffee revenue. However, these new initiatives do not imply that these groups are producing only high quality coffee, but rather, low quality coffee is also produced. Therefore, it should be pointed out that the farmers have utilised the current marketing channels to sell coffee to different buyers for different reasons. First, the farmers sell the high-quality coffee through their groups. Because farmers' groups market their coffee directly to the auction and obtain high prices as compared to other buyers, and it assures them of high prices per kilogram. Second, the farmers sell medium quality coffee to the AMCOS in order to obtain inputs purchase vouchers for the coming season. Third, farmers can sell low quality coffee to the PCBs because PCBs purchase the coffee on cash basis and do not mind about the quality. The efforts of improving quality of coffee at one hand and strategies to sell to different buyers on the other hand, are spreading fast among the actors in the coffee industry in Mbinga District.

Economic liberalisation has forced coffee farmers in Mbinga to attempt various activities related to policy changes as regards coffee production according to natural and social circumstances, while making the best use of their experiences learnt in the market economy. However, with an excessive supply, the price of coffee remains stagnated, while the price of the agricultural inputs keep on rising.

Despite all the odds against them, the Matengo coffee farmers have been able to cope with changes brought about by economic liberalisation. It is also not an exaggeration to say that the sustainability of the coffee cultivation in Mbinga will depend on the possibility of stable supply of the agricultural inputs at affordable price. Thus, it should be concluded that a ten year exposure to the economic liberalisation was a period, when under the adverse situation, the farmers learnt to pursue economic activities at their own risks. Based on these experiences, it is recommended that farmers should form organisations on their own initiatives in order to raise their bargaining power with the government, NGOs, coffee buyers, suppliers of agricultural inputs and all other actors in the coffee industry. Likewise, while coffee farmers in Mbinga strive to lower production costs, such organisations should assist farmers to obtain agricultural inputs at affordable prices. In addition, organisations should help the farmers to improve the quality of coffee so as to increase revenue from coffee. Therefore, in future, farmer-based organisations are expected to be multi-functional with the capacity and ability to address fundamental problems facing farmers.

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