THE IMPACT OF FAIRTRADE STANDARD ON SMALLHOLDER COFFEE FARMERS AND THEIR ORGANISATIONS IN SELECTED AREAS IN TANZANIA

BY

HELLEN MUNGUBARIKI SHAYO

A DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF SCIENCE IN AGRICULTURAL ECONOMICS OF SOKOINE UNIVERSITY OF AGRICULTURE. MOROGORO, TANZANIA.

2008

ABSTRACT

Fairtrade has become an alternative approach to convectional trade practices over the past decade. In Tanzania, Fairtrade organisations started doing transactions with Tanzanian coffee producers since early 1990s. Participation in Fairtrade initiatives has brought range of benefits and constraints to the producers and their respective communities. There have been several structural changes since 1999 when the last Fairtrade impact study was done in Tanzanian coffee industry. Up to 2008, Fairtrade standard is yet to be recognized by Tanzania Coffee Board in auction system, though direct export regulations allow the fine washed Fairtrade Arabica coffee of top grades. There is no significant statistical difference in coffee yield and net coffee income ($P<0.05$) among sampled FT farmers compared to non FT farmers. Harvesting of old coffee trees and high management and operation costs facing FT farmers are among the reasons for insignificant difference in coffee yield and net income. FT premium at KNCU is retained for investment in crop quality and infrastructure improvements or community projects, while at AKSCG it is distributed to the farmers groups for infrastructure construction and/or improvement. FT farmers organisations are guaranteed coffee market, accessibility of imperative market information and organizational capacity building training by Fairtrade organizations (ATOs). Inability to sell all FT coffee stock through FT channel, low level of awareness on FT market, networks, premiums or price floors among FT producers were observed to be some of the constraints related to Fairtrade compliance. FLO should appraise its generic standard concerning value addition to raw coffee to provide smallholder farmers organisations with an opportunity to earn more. FT processors and millers can pursue TCB to recognize Fairtrade standard in auction

system, this would be further step in creating FT market' awareness among stakeholders in the coffee industry. FT farmers organisations should improve awareness on Fairtrade standard through educational training so that farmers can make informed decision concerning compliance.

DECLARATION

I, Hellen M. Shayo, do hereby declare to the Senate of Sokoine University of Agriculture that this dissertation is my own original work and has not been concurrently being submitted for a higher degree award in any other University.

Shayo

Hellen M. Shayo
(MSc. Agricultural Economics candidate)

26th Nov. 2008

Date

The above declaration is confirmed

Dr. E.A. Lazaro
(Supervisor)

26/11/2008

Date

COPYRIGHT

ACKNOWLEDGEMENT

This work would not have been accomplished without the guidance and contributions from other people to whom I am greatly indebted. First and foremost, I would like to express my profound gratitude to my academic supervisor; Dr. E. A. Lazaro for her guidance, constructive ideas and suggestions, and devotion to the work throughout the study which are highly appreciated. I am highly indebted to Sokoine University of Agriculture in collaboration with the Norwegian government through the PANTIL Programme for their financial support through a scholarship provided to undertake my masters' degree programme.

I express my sincere thanks to the administrative staff of Kilimanjaro Native Cooperative Union (KNCU) in Kilimanjaro, Association of Kilimanjaro Specialty Coffee Growers (AKSCG) in Moshi and Mbinga and Tanzania Coffee Board (TCB) at Moshi for their valuable assistance during the data collection stage of this study. I am also greatly indebted to all the respondents at the villages in Moshi rural and Mbinga districts, without whom the study would not have been possible. My appreciation also goes to the academic staff members of the Department of Agricultural Economics and Agribusiness and my fellow classmates of 2006/2008 academic year for the various contributions and support during the entire period of my stay at SUA.

Special thanks are due to the family of Mrs. Meena who made my stay in Moshi comfortable. I extend my sincere thanks to my husband, Frank; my parents, Dr. M. E. Shayo and Dr. E. T. Shayo; my brother, Apollo; my sister, Flora; and my young

sisters, Grace and Winfrida; and friends for their moral, financial and material support during the whole period of study. Thanks for your prayers and being the source of encouragement to see this work accomplished successfully. Above all, I thank the Almighty God for bestowing me with good health, and patience during the entire period of this work.

DEDICATION

To my beloved parents; Dr. M. E. Shayo and Dr. E. T. Shayo who have been the source of aspiration to my life. May the Almighty God bless you abundantly.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

LIST OF ABBREVIATION AND SYMBOLS

AKSCG	Association of Kilimanjaro Speciality Coffee Growers
AMCOS	Agricultural Marketing Cooperative Society
ATOs	Alternative Trading Organizations
CPU	Central Pulpery Unit
DfID	Department of Foreign Development
EAFCA	Eastern African Fine Coffees Association
EPZA	Export Processing zones Authority
FINCA	Foundation for International Community Assistance
FLO	Fairtrade Labeling Organization
GDP	Gross Domestic Product
GNP	Gross National Product
ICO	International Coffee Organization
IIED	International Institute for Environment and Development
ITC	International Trade Centre
KCU	Kagera Cooperative Union
KDCU	Karagwe District Cooperative Union
Kg	Kilogram
KNCU	Kilimanjaro Natives Cooperative Union
MITM	Ministry of Industry Trade and Marketing
NBS	National Bureau of Statistics
NCIVS	National Coffee Inputs Vouchers Scheme
NGO	Non Government Organisation

PCB	Private Coffee Buyer
PCS	Primary Cooperative Society
PRIDE	Promotion of Rural Initiative and Development Enterprises
RIS	Research and Information System
SACCOS	Savings and Cooperative Credit Societies
SCAA	Specialty Coffee Association of America
SEDA	Small Enterprise Development Agency
TaCRI	Tanzania Coffee Research Institute
TCB	Tanzania Coffee Board
TCCCo	Tanganyika Coffee Curing Company
TPRI	Tropical Pesticides Research Institute
TZS	Tanzania Shilling
UNCTAD	United Nations Conference on Trade and Development
URT	United Republic of Tanzania

CHAPTER ONE

1.0 INTRODUCTION

1.1 Background information

Over the past decade, trade has been an important revenue base for developing countries, which are estimated to generate more than thirty times revenue per capita from exports than they receive in aid (Oxfam, 2002). Integration into the international trade has proven a powerful instrument for countries to promote economic growth, development, and poverty reduction (Jaffee and Henson, 2004; Henson, 2004). The integration of the international trade has raised living standards and brought increased opportunity to many parts of the globe (IMF and World Bank, 2001; UNCTAD, 2005).

A significant portion of internationally traded goods from developing countries is subject to standards (Jaffee and Henson, 2004). Standards have become an increasingly important influence on the international competitiveness of developing countries, especially in the context of high-value agricultural and food products (Jaffee and Henson, 2004; Henson, 2004). Standards, or rules governing characteristics of goods, are essential for the effective functioning of markets and provide an important support for the multilateral trade system (Gujadhur, 2003). Ponte (2004) explained that standards are understood as rules of measurement that can be established by regulation or authority (mandatory standards), through formal coordinated processes in which key participants in a market or sector seek consensus (voluntary standards) or by individual enterprises (private standards).

The manner in which standards are formulated or negotiated can raise difficulties in implementation and disputation in terms of costs and the required technical know-how (RIS, 2003; Oxfam, 2007). As border protection has declined, there is a concern that standards have been increasingly used to limit market access (adding unnecessarily to the costs of trade) and competition from imports (IMF and World Bank, 2001; ITC, 2003). Standards can also raise entry costs for exporters by increasing one-time costs of product redesign and the creation of an administrative system for compliance (ITC, 2003; Gujadhur, 2003).

In addition, standards impose recurrent costs of maintaining quality control, testing, and certification, and result in costs to meet precise technical regulations and carry out conformity assessments (whether a product conforms to a regulatory requirement). Indeed, conformity assessments are perceived as presenting the largest potential costs for exporters among technical standards (IMF and World Bank, 2001). However, standards can ensure quality and safety of the traded produce through compliance of the quality and safety requirements. Standards also can facilitate the mix and match of parts and components, and lower entry barriers by lowering inspection and testing (ITC, 2003).

Fairtrade standard as one of many standards have been established by Fairtrade Labeling Organizations International (FLO) with the aim of improving the livelihoods and well-being of the small producers by improving their market access, strengthening their organizations, paying them a fair price with a fixed minimum, and providing continuity in trading relationships (Giovannucci and Koekoek, 2003). Fair trade promotes standards for international labour, environment, and social policy

in areas related to production of Fairtrade labeled and unlabelled goods (FLO, 2007). Fair trade can also be regarded as a social movement which focuses in particular on exports from developing countries to developed countries (Global Exchange, 2002; Paul, 2005). Fair Trade initiatives established with the purpose of empowering farmers and farm workers to lift themselves out of poverty by investing in their farms and communities, protecting the environment, and developing the business skills necessary to compete in the global marketplace (Paul, 2005; Fairtrade Foundation, 2007). Fair Trade attempts to do so through the activity of trade in which producers are paid a 'fair price' and their organisations are offered varying levels of support services. The Fairtrade minimum price is the minimum price that a buyer of Fairtrade products has to pay to a producer organisation for their product (FLO, 2008). It is not a fixed price, but should be seen as the lowest possible starting point for price negotiations between producer and purchaser. It is set at a level which ensures that producer organisations receive a price which covers the cost of sustainable production for their product (FLO, 2008).

Fairtrade organisations (ATOs) deal with agricultural products (tea, coffee, cocoa, sugar, rice, flowers, spices and nuts) and non-agricultural products like handcrafts (FLO, 2008). Coffee was the first product certified as Fairtrade and still represents the backbone of the movement (Tuvhag, 2006). Up to March 2008, the worldwide Fairtrade network includes 598 Fairtrade certified producer organisations from 59 countries and more than 650 traders, with benefits reaching 7million people (farmers and workers plus their families and dependents) (Fairtrade Foundation UK, 2008). At the end of 2006, FLO International worked with 241 coffee producer organizations in Africa, Asia, and Latin America (FLO, 2008). This study intends to assess the impact

of Fairtrade standards on the selected coffee farmers' organisations and their members in Tanzania.

1.2 Coffee sector

Coffee is an important traded commodity in the world economy (Coffee guide, 2007). Countries producing and exporting coffee today are largely found in Latin America and Africa, but some Asian countries are emerging as major exporters of coffee, in particular Indonesia and Vietnam (Raynolds *et al.*, 2004; Raynolds, 2004). Coffee is one of the most important export commodities for developing countries, where 70% of coffee producers are small-scale farmers (Milford, 2004). Coffee is one of the major traditional export crops in Tanzania (URT, 2006). From 1960s to early 1990s traditional export crops accounted for 46% to 70% of export earnings, while from 1990s to mid 2000s the percentage has been decreasing due to value decline of some of traditional crops, coffee is included (Appendix 1). Other traditional export crops are cotton, sisal, tobacco, tea, and cashew nuts. The share of coffee in total foreign exchange revenues has increased from 15% in the 1960s to 33% in the 1980s and early 1990s, while from 1990s to mid 2000s the share has been decreasing due to its value decline (Temu, 1999; Mhando, 2005).

1.3 Coffee and Fairtrade in Tanzania

Fairtrade organisations have been buying coffee from Tanzania via parastatals since the 1970s (IIED, 2000). Since direct purchase became possible in early 1990s, a range of European, North American and Japanese Fairtrade organisations have bought coffee from Tanzanian cooperatives. Fairtrade organisations started doing

transaction with Kagera Cooperative Union (KCU) since 1988 for Robusta coffee, with Kilimanjaro Natives Cooperative Union (KNCU) since 1993 for Arabica coffee, with Karagwe District Cooperative Union (KDCU) since 1995 for Robusta coffee. Besides cooperative unions, there are also farmers groups which trade some of their coffee through Fairtrade channel, such as the Association of Kilimanjaro Specialty Coffee Growers (AKSCG). Coffee which traded as Fairtrade coffee mainly passes through two channels, either coffee auction which is supervised by Tanzania Coffee Board, or direct export which became into action since 2003/04 season for premium green coffee and organically produced coffee. Although there are other sustainability initiatives in Tanzanian coffee sector like Organic, Utz-Certified and Rainforest Alliance, but this study has focused on Fair trade because its initiatives concern more with smallholder farmers who are the major coffee producers in the country. In addition compared to other initiatives, Fair trade was the first to gain significance in Tanzania coffee (IIED, 2000).

1.4 Problem statement and justification

The last Fairtrade impact study on coffee in Tanzanian was done in 1999 in cooperative unions. The latter study observed that Fairtrade impact was insignificant for the smallholder farmers because the benefits are not reaching to the farmers rather it was retained in the cooperative union. Until the year 2007,when this study was done it is about eight years since the last impact study was done, therefore, analyzing the present impact of Fair trade initiatives on smallholder coffee growers in Tanzania is indispensable due to the following reasons. First there have been structural changes in the coffee industry; since the year 2002 up to present time

Tanzania coffee industry has been operating under the 2001 Coffee Act. The 2001 Coffee Industry Act brought three major changes in coffee licensing and marketing (Mhando, 2005). First, prohibits the multiple ownership of licences in domestic coffee marketing. Second, the 2001 Coffee Industry Act directs that all parchment coffee to be purchased according to grades. Third, 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 (Mhando, 2005). Studying the impact of Fair trade during this era is important due to the mentioned changes which have happened into the coffee industry. The previous study on Fairtrade impact was conducted when 1998 Coffee Industry Act was regulating and controlling the activities and processes in the coffee Industry.

This study focuses on diversified research area by including farmers association as well as cooperative union. The study contributes towards an improved understanding of the contributions of the Fairtrade standard for the development of the Tanzania coffee farmers especially marginalized smallholder farmers. It is helpful for policy makers, academicians and other institutions or individuals who have the interest of assisting marginalized farmers.

1.5 Research objectives

1.5.1 General objective

To assess the impact of Fairtrade standard on smallholder coffee farmers and their organisations.

1.5.2 Specific objectives

The specific objectivities of this study are: To

i) Assess the effect of Fairtrade standard on coffee yield and quality.

ii) Assess distribution, and use of the Fairtrade premium at farmers' cooperative union (KNCU) and farmers association (AKSCG).

iii) Identify benefits and constraints related with compliance to Fairtrade standard.

1.6 Research questions

i) How do Fairtrade premium being distributed and used at KNCU and AKSCG?

ii) What are the benefits, and constraints related with compliance to Fairtrade standard?

iii) What is the effect of Fairtrade standard on coffee quality produced by FT farmers' organisations?

1.7 Research hypothesis

There is significant difference in quantity of coffee produced between FT certified coffee farmers and non FT certified coffee farmers.

CHAPTER TWO

2.0 LITERATURE REVIEW

This chapter entails to give review in the following areas; Coffee and the global economy which covers coffee production and production trends, coffee trade and price trends, as well as coffee standards and developing economies. Then follows section on coffee and Tanzania economy which encompasses coffee' contribution to national income, coffee' contribution to livelihoods, institution organization of the coffee sector, accessibility of extension services, input supply, and credit services. Tanzania experience in standards compliance relative to other developing countries such as neighbouring countries of Kenya and Uganda is also reviewed. The last section of this chapter has the review of Fairtrade impact studies in some countries world wide.

2.1 Coffee and the global economy

Coffee is the second most widely traded commodity in the world (petroleum is the first) (Coffee guide, 2007). In 2004/05, coffee accounted for trade worth approximately USD 8.9 billion (ICO, 2007). Approximately 70 countries produce coffee worldwide (Coffee guide, 2007). Of these, 64% are responsible for over 97% of world output (Coffee guide, 2007). Of the 7.5 million tons of coffee produced worldwide, only 25% is consumed by the producing countries themselves (Milford, 2004). The main destinations for most coffee exports are the United States of America (USA), Japanese and European markets (Appendix 3). For many countries,

coffee exports not only are a vital contributor to foreign exchange earnings but also account for a significant proportion of tax income and GDP (ICO, 2007).

2.1.1 Coffee production and production trends

The bulk of the world's coffee is produced in Latin America and in particular in Brazil, which has dominated world production since 1840 (Milford, 2004). Brazil is the world's largest grower and seller of coffee. Vietnam, which expanded its production rapidly throughout the 1990's, now holds the number two production, bringing Colombia into third place and Indonesia in fourth (Appendix 4). 90% of the world's coffee production takes place in the developing world. Of the world's coffee production, 15% takes place on coffee plantations of more than 50 hectares. The majority (70%) is grown on farms of less than 10 hectares (Fitter and Kaplinsky, 2001). The income of coffee producing countries is insecure because of fluctuating international coffee prices. The coffee prices have shown a general downward trend, reaching a record low in 2001(Milford, 2004). Further details in world coffee price trends are covered in the following section.

2.1.2 Coffee trade and price trends

The international coffee market is characterized by relatively low price elasticities of supply and demand as reported by McClumpha (1998) and Daviron (1993) cited by Daviron and Stefano (2005). This means that percentage change in coffee quantity demanded and supplied is low compared to high percentage change in coffee price. The price elasticity of demand is low, with coffee demand dropping only when coffee prices increase significantly (Ponte, 2002a). As a result, prices on the world

coffee market are highly variable. Unexpected frosts or diseases are quite common, especially in Brazil, and can destroy large amounts of coffee (ICO 2007; Coffee guide, 2007). Supply shortage then leads to high coffee prices without a significant reduction in consumption (Raynolds, 2004; Murray *et al.*, 2003). The constantly changing prices mean that coffee farmers all over the world live in a situation of uncertainty in which it is difficult to make plans for the future (Milford, 2004; Fairtrade Foundation, 2007).

The last boom in prices came in 1995, when a frost destroyed large yields in Brazil. Since then world market coffee prices have fallen drastically, and reached their lowest level in 30 years in 2001 (Milford, 2004). This created large macroeconomic difficulties for poor, indebted countries that receive a large share of their export earnings from coffee sales. One of the reasons for the low prices was overproduction (Raynolds *et al.*, 2004; Milford, 2004).

2.1.3 The coffee commodity chain

Figure 1 gives a general picture of the coffee commodity chain. The complex chain contains many linkages; Milford (2004) noted that a coffee bean can change hands as many as 150 times from producer to consumer. In the simplified coffee chain depicted here, the primary producers sell their unprocessed coffee to private intermediaries and/or cooperative unions, who transport the coffee to the processing plant. After being processed, the coffee is sold by a local exporter to an international trader and the other portion is sold in the producing countries for local consumption. The roasting companies usually purchase the coffee from the traders, and sell it on to

the retailers, meaning supermarkets, restaurants, hotels and coffee bars. Finally the coffee reaches the consumers (Milford, 2004).

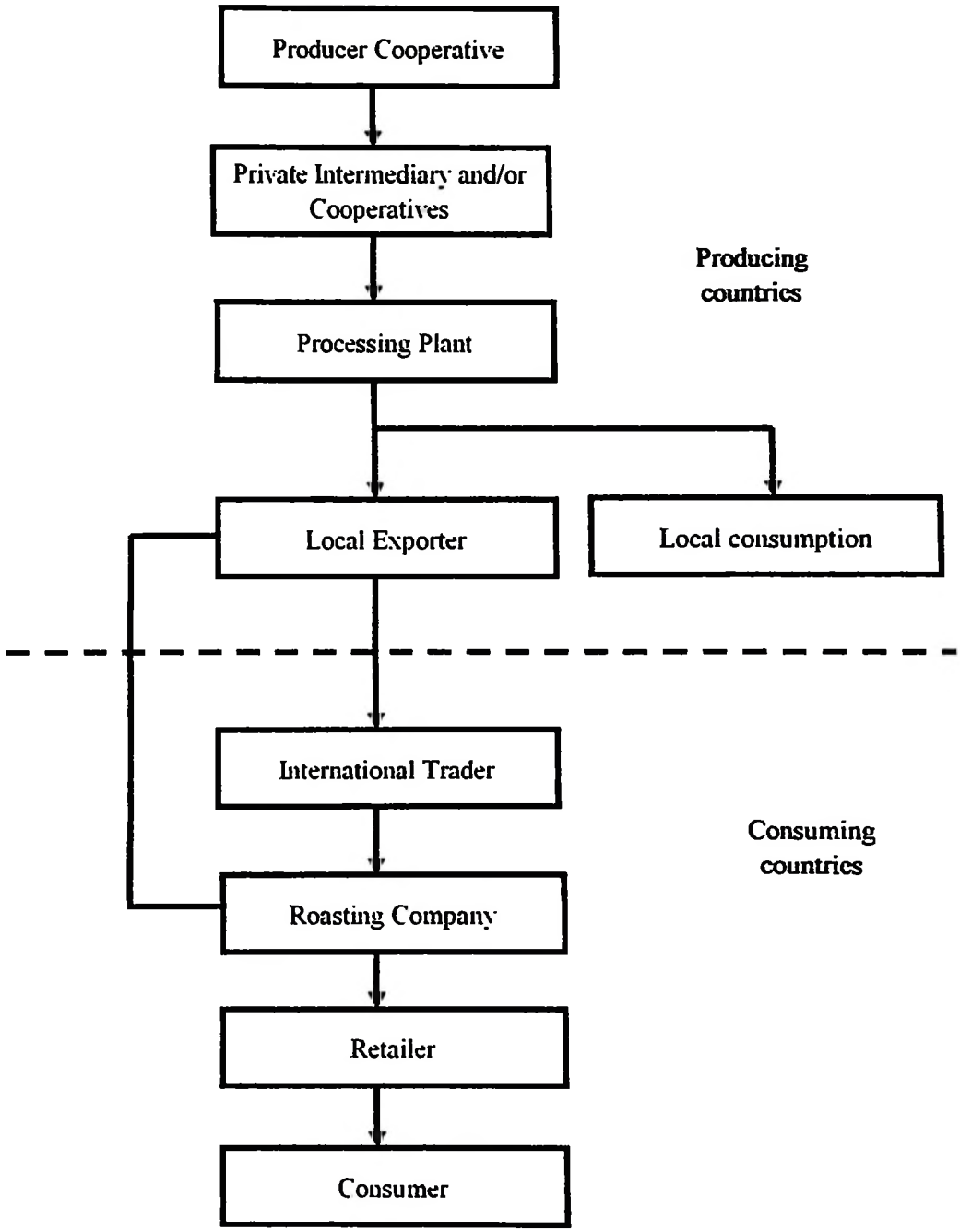


Figure 1: Commodity chain for 'normal' coffee

Source: Modified from Mildford (2004)

2.1.4 Standards in global coffee industry

More than 80 percent of the coffee production is traded internationally (Tuvhag, 2006). Looking at the normal coffee commodity chain (Fig.1) shows that while the producers mostly consist of small scale farmers in the developing world, most of the coffee on the world market is roasted and commercialised by a few multinational firms in the industrialized world, where most of the coffee is consumed. At certain points in the commodity chain between production and consumption, significant amount of coffee is subjected to standards.

Growing consumer concern about food production methods and impact on poor people and environment has translated into various standards in the coffee sector that seek to meet these demands (Lazaro and Makindara, 2008). Standards that influence or relate to the sustainability of the coffee sector are of recent hot topic in the global trade, these include Fair trade (including the Max Havelaar label), Rainforest Alliance, Organic and Utz certified (Daviron and Ponte, 2005). The broad notion of sustainable coffee was developed within the North American specialty industry, although the first forms of sustainable certified coffee were developed in Europe by the fair trade movement (Develtere and Pollet, 2005).

The concept of sustainability in the realm of specialty coffee includes aspects variously referred to as economic viability for farmers, environmental conservation and social responsibility (ICO, 2007). Economic viability referred with reasonable earning for all in the coffee chain, free access to markets and sustainable livelihood. Environmental conservation aims at protecting primary forests and conserving

natural resources in production and post-harvest operations. Social responsibility calls for decent working and living conditions for farmers and their families as well as employees (Daviron and Ponte, 2005; Fairtrade Foundation, 2007).

2.1.4.1 Sales trend of sustainable coffee

The sustainable coffee market is small niche i.e. one percent of the 85.7 million bags exported by International Coffee Organizations (ICO) member countries in 2003. Yet it is growing fairly rapidly and attracting increased interest in the industry (Develtere and Pollet, 2005; Daviron and Ponte, 2005). In the year 2000 the volume of certified sustainable coffee globally was estimated to be around 272 000bags (60 kilo per bag) for a retail value of US$490 million, when non-certified coffee sold as sustainable, the figures rose to 318 000bags for a retail value of US$565 million, around 1.2 percent of the global coffee market (Daviron and Ponte, 2005). Table 1 show the estimated volumes of third part certified sustainable coffee sold in 2006.

Table 1: Estimated volumes of third part certified sustainable coffee sold in 2006

Standard	Volume (60kg bags)
Fair trade	833 000
Organic	1 152 000
Rainforest Alliance-certified	453 000
Starbucks CAFÉ	1 174 400
Utz Certified	600 000
Gross total[1]	4 212 400
Percentage of total exports	4.6

Source: Giovannucci (2007)

[1]The net total is likely to be around 3.6-3.7 million bags, due to some overlap between Fairtrade and Organic and that actual purchase of Starbucks CAFÉ are lower than the total certified figure entered here.

Table 2: Sales of Fairtrade coffee, 2002-2006, in m/tones

Market	2002	2003	2004	2005	2006
Total Sales	**15 654**	**19 873**	**24 222**	**33 991**	**52 077**
Austria	409	463	519	571	747
Belgium	632	763	865	912	1 047
Canada	425	625	826	1 401	2 268
Denmark	655	543	550	600	733
Finland	109	113	120	137	284
France	1 386	2 368	2 784	5 342	6 175
Germany	2 942	2 865	2 981	3 278	3 908
Ireland	60	100	126	166	304
Italy	243	230	225	243	260
Japan	10	22	55	130	147
Luxembourg	68	65	70	88	91
Netherlands	3 140	3 096	2 982	2 860	2 845
Norway	232	313	366	436	484
Sweden	289	294	375	520	953
Switzerland	1 246	1 550	1 462	1 487	1 535
United Kingdom	1 954	2 889	339	4 482	6 238
United States	1 854	3 574	6 577	11 240	23 568
Australia/New Zealand	-	-	-	99	299
Spain	-	-	-	13	193

Source: FLO (2007)

Note: Due to rounding totals may not add

Almost all coffee sold as Fair Trade is consumed in industrialized countries (Murray *et al.*, 2003). The demand for Fair Trade coffee is growing rapidly; Table 2 and Fig.2 shows how sales of Fairtrade coffee have been increasing since 1999. But this demand for Fair Trade coffee is still far from absorbing all certified coffee on the market (Raynolds, 2002b). However, as opposed to the market for conventional coffee, there may be positive effects from the so-called oversupply. This is as competition remains despite the floor price provided by the Fair Trade, which

otherwise could have decreased incentives for uncompetitive producers to exit the market (Tuvhag, 2006).

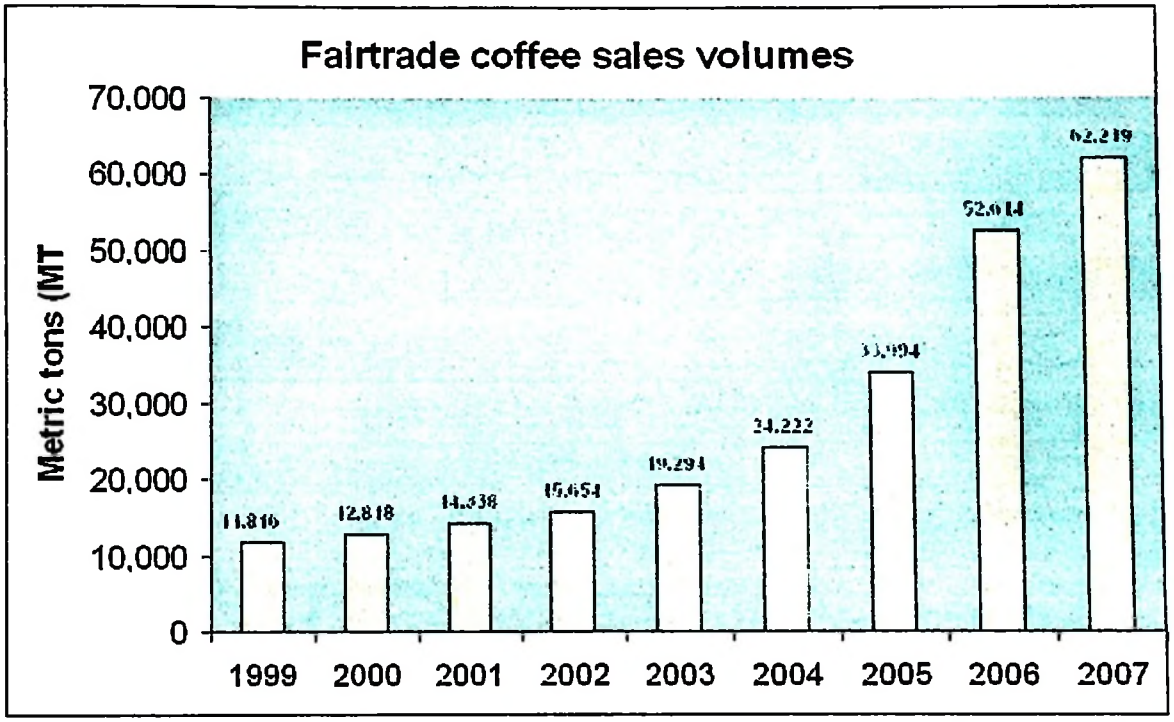


Figure 2: Fairtrade coffee sales volumes from 1999 to 2007

Source: FLO (2008)

2.1.5 Coffee standards and developing economies

Standards are designed to address a wide variety of needs and goals (Lazaro and Makindara, 2008). Formally or informally, standards can be applied to products, services or processes to promote safety and ethical commitment, compatibility and efficiency, and effectiveness and ease to use. There are many ways by which standards are classified; however broadly, standards can be categorized as private, mandatory, and voluntary. Ponte (2002b) argued that the distinction between

mandatory, voluntary and private standards, however, is becoming increasingly blurred. Although voluntary standards are not mandatory by rule, some of them (such as the ISO 9000 standards on quality management) have become *de facto* standards, meaning that they are required for producers if they want to compete globally. Adherence to voluntary and/or private standards is often a pre-condition for the acceptability of products by consumers and/or distributors (Jaffee and Henson, 2004).

Complying with the standard requirements by producers which are mostly from developing countries poses major challenges in market accessibility in importing countries. Quantifiable tariff barriers aren't the only hurdle for developing country exports. A study by International Trade Centre shows that Least Developed Countries (LDCs) are the most exposed to non-tariff barriers (ITC, 2003). Von Kirchbach and Mimouni (2003) argued that one of the hurdles that are blocking the track to better market access is the issue of non-tariff barriers (food safety standards, environmental certification and other quality standards) which are growing and in the case of LDCs, they are particularly dramatic (Gujadhur, 2003). A staggering 40% of LDC exports are subject to non-tariff barriers, standards included. For developing and transition economies and developed countries, the figure is only 15%. Even with preferential agreements that grant LDCs duty-free access to markets, non-tariff barriers may prevent these countries from entering those markets. This may oblige exporters to diversify into markets with fewer non-tariff barriers, but which may have higher tariff rates (ITC, 2005).

Contemporary food consumers in high-income economies demand complete information on a product so that they can make individual choices in relation to personal beliefs (on food safety and environmental protection, for example) and taste preferences (Jaffee and Henson, 2004). In this situation, consumer protection is not uniquely a matter of food safety, but also of supplying reliable information to facilitate consumer choices (Ponte, 2002b). Therefore, the management of quality may be seen as a question of competition and/or cooperation between the actors of a value chain, each one having only partial access to and control of information on the product and its related production and process methods. For some products, importers in European markets are now asking for specific standards, such as the EUREPGAP, as a de facto requirement for market entry (Ponte, 2002b). The World Trade Organization (WTO) environmental database indicates that the share of environment-related standards and technical regulations as percentage of all technical barriers has grown from 10 percent in the early 1990s to 15%-16 % in 2000s (UNCTAD, 2004).

While an increase in the number of environmental requirements can be read as positive, it also presents a challenge on how to ensure that environmental requirements do not unnecessarily hurt developing countries' export growth (Henson, 2004). Requirements for compliance to standards can be a barrier for developing countries to participate in trade and, more seriously, may lead to the exclusion of small-scale producers in developing countries from global supply chains (UNCTAD, 2007).

While standard requirements may act as barrier to market entry, they can also help developing countries to upgrade their market competitiveness and improve agricultural practices (Henson, 2004). Antonelli (1997) sees standards as institutions that shape both markets and market agents.

2.2 Coffee and Tanzania economy

2.2.1 Contribution of coffee to national income

For several decades coffee has been the most important traditional export crop in Tanzania. In 2006 the value of coffee exports was US$ 61.4 million from US$ 74.3 million in 2005, equivalent to decrease of 17.4%. However, the prices of coffee in the world market increased from US$ 1 613.6 per ton in 2005, to US$ 1 953.1 per ton in 2006, equivalent to an increase of 21%. The increase in coffee prices in the world market was largely due to low coffee production in Brazil and Vietnam, which are the world largest coffee producers. On the other hand, the volume of coffee exported decreased from 46 100 tons in 2005, to 31 000 tons in 2006, equivalent to a decrease of 34.7% (Appendix 1). It is estimated about 10% of the total agricultural contribution to the national income delivered from coffee exports. For example in 2005, coffee exports contributed about 9% of total agricultural contribution (48.3%) to the national income (Appendix 2).

For many countries, coffee exports not only are a vital contributor to foreign exchange earnings but also account for a significant proportion of tax income and gross domestic product (ICO, 2007). Coffee producing countries (excluding Brazil, Venezuela, and Indonesia) the average share of coffee exports in total export

earnings exceeded 10% in the period 2000–05, although it is interesting to note that as a result of the low coffee prices over this period, the share of coffee exports in total export earnings has fallen quite sharply in a number of countries. Even so, given the importance of coffee for most coffee producing countries, lower coffee revenues have had a marked impact on their overall total export earnings (Coffee guide, 2007).

2.2.2 Contribution of coffee to livelihoods

Coffee industry is providing a livelihood for some 25 000 000 coffee farming families around the world (EPZA, 2005). Coffee industry in Tanzania is a significant source of employment in rural communities, as it requires labor all year round: from pickers and sorters to equipment technicians and exporters. Approximately 95% of Tanzania's coffee is grown by 400 000 small-scale farmers, each owning fewer than 5 acres of land (Technoserve, 2006). This situation is different from that of other countries such as Latin America countries were large-scale production is more advanced. For example in Kenya coffee is grown by small-scale (60%) while 40% is done by large scale farmers at plantation level (EPZA, 2005).

According to DfID's Sustainable Livelihoods framework, livelihoods also examine coping and adaptive strategies in order to gain an understanding of how people make a living. Together, coping and adaptive strategies "represent the methods in which humans respond to the shocks and transition within an ecosystem". The decade long decline in Tanzania's coffee quality and quantity which in certain circumstances made worse by the global coffee crisis have been regarded as one of the shocks

which faced the majority of Tanzania's 400 000 smallholder growers (Baffes, 2005; Technoserve, 2006). Poor farming practices, driven by lack of income, observed to be some of the causes of above problem; as they earn less and less, growers are increasingly unable to make on-farm investments and coffee quality and volume suffer. Consequently affects the contribution of coffee to livelihoods of the producers (Technoserve, 2006). One of the coping strategies adapted by coffee producers was shifting to other crop cultivation. For instance, in Kilimanjaro and Meru which was the biggest coffee producing northern zone, 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 (Mhando, 2005). Shifting to other crop cultivation has been also experience in other coffee producing countries like Ethiopia where coffee farmers shifted to *khati* production (Daviron and Stefano, 2005).

2.2.3 Institutional organisation in coffee sector

Institutional organisation in Tanzania coffee sector comprised with various actors in the industry. Tanzania Coffee Board (TCB) being at the top as regulatory body which take full responsibility for monitoring and regulating the coffee industry. Other actors in the coffee industry include the ministry, research institute, producer associations, processors, and traders. Appendix 5 shows some of the current principal institutions involved in the Tanzanian coffee sector and summary of their functions and responsibilities.

2.2.3.1 Coffee Industry Act

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 (TCB, 2003). Coffee Industry Act is used as the measure taken by the government to correct any arising weaknesses in the coffee industry (Mhando, 2005). The current Act under operation is the Tanzanian Coffee Industry Act number 23 of 2001 which used to provide Tanzania Coffee Industry regulations of 2003 (TCB, 2003). Tanzania coffee industry regulations cover area of registration of coffee farmers, cultivation and husbandry of coffee, coffee grading and quality control, registration and licensing of coffee central pulpers, buyers, processors and exporters. All these functions are undertaken or supervised by the Tanzania Coffee Board (TCB).

2.2.3.2 Marketing functions along the chain

Marketing functions in Tanzania coffee sector is controlled by Coffee Industry Act number 23 of 2001 provided by Tanzania Coffee Board (TCB). The necessity for the 2001 Coffee Industry Act lies in the weakness of the 1998 Coffee Industry Act (TCB, 2003; Mhando, 2005) which allowed possession of multiple licences in coffee marketing which made it possible for private coffee buyers (PCBs) to perform all four functions relating to domestic coffee marketing: purchasing coffee from farmers, processing, curing and exporting. Before the 2001 Act, the PCBs in Tanzania were vertically integrating 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, 2002a; Baffes, 2005). This phenomenon has been termed 'repossession' or 'captive coffee.

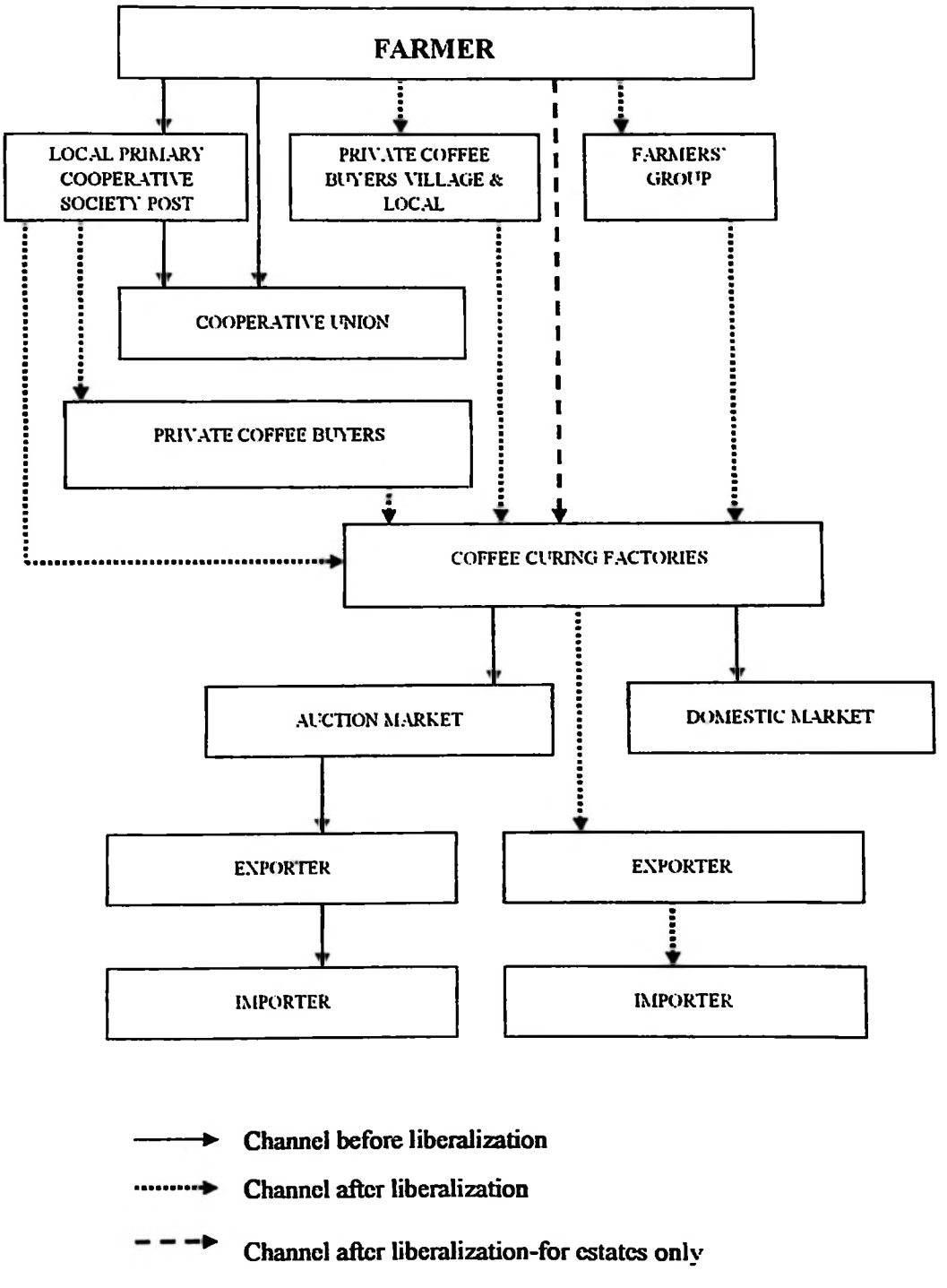


Figure 3: Tanzanian coffee marketing channel

Figure 3 show domestic marketing channel of coffee starts with a farmer (smallholder or estate/plantation) and ends with various participants performing several functions along the channel. The channel from farmer to coffee curing company is only for estate/plantation farmer(s).

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. But still there are problems relating to possession of single licence, (MITM, 2007) reported Tanzania coffee industry to be less competitive compared to Uganda and Kenya market structure which is highly competitive. Kenya and Uganda coffee act allows coffee agencies to pulp, mill and market coffee therefore increase competitiveness in the market. MITM report recommend removal of one license rule in Tanzania coffee industry in order to allow multinationals to handle coffee throughout the chain, this will enable local processors to become part of global networks in the coffee industry.

2.2.4 Coffee inputs market and availability

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 (Temu, 2001). The economic liberalisation policies put an end to the government monopoly in the supply of agricultural inputs to farmers (Mhando, 2005). 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 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, 2001). As a result, farmers were left on their own to continue with production but without a reliable supply of inputs (Temu, 1999; Ponte, 2002a). 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, 2002a). Farmers must purchase agricultural inputs on cash basis. Moreover, there are complaints on the quality of such inputs, as some farmers have complained that some of inputs are ineffective (Temu, 1999).

Generally, the liberalisation of the inputs market has opened a door for unfaithful traders to cheat farmers and sell low quality inputs. Subsequently, coffee farmers dramatically reduced the use purchased agricultural inputs in coffee production. Mhando (2005) argued that due to the above problems facing the farmers in obtaining agricultural inputs led to the formation of National Coffee Inputs Voucher Scheme. This scheme is further explained in Appendix 6. While Tanzanian input market system does not support coffee producers to have access to farm inputs, in other countries like Uganda the situation is different where by production inputs are

available and accessible to farmers because producers are paid in cash (MITM, 2007).

2.2.5 Agricultural credit services

Small-scale farmers are often excluded by commercial credit facilities because either financial requirements do not warrant the transaction costs or they have no assets as guarantees (Massambu *et al.*, 2007). The basic assumption in providing credit to farmers is that most rural farmers are poor, and that they have low rate of personal income and savings, which inhibit their ability to make any effective investment in agriculture. The agricultural credit helps to deal with financial constraints, which face the peasants. It also provides incentive for the peasant to adopt new technologies, which will accelerate agricultural development (Yaron, 1997).

Although the financial sector in Tanzania was liberalized, but it has brought negative impact to the rural farmers because the credit for input supply has collapsed (Massambu *et al.*, 2007). The study by Bee *et al.* (2007) observed limited accessibility to credit facilities and other forms of financial services which consequent affected their investment ability, one of the reasons being high interest rates charged by local banks. MITM (2007) reports that Kagera coffee buyers have access to only local banks at interest rate of 14% which seems to be higher compared to 5-8% interest rate charged to Ugandan coffee producers by local banks. Farmers lack access to bank and credit services has a significant bearing on the use of farm inputs by farmers. According to URT (2005) only 3% of farmers have access to

credit, due to several reasons such as did not know how to get credit (38%), did not know about credit generally (22%), or not available (19%).

URT (2005) shows that 80% of households are purchasing agricultural inputs mainly from the money they receive from that sale of their own farm products and other income generating activities. Due to difficulties in getting cash for input purchase farmers prefer to sell coffee to more than one buyer as the latter has different payment systems in order to have money when agro-inputs are needed. There are mainly two payment systems done by coffee buyers; PCBs practice "at-delivery payment" while some PCSs and farmers groups do instalment payment system (Mhando, 2005).

2.2.6 Extension services

Good extension services and effective networking systems influence farmers' response to crop production, marketing and development programs. Furthermore, crop management skills need to be learned whether formally or informally in order to improve the productivity of agricultural systems, improve the quality of agricultural produce, rise production and incomes of producers and improve the quality of the life especial of rural farm households. The URT (2005) shows that extension advice is mainly from government (93%) which reaches very few smallholder households.

The study by Bee *et al.* (2007) revealed that smallholders farmers have been affected most not only by removal of subsidies on agricultural inputs but also a reduction of public expenditure on extension services which increased the cost of production. The study also show that extension officers are insufficient i.e. number of farmers is not

proportion to that of extension workers because there are few workers compared to the farmers to serve. Only about 35% of the 4.8 million smallholders reported receiving extension messages during the 2002/03 season (URT, 2005). Another problem is that the extension workers especially livestock officers are no longer working for free (Bee *et al.*, 2007).

2.2.7 Standards in Tanzania coffee sector

The coffee industry in Tanzania benefits from support of many organizations. However, focus on sustainability standards among these organizations is very limited. In 2003 Tanzania Coffee Board (TCB) recognized the special needs of high quality coffee and implemented guidelines and licensing procedures for direct export of premium green coffee and organically produced coffee (TCB, 2007). Unfortunately, the issues of other sustainable certified coffee are yet commonly recognized in Tanzania, thus regulation hasn't make any specific consideration to Fairtrade certification standard. Given the rapid changes in the sustainability coffee market, this needs critical examination through setting specific rules necessary to allow for direct sales of sustainable coffee without undermining the auction system (Lazaro and Makindara, 2008).

Fairtrade standard and coffee has been clarified in section 1.3. Besides coffee, there are other agricultural produce which are traded through Fairtrade channel such as tea and flowers. Currently, in Tanzania there are 16 Fairtrade certified producers, among them six coffee producers' organisations, eight tea producers and two flower producers (FLO, 2008).

Organic certification in Tanzania started in early 2000s. Organic standards have certification body (TanCert), also the organic certified producers have their association which was establish in 2003. There is organic agriculture movement called Tanzania Organic Agriculture Movement (TOAM) started on 2005.

Utz certification started in Tanzania during the early 2000s. Currently, Utz certified coffee in the country is Arabica. There is one Utz-certified producer in Tanzania which is large-scale coffee plantation of more than 50 hectare under coffee. Adoption of the Utz standards and growth in sales of Utz Certified coffee from Tanzania has been slow compared to other East African countries. The share of Tanzania's Utz Certified coffee sales from African countries that export Utz Certified coffee was only 0.7 percent in 2005. By mid-2007, it was 2.8 percent (Lazaro and Makindara, 2008).

2.2.8 Fairtrade standard compliance experience from some of the East Africa coffee producing countries

2.2.8.1 Fairtrade standard in Kenya coffee sector

The coffee sub-sector in Kenya is one of the major employers and contributed about 5% of export revenues in 2003 (EPZA, 2005). Kenya mainly grows Arabica type of coffee which accounts for almost 100% of its national production. Robusta is also grown but accounts for less than 1% of the country's production. Coffee farming is mainly done by small-scale farmers who are estimated to be 700 000. Small-scale coffee growers are organized into co-operative societies who account for 60% while 40% is done by large scale farmers at plantation level. The total annual production

has been fluctuating widely due to climate as well as socio-economic factors. At the moment, production stands at about one million bags per year (EPZA, 2005).

For many years Fairtrade organisations have been doing transaction with other Kenyan products like handcrafts. In 2004, Kenya Fair Traders Inc. (KFT) which is an exporter/importer of exclusively Fair Trade certified Kenyan products, working with farmer cooperatives in Kenya introduced Fair Trade standards, for the first time in Kenya. KFT and Coffee Cooperatives have agreed to work together in initiating a pilot project to introduce Fair Trade to Kenyan coffee growers (Harris and Firl, 2004).

Kenya auction system which is supervised by Coffee Board of Kenya started to recognize Fair trade standard in 2006. After several years of hard work and the cooperation of two of Kenya's three auction processors and millers (SOCFINAF Co. Ltd. and Thika Coffee Mills Ltd.) Fairtrade Labeling Organizations International (FLO) and TransFair USA have successfully applied the Fair Trade system to the Kenyan auction structure, creating a reliable and transparent link between international markets and coffee cooperatives.

Business service industry (2006) report that recognition of Fairtrade standard in Kenyan auction structure ensures that subsistence coffee farmers throughout Kenya will be paid a fair price for their premium crop in a timely manner in addition to premiums for business and community development projects; and that they will be able to access U.S. industry partners that have long sought after their coffee as

Fairtrade certified. At the end of 2006, FLO International worked with two coffee producer organizations and five traders in Kenya (FLO, 2008).

2.2.8.2 Fairtrade standard in Uganda coffee sector

The coffee sub-sector in Uganda is one of the major employers and contributed about 30% of foreign exchange and 70% of income for rural farmers in 2004 (Bigirwa, 2005). Robusta coffee accounts for 94% of the output, while Arabica coffee accounts for the remaining 6% (EAFCA, 2007). About 25% of the entire country's population is dependent on coffee for their livelihood (EAFCA, 2007). Coffee growing is mainly done by small-scale farmers who are organized into co-operative societies who account for 97% while 3% is done by large scale farmers at plantation level (Sayer, 2002).

In Uganda, sustainable coffee (Fairtrade, and Organic) as well as specialty coffee make up less than 1% of Uganda's coffee exports. Total exports of Fairtrade, Organic and Specialty coffee in 2001/02 season, were 8000 bags (of 60kg). Coffee cooperatives are trading in Fairtrade coffees in small quantities through a marketing wing Union Export Service (UNEX). Twin Trading buys Bugisu Arabica at Fairtrade premium price through Bugisu Cooperative Union (Sayer, 2002). At the end of 2006, FLO International worked with eleven coffee producer organizations and one trader in Uganda (FLO, 2008).

Uganda auction system is yet to apply Fairtrade standard. Bigirwa (2005) reports that in Uganda there is no local promotion of fair trade coffees, which is also seems true in Tanzania one of the reason being that Fairtrade market is still small. Comparing

three East Africa coffee producing countries i.e. Tanzania, Kenya, and Uganda, FT market is more advanced in Kenya. One of the reasons being recognition of Fairtrade standard by the coffee board of Kenya, unlike Tanzania and Uganda where there is no recognition of FT standard by the coffee board. Also neither Uganda nor Tanzania has any FT movement, Kenya has association of Fair Traders (KFT) which helps to promote Fairtrade market, and this is also supported by high number of Kenyan traders dealing with coffee (i.e. eleven).

2.2.9 Review of Fairtrade impact studies

Several impact studies have carried in various parts worldwide, for example study by Bacon (2005), Ronchi (2002), Pariente (2000), Eberhart (2005) and Becchetti and Costantino (2006) to mention the few. Different conclusions have been made concerning participation of producers in Fairtrade business.

Bacon (2005) carried a study on a sample of Guatemalan coffee producers. The study showed with a two way Anova approach that access to FT certified markets has positive and significant effects on sale price. Pariente (2000) observed the positive impact of minimum price on coffee producers' security in the Cococafè cooperative in Costa Rica. The research documents a reduced price variability (and a minimum price higher than the world price) when local producers sell to FT market.

Eberhart (2005) carried a study of Bolivian coffee Fair Trade producers and the findings showed that the money offered by the FT buyer as premium reaches the poor and marginalised, and brought positive influence on the life situation of those benefiting from it. These findings are different from that of IIED (2000) in Tanzania

and Ghana cooperatives which observed that Fair trade impact was insignificant for the small farmers because the benefits are not reaching to the farmers rather it retained in the cooperative union to fund union services or community projects (IIED, 2000).

The FT impact study in Oaxaca, Mexico showed that at one side FT played its role as "business angel" providing financial and technical assistance and improving quality standards but in terms of livelihood improvement, there were no significant changes (Castro, 2001). Becchetti and Costantino (2006) used Tobit regression analysis to analyse the impact of Fair Trade (FT) affiliation on monetary and non monetary measures of well-being on a sample of Kenyan herbs farmers. The econometric findings document significant differences in terms of price satisfaction, monthly household food consumption, income satisfaction, dietary quality and child mortality for Fair Trade groups versus non FT groups.

Ronchi (2002) study examines the impact of ten years of Fair Trade in coffee in Costa Rica and reveals the importance of organizational development support for the stakeholders of the nine Costa Rican coffee co-operatives. The study found out that some Fair Trade partners, the ATOs in particular provide capacity building and support for cooperative union and its primary level co-operatives. The field work with producers showed that the principle non-financial impacts of Fair Trade on producers manifest themselves in the services rendered to them by their co-operatives.

CHAPTER THREE

3.0 METHODOLOGY

This chapter presents the description of the study area, study design, types and sources of data used, tools used for data collection i.e. interview schedule and checklist of questions, sample size and sampling techniques, analytical tools and techniques used in data analysis and conceptual framework of the study.

3.1 Description the Study Area

3.1.1 Mbinga district

3.1.1.1 Geographical location

The study was carried out in Mbinga district, which is among the five districts of Ruvuma region; others are Namtumbo, Songea Urban, Songea Rural and Tunduru. The district is located approximately between 10°05' and 12°05' South of Equator and between 34°05' and 35°05' East of Greenwich, in the South Western part of Ruvuma region (Fig.4). 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 (URT, 2002a). The district has an area of 11 396 square kilometres that is 17.8 percent of the total area of Ruvuma region (64 233 square kilometres). Administratively, the district is divided into six 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 (URT, 2002a).

3.1.1.2 Population and ethnicity

According to the National Population Census of 2002, Mbinga district population was 404 799, out of which 198 403 (49.1%) were men and 206 396 (50.9%) women, which depicts a slight difference between two genders (URT, 2002a). There are five 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% 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 (Mhando, 2005).

3.1.1.3 Rationale for choosing Mbinga district

Mbinga district was chosen because is one of high coffee producing areas not only in the region but also country wise, and there is Fairtrade certified farmers' organisation which operates in the area. This farmers' organisation has been certified since 2004/05 coffee season when 2001 Coffee Industry Act already came into function. Compared to Kilimanjaro, little has been researched and documented on Fair trade in coffee in Mbinga and how farmers have responded to this new niche market system.

3.1.2 Moshi rural district

3.1.2.1 Geographical location

The study was also carried out in Moshi Rural district, which is among the six districts in the Kilimanjaro region, others are Rombo, Mwanga, Same, Hai, and Moshi Urban. It is bordered to the north by the Rombo district, to the west by the Hai district, to the east by the Mwanga district and Kenya, and to the south by the Manyara region. The district is located approximately between 3°56' South and 37°44' North (Fig.4). Administratively, the district is divided into 31 wards, with 84 862 households (URT, 2002b).

3.1.2.2 Population and ethnicity

According to the 2002 Tanzania National Census, the population of the Moshi (R) district was 402 431, out of which 192 998 (47.9%) were men and 209 433 (52.1%) women (URT, 2002b). There are several ethic groups in the district but the major ethnic group which accounts more the 70% is the Chagga of the population. The Chagga's population depends on agriculture and livestock keeping (URT, 2002b). Coffee, a major cash crop, and bananas are inter-cropped as main crops. Other crops grown include maize, beans, sorghum, irish potatoes and yams. Vegetables and fruits are also grown. Rice is grown in the lowlands under irrigation (URT, 2002b).

3.1.2.3 Rationale for choosing Moshi rural district

Moshi rural district was chosen because is among the high coffee producing areas in the region. There are farmers' primary societies which have been Fairtrade certified operating in the district. These farmers' primary societies are members of farmers'

cooperative union which have been doing transactions with Fairtrade organizations since 1993/94 coffee season, therefore the union has experienced the impact of 1998 Coffee Industry Act as well as 2001 Coffee Industry Act which replaced the former act. Kilimanjaro region has been little researched and documented on Fair trade in coffee and how farmers have responded to this new niche market system since 2001 Coffee Industry Act came to function.

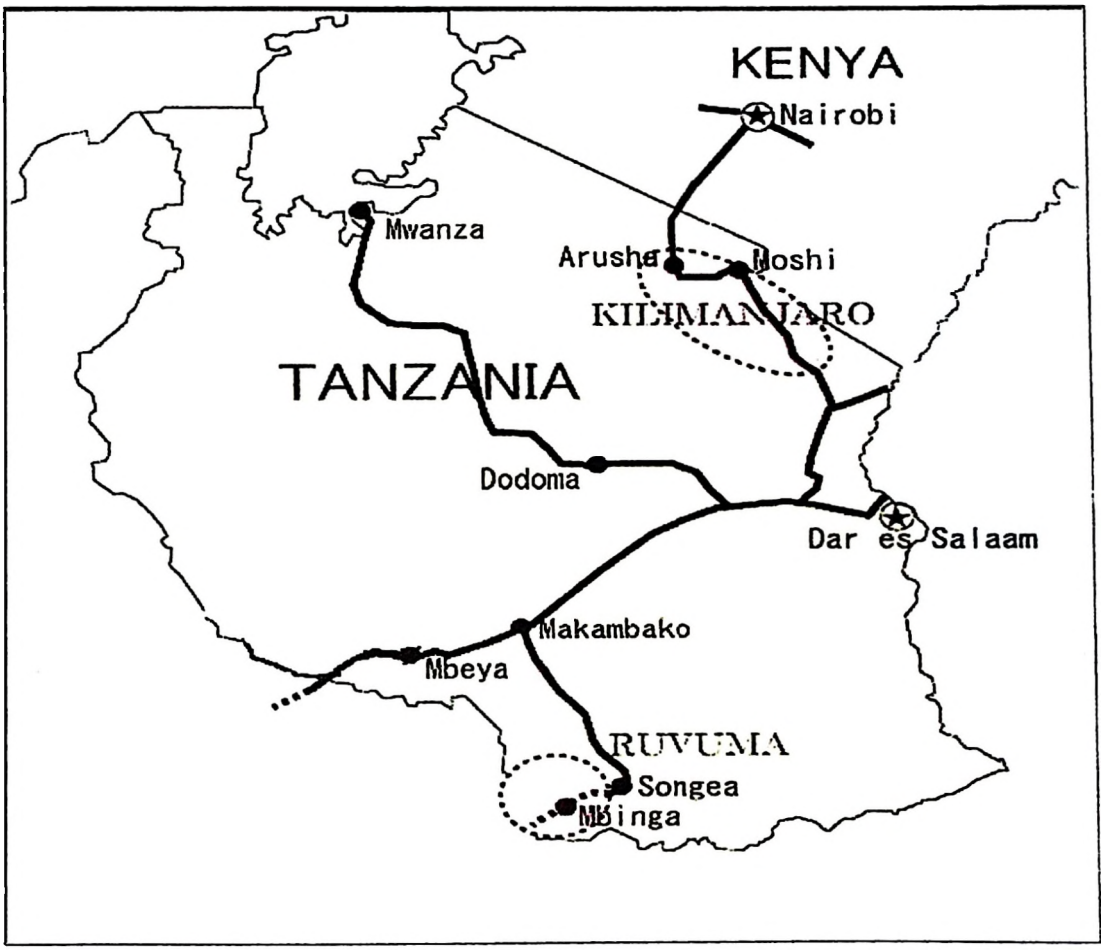


Figure 4: The Map of Tanzania showing location of sampled areas (Mbinga and Moshi (R) Districts)

Source: URT (2006)

3.2 Study design

Cross-sectional research design was employed, which enabled the researcher to study a cross section of a population at a single point in time (Bailey, 1994). This design is considered to be useful because of limitation of time and financial resources and also provides quick results.

Table 3: Distribution of respondents by wards and villages

Ward	Village(s)	Number of respondents
Mbinga district		
Mbuji	Minyau, Kibanga	9
Langito	Mkoa	7
Nyoni	Likwela, Kihulila, Kihereketi	9
Mkumbi	Lugari, Longa, Mkumbi	10
Mikaranga	Ilela	8
Ngima	Unango	9
Langito	Matuta	10
Maguu	Mapera	9
Sub-total		**71**
Moshi (R) district		
Kirua Vunjo	Kanji, Kanjikati, Nduoni	15
Mamba North	Mamba Kotera, Kokiriye	12
Kisambo	Mamba	11
Marangu West	Komalyangoe, Kiraracha	12
Marangu East	Mshiri, Ashira, Samanga	13
Kirua Vunjo East	Mero	14
Sub-total		**77**
Total		**148**

3.3 Sample selection

Multistage sampling was employed to obtain the appropriate study area, first purposive sampling was used to select wards and villages where Fair trade certified farmers' organisations operate, then random sampling was used to get total of 14 wards from which sample of 25 villages were selected. Random sampling was also used to get a sample of 148 coffee smallholder farmers composed of Fairtrade and non Fairtrade certified farmers (Table 3).

3.4 Sources of data and data collection

Primary data was collected from the small scale coffee farmers through household survey using interview schedule i.e. questionnaire (Appendix 7). Primary data was also collected through interview from key informants from KNCU, AKSCG, primary societies, Tanzania Coffee Board (TCB), agricultural extension workers, and village government officials using checklist of questions (Appendix 8). Secondary data was collected from KNCU, AKSCG, TCB, Sokoine National Agriculture Library (SNAL), and electronic sources such as internet search.

3.5 Statistical tools and analysis

Computer programs including Microsoft Excel, and Statistical Package for Social Science (SPSS) software were used to summarize and analyse the collected data. Descriptive analysis as well as inferential analysis was used. Chi-square test for independence, independent t-test were used as inferential statistics to examine the relationship between Fairtrade and non Fairtrade certified coffee farmers' socio-

economic characteristics, coffee yield, coffee production costs, and coffee net income.

3.5.1 Descriptive analysis

Descriptive statistical method was used to summarize, organize, and simplify the raw data in a form that is more manageable. Tables were used as the descriptive procedure, such as cross tabulation and frequency tables were used in describing the characteristics of the respondents such as socio-economic characteristics.

3.5.2 Chi-square analysis

The Chi-square test for independence was used to test whether or not there was relationship between socio-economic characteristics among the Fairtrade and non Fairtrade farmers.

3.5.3 T-test analysis

A t-test analysis which is inferential statistics was used to test the hypotheses at significance level of $P<0.05$ by comparing Fairtrade group and non- Fairtrade group. T test was used to test if there is significant difference in quantity of coffee produced between FT certified coffee farmers and non FT certified coffee farmers.

3.6 Conceptual framework

Generally, what is meant by 'impact' on the primary and secondary level organisations, include the effect of Fair Trade relations on their financial and organizational development. Impact of Fair Trade on producers considers financial

indicators for example income and, importantly, includes evidence on non financial benefits as identified by producers, referring to the conceptual framework in Fig. 5.

The total impact of Fair Trade can be traced down into four avenues: (i) The financial impact of the payment of a 'fair price' on producers and other disbursements of the Fair Trade premium and (ii) the financial and non-financial support given by Fair Trade organisations to producer organisations. These two avenues i.e. (i) and (ii) make up the 'direct impact' attributable to Fair Trade. The remaining two avenues look at what impact those producer organisations, in turn, have had on (iii) producers and on (iv) other organisations. It is assumed that there is only indirect (and possibly positive) impact on yields and quality (through agricultural training and higher income, thus increased possibility of purchasing inputs and hiring labour).

There is possibility of indirect impact through establishment of new links with wider trade networks; possibility of selling to other markets besides Fairtrade. Access to well-established and reliable market; technical assistance from fair trade importers; development of new networks of contacts among participants can be expected as an impact of Fair trade. It is anticipated that better planning for coffee production and household needs as guaranteed price reduces risk, all these positive impacts are discussed as benefits relating with FT participation by farmer organizations. Constraints relating with participation in FT by farmers organizations are traced through the whole process of selling coffee through FT market.

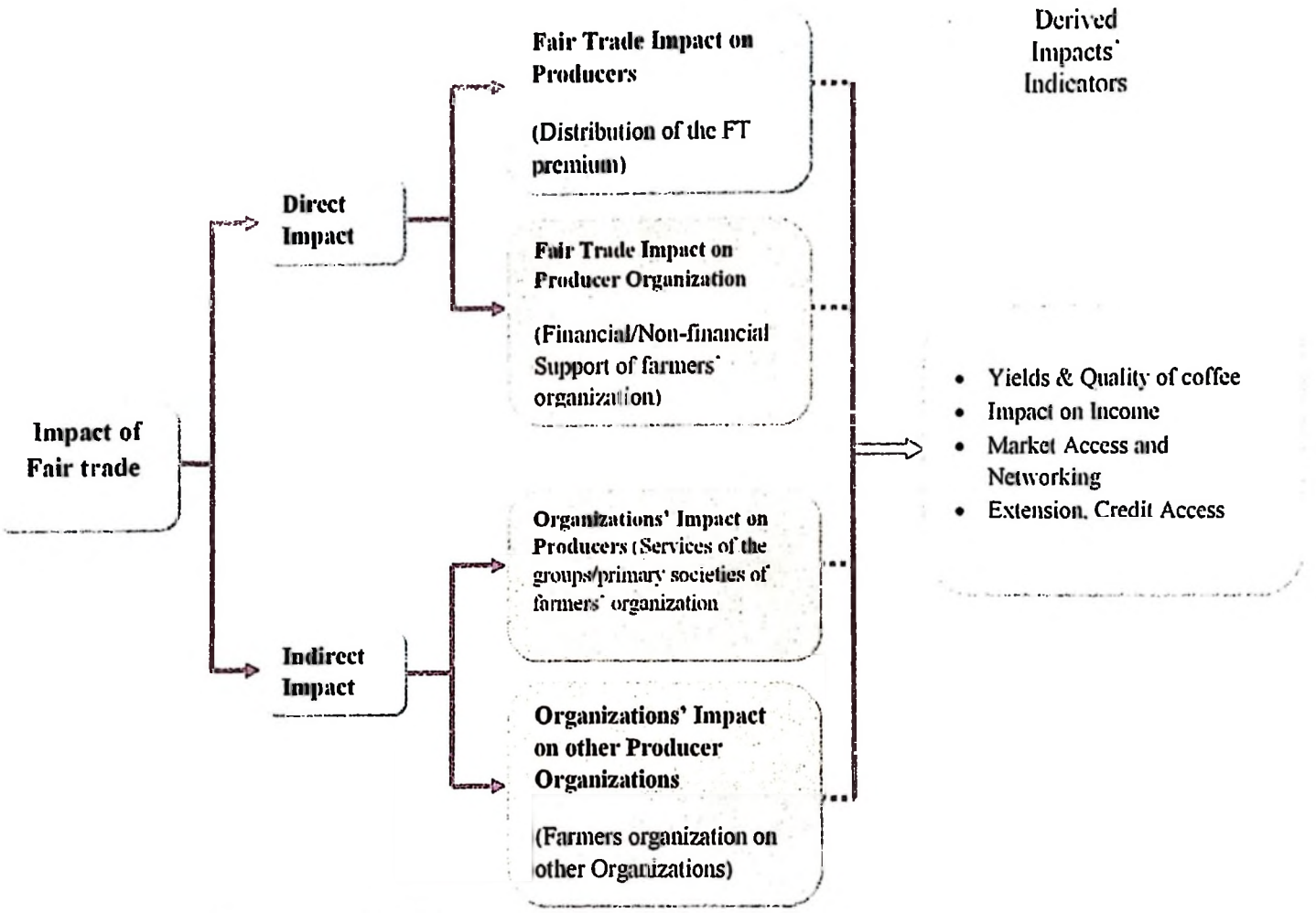


Figure 5: Conceptual framework: The Impact of Fairtrade standard; Source: Modified from Ronchi (2002)

CHAPTER FOUR

4.0 RESULTS AND DISCUSSION

This chapter explores some of the farmer' characteristics and institutional factors in relation with their participation in Fairtrade market. The characteristics include sex, education level, and economic activities. Other socio-economic characteristics include farmers' coffee production, marketing and income in the 2006/07 season. Institutional factors consider farmer' participation in farmers groups or agricultural marketing cooperative societies (farmers' networks). Institutional supports to the studied coffee farmers will be discussed, which include availability of credit services, market information availability, extension services and agricultural training services. The institution set-up of Fairtrade in the studied farmers' organisations which also includes distribution of FT premium is discussed. The last section of this chapter covers the benefits and constraints relating with participation in FT market by the farmers organizations.

4.1 Social-economic characteristics of the respondents

4.1.1 Sex

The sample of the surveyed respondents comprised of 76% men and 24% women (Table 4). The respondents interviewed were not necessarily the heads of the households, but the one who takes care of the coffee farms and dealing much with coffee marketing issues because they tend to have more information on the crop than others in the household. The low sample of female respondents reflects the tendency

of male dominance in the coffee sector especially during selling of the crop and buying of farm inputs.

Table 4: Sex of the respondents by Fairtrade certification status

Sex of the respondent	FT certified		Non FT certified		Total	
	n	%	n	%	n	%
Men	82	77	31	74	113	76
Women	24	23	11	26	35	24
Total	106	100	42	100	148	100

Chi-Square value =0.210 d.f=1 *Sig*-value= 0.671 (2-sided)

The Chi-square value of 0.21 at significance level of 0.671 (at $p<0.05$) shows that men and women have equal chance of participating in Fairtrade and possibly being certified to produce and sell their coffee according to the FT certification requirements. This observation is similar to findings of Beccheti and Constantino (2006) and Ronchi (2002) who did research in sample of Meru Herbs producers in Kenya and that of coffee farmers in Costa Rica respectively.

4.1.2 Education level

Education is considered to be an important factor which enables one's behavior to change. Education broadens horizons beyond habits and traditions of individuals encouraging involvement of an individual in development activities (Massambu *et al.*, 2007). Therefore through education an individual becomes more critically aware of the scope of socio-economical change or any other change in the society. Education is an important ingredient for faster socio-economic development in the community (Bee *et al.*, 2007).

The results in Table 5 indicate that 82% of the respondents interviewed have primary education level. Coffee production is one of the income generating activities, as such provide an opportunity to farmers to earn enough money to send their children to school at least in the level of attaining primary education, especially when the coffee harvest and prices are good.

Table 5: Education level of the respondent by Fairtrade certification status

Education level	FT certified		Non FT certified		Total	
	n	%	n	%	n	%
Primary	81	76	40	95	121	82
Secondary	15	14	2	5	17	12
College	9	9	0	0	9	6
University	1	1	0	0	1	1
Total	106	100	42	100	126	100

Chi-Square value =7.57 d.f =3 *Sig*-value= 0.56 (2-sided)

The Chi-square value of 7.57 at significance level of 0.56 (at $p<0.05$) implies that formal education level does not influence the interviewed farmers to participate in Fairtrade and being certified. Any person regardless of his/her formal education level can participate in Fairtrade and acquire certification. FT certified organisations provide agricultural training and education to assist farmers to comply with FT requirements.

4.1.3 Economic activities

The farmers were asked to mention their other economic activities besides coffee farming. Table 6 shows that, 78% of farmers' responses who recorded coffee as their major income generating crop also keep livestock, such as cattle, goats, sheep, pigs and birds. These results are agree with that of Temu (1999) and Mhando (2005) who observed that more than seventy percent of coffee farmers also keep livestock, and acknowledged as their important non-crop income generating activity.

Table 6: Economic activities of the respondent by Fairtrade certification status

Economic activity	FT certified		Non FT certified		Total	
	n	%	n	%	n	%
Livestock keeping	115	78	41	79	146	78
Business	22	16	9	17	31	16
Self employment	6	4	1	2	7	4
Local govt. employment	3	2	1	2	4	2
Total response	146	100	52	100	188	100

Note: The percentages based on the multiple responses of the cases

Besides coffee farming, 16% of the producers' responses indicate that engage themselves in businesses such as selling food crops, forestry products and livestock, and food vending. Mhando (2005) noted that after economic liberalization in the coffee industry in 1994/5, diversity in income generating activities besides coffee farming has been one of the coffee farmers' coping strategies in reducing risks incase of coffee price fluctuations in the world market.

4.1.4 Coffee production

Table 7 shows that an average total farm size is 6.1 acres for FT farmers and 5.4 acres for non FT farmers. The t test value shows that the difference in total farm size owned by the coffee farmers between two groups of farmers is not significant because acquiring of land does not consider FT certification of the farmer. Land ownership is through formal titles/deeds under customary rights (URT, 2006).

For both FT and non FT farmers, the average farm size allocated for coffee farming is about 2 acres, accounting for an average of 64% and 54% of the total farm area per farmer for FT and non FT producer respectively (Table 7). FT coffee farmers have allocated higher percentage of farm land for coffee farming compared to the non FT farmers. According to the t test results, the difference in farm size allocated for coffee farming is significant because rational farmers tend to allocate more land to the plots which gives higher returns.

Table 7 shows that the average number of coffee tree harvested per acre in 2006/07 season is 652 and 516 which produced 288 kg and 280 kg of parchment coffee for FT and non FT farmers respectively. The average coffee production (parchment) per producer in 2006/07 season is 532 kg for FT farmers and 527 kg for non FT farmers. The results from t test shows that the difference in coffee yield between the FT and non FT farmers is not significant as some of the FT farmers still harvest old coffee trees which have low yield per tree. This situation will start to reverse soon especially at KNCU as currently there are quality improvement and coffee seedling projects which strive to revive the crop by supplying coffee seedling.

Table 7: Land resource and coffee production in 2006/07 season

Characteristics	Descriptive	FT certified	Non FT certified	t-statistics value
Total area for crop production (acre)	N	106	42	0.728^{ns}
	Minimum	0.3	0.3	
	Maximum	5.0	12	
	Mean	6.1	5.4	
	Std. Deviation	1.1	0.62	
Area under coffee (acre)	N	106	42	0.456^{ns}
	Minimum	0.25	0.25	
	Maximum	5.5	4.5	
	Mean	1.9	2	
	Std. Deviation	0.997	0.9	
Percentage of coffee area (%)	N	106	42	0.032^{s}
	Minimum	12.5	17	
	Maximum	100	100	
	Mean	64	54	
	Std. Deviation	3.1	6.1	
Coffee trees harvested/acre	N	106	42	0.11^{ns}
	Minimum	24	42	
	Maximum	3500	2300	
	Mean	652	516	
	Std. Deviation	540	548	
Coffee yield (kg/acre)	N	106	42	0.231^{ns}
	Minimum	5	62	
	Maximum	1755	1000	
	Mean	288	280	
	Std. Deviation	300	249	
Total coffee production per producer (kg)	N	106	42	0.74^{ns}
	Minimum	5	40	
	Maximum	5400	1450	
	Mean	532	527	
	Std. Deviation	866	426	

Note: ns: not significant at P<0.05 s: significant at P<0.05

4.1.5 Coffee marketing

Smallholder coffee farmers generally have more than one marketing channel (Table 8) due to the changes caused by market liberalization and perfect competition between cooperatives unions and private traders in the coffee industry.

Table 8: Number of coffee buyers in 2006/07 season

Number of coffee buyers	FT certified		Non FT certified		Total	
	n	%	n	%	n	%
1	79	74	17	41	96	65
2	21	20	11	26	32	22
3	6	6	14	33	20	13
Total	106	100	42	100	148	100

Chi-Square value =22.9 d.f =2 *Sig*-value= 0.000 (2-sided)

It was observed that 20% and 6% of FT producers sold to two and three coffee buyers respectively while 26% and 33% of non FT producers sold to two and three coffee buyers respectively (Table 8). Three types of coffee buyers were observed during the study, these include primary cooperative societies (PCSs), private coffee buyers (PCBs), and farmers groups (either organised by Kilicafe, TaCRI, or other informal groups).

The Chi-value of 22.9 and Sig. value of 0.000 entails that FT certification status has influence on farmer's decision on where to sell and on what quantity. FT farmers are obliged to sell to their organisations as per contract signed between the farmers' organization and the farmer; this is verified by 44% and 32% of FT farmers who sold their coffee to FT certified market i.e. primary cooperative societies (PCSs) and Kilicafe respectively. It was also found that FT farmers sold certain amount of FT certified coffee to other uncertified coffee buyers because FT market can not absorb all of the coffee produced.

Table 9: Coffee buyers in 2006/07 season

Buyer	FT certified		Non FT certified		Total	
	n	%	n	%	n	%
Primary Cooperative Society (PCS)	61	44	15	27	76	39
Farmers Association (Kilicafe)	44	32	11	20	55	28
Private Coffee Buyers (PCBs)	31	22	30	53	61	31
Farmers group	2	2	0	0	2	2
Total	138	100	56	100	194	100

Note: The percentages based on the multiple responses of the cases

Table 9 shows that 53% of non FT farmers sold coffee to private coffee buyer (PCBs), one of the mentioned reasons being that PCBs pay in cash so they are ensured to get money in times of immediate need. None of the sampled non FT farmers did sell to the farmers groups in 2006/07 season, because they are not members of any farmers groups, also these farmers revealed that some of the farmers groups are not allowed to take coffee form non members to ensure good coffee quality of their group.

It was observed that 27% and 20% of sampled non FT farmers sold to PCSs and Kilicafe respectively which indicates that even non FT farmers had access to FT market in the 2006/07 season (Table 9). Coffee from non FT farmers is traded through conventional marketing channel. When asked reasons for selling to PCS and farmers association, farmers revealed that the benefits of selling to private traders are short term while benefits of selling to the PCSs and Kilicafe are long term. One of

the benefits considered as long term was that they would be able to recover unpaid installments, because PCSs and Kilicafe pay in installments (at time of cherry/parchment delivery and later on during the season). One of the benefits regarded as short term was the cash payment offered by PCBs which is done during coffee delivery.

Table 10: Coffee quantity delivered to the buyers in 2006/07 season (kg)

Buyer	Estimate	FT certified	Non FT certified
Primary Cooperative Society	N	61	15
	Minimum	5	40
	Maximum	600	500
	Mean	100	159
Farmers association (Kilicafe)	N	44	11
	Minimum	9.6	12
	Maximum	3000	600
	Mean	643	133
Private Coffee Buyers (PCBs)	N	31	30
	Minimum	16	50
	Maximum	3000	1000
	Mean	516	274
Farmers group	N	2	0
		100	

Table 10 shows that large quantity of coffee (mean of 643 kg) was delivered to the farmers association for FT certified farmers at an average price of 1765/= TZS. FT certified farmers' traded large quantity of the coffee through farmers association because of the higher price offered to them by the buyer. For the case of non FT farmers large quantity of the produced coffee (mean of 274 kg) was sold to private coffee buyers at an average price of 1450/= TZS. One of the reasons mentioned by

non FT farmers which led them to deliver large quantity of produced coffee to PCBs was cash payment, even though PCS were offering higher average price of 1690/= TZS compared to PCBs.

Table 11: Coffee prices received from coffee buyers in 2006/07 season (TZS/kg)

Buyer	Estimate	FT certified	Non FT certified
Primary	N	61	15
Cooperative	Minimum	1000	1400
Society	Maximum	2500	1900
	Mean	1713	1690
Farmers	N	44	11
association	Minimum	900	1000
(Kilicafe)	Maximum	4375	1500
	Mean	1765	1300
Private Coffee	N	31	30
Buyers (PCBs)	Minimum	800	1000
	Maximum	2000	2000
	Mean	1518	1450
Farmers group	N	2	
		1200	

Table 11 shows that different buyers offered different coffee prices to the farmers. Being in a free market economy, coffee prices are mainly controlled by market forces. Coffee as an export crop, normally coffee prices (specifically Arabica) depends on the rates at New York Stock Exchange (NYC). Private coffee buyers pay

the farmers in cash by considering operational and management costs. PCS, farmers association, and some of farmers groups pay in terms of instalments. Money for first payment (at point of coffee delivery) is normally a bank loan because is done at the beginning of the season before coffee selling. Payment at point of delivery and successive payments, coffee prices are normally set and agreed at the general assembly by looking on the average production costs in that particular season, all operational and management costs like transportation costs and storage costs, as well as bank loan interest. For Fairtrade coffee, Fairtrade minimum price and premium is considered unlike to the normal prices paid to conventional farmers. For farmers who took agrochemicals and/or equipments for example pulpery machines, in term of loan certain agreed percent is deducted from their coffee income.

4.1.6 Coffee income

Gross income is determined by both quantity sold and the selling price. The average gross coffee income received by sampled FT farmer is 410 493/= TZS and 386 077/= TZS for sampled non FT farmers (Table 12). T statistics value shows that there is no significant difference in coffee gross income as well as net income between sampled FT farmers and sampled non FT farmers (Table 12).

The reason for insignificant difference in returns between the two groups is that; normally operational and management costs of the farmers organisations such as certification costs are deducted from the price paid by the certified organisations i.e. KNCU and AKSCG to their members, this lower the amount of money paid to the farmer. For example there are farmers groups which bought pulpery machines in loan, and they are supposed to pay in installment in every season from their coffee

sales until the machine' costs are recovered, these costs are considered as part of the variable cost for every member. Also not all coffee delivered to FT certified organisations receive FT premium price because of the limitations of the FT coffee market. The small size of the market, only 0.5% of coffee in the United States which is one of the main destinations for FT coffee is FT certified (Oveland, 2005).

Table 12: Income from coffee by area (acreage) over 2006/07 season

Characteristics	Estimate	FT certified	Non FT certified	t-statistics value
Gross income	N	106	42	0.9^{ns}
	Minimum	5000	117 000	
	Maximum	365 9040	1 464 500	
	Mean	410 493	386 077	
	Std. Deviation	596 726	285 350	
Production costs*	N	106	42	0.1^{ns}
	Minimum	0	0	
	Maximum	108 960	150 675	
	Mean	74 065	98 258	
	Std. Deviation	30 629	40 527	
Net income	N	106	42	0.4^{ns}
	Minimum	-699 360	71 000	
	Maximum	2 345 938	1 313 825	
	Mean	336 428	287 819	
	Std. Deviation	177 975	219 582	
Net income as % of Gross income		82	75	

Note: ns: not significant at P<0.05

* Only Variable costs over the season: total costs for agro-chemicals, agro-equipment, hiring equipment, repairing equipment, transportation of equipment and coffee and labour hiring

Gross income= Selling Price (SP) × Quantity sold (kg)

Production costs= Quantity of agro-input used × Unit Price

Net income= Gross income – Production costs

Net income as % of Gross income= Net income/Gross income

Often a cooperative cannot sell its entire stock of FT certified coffee, as there is no market for it, for example at KNCU approximately only 20% of total collection is sold in Fairtrade market due to the fact that FT importers can not absorb all the coffee produced as per FT requirements (Raynolds, 2002b). Following the mentioned situation, the impact of FT premium price on FT farmer's financial income is reduced. The rest of FT coffee is sold in normal conventional markets.

Table 12 shows 75% and 82% of net income as percentage of gross income for non FT and FT farmers respectively which entails that sampled non FT farmers incurred higher average production costs per season i.e. 98 258/= TZS compared to 74 065/= TZS of sampled FT farmers.

High production costs lower the net income received by the farmer. It was observed that production costs for non FT farmers are raised by high costs of agro chemicals (no restriction in quantity to apply) and equipment, and other transaction costs like time spent to process coffee manually, and in finding buyers as well as price negotiations as they operate individually i.e. they are not organised in groups as FT farmers.

4.1.7 Participation in farmers' organizations

Farmers' organization included in the study includes farmers groups and agricultural marketing cooperative societies. Burkey (1992) defined a farmers' group as a composition of men and/or women who voluntarily come together to pursue a common interest related to individual or group improvement in the spheres of economic, political and/or social development. Farmers groups can play an

instrumental role in the generation of appropriate solutions to small farmers' problems. Several studies such as that of Mattee and Lassalle (1994) show that group formation may be a source of empowerment and such groups may be strong enough to be capable of influencing policy decision and promoting their own development on a self-reliance basis. Giovannucci (2006) also stress that farmer organizations are pivotal for any sound organic strategy especially in developing countries.

Agricultural marketing cooperative societies are voluntary business organisations established by its members' patrons to market farm products collectively for their benefits (Bakken and Schaars, 1983 cited by Bee *et al.* (2007)). Agricultural marketing society is governed according to democratic principles on saving apportioned to their members on the basis of their patronage. The members are owners, operators and contributors of commodities handled, are direct beneficiaries of savings that may accrue, no intermediaries' stands to profit at the expense of members (Bee *et al.*, 2007).

An individual farmer is comparatively powerless against the market, and s/he is unable to obtain economies of scale by her/his own efforts. Therefore by marketing the produce collectively together with other producers there would be some control over the flow of some commodities into the market, which would result into higher prices. Mhando (2005) found out that the Matengo coffee growers thought of pulling their resources together by initiating organisation that will minimize the costs of transactions, due to the experience they acquired through selling their produce individually to the middlemen, which they found exploitative, expensive and

unprofitable. Therefore agricultural marketing cooperative societies were established with the aim of assisting coffee growers to reap the trade profits that had, for sometime, been monopolized by the Asian traders.

Majority of sampled non FT certified producers i.e. 60% were not involving in neither farmers' groups nor agricultural marketing cooperative societies. There are coffee farmers who participating in both farmers' group and agricultural marketing cooperative society, this segment was approximately to be 25%, who all happen to be FT certified producers. Participation in both farmers group and cooperative society helps the farmer to acquire double benefits, such agricultural training and marketing services, in some groups they get farm inputs in affordable price or in credit.

Table 13: Participation in farmers' organisations by Fairtrade certification status

Participation in farmers organisations	FT certified		Non FT certified		Total	
	n	%	n	%	n	%
Group	45	42	12	40	57	38
PCS	35	33	0	0	35	24
Both	26	25	0	0	26	18
None	0	0	30	60	30	20
Total	106	100	42	100	148	100

4.2 Institutional support to coffee industry

4.2.1 Agricultural financial services

Table 14 shows that 80% of sampled FT and 67% of sampled non FT farmers had access to credit in 2006/07 season. Some of the schemes providing loans to the farmers for several purposes include SACCOS, SEDA, FINCA, and PRIDE. It was observed that the association of farmers groups (AKSCG) and farmers' cooperative union (KNCU) don't provide credit to its farmers rather do facilitate their farmer groups to have an access to bank loan. This observation is similar to that of Ronchi (2002) and Tuvhag (2006) in Costa Rican coffee cooperatives certified by Fairtrade.

Table 14: Accessibility to credit by Fairtrade certification

Accessibility to credit	FT certified		Non FT certified		Total	
	n	%	n	%	n	%
Yes	85	80	28	67	113	76
No	21	20	14	33	35	24
Total	106	100	42	100	148	100

Chi-Square value =4.24 d.f=1 *Sig*-value= 0.065 (1-sided)

The Chi value of 4.24 and *Sig.* value of 0.065 entails that both FT and non FT farmers have accessibility to credit. The impact of financial sector liberalization has brought the collapse of financial services in rural areas especially credit for input supply. The study by Bee *et al.* (2007) noted limited accessibility to credit facilities and other forms of financial services. This situation affects ability to invest in more productive ventures.

Table 15: Purpose of borrowing money by Fairtrade certification status

Purpose of borrowing money	FT certified		Non FT certified		Total	
	n	%	n	%	n	%
Agriculture	50	47	10	24	60	41
Non-agriculture	56	63	32	76	88	59
Total	106	100	42	100	148	100

It was observed that 47% and 24% of interviewed FT farmers and non FT farmers allocate the borrowed money in agriculture respectively. This observation indicates that more than half of the borrowed money was allocated in non-agriculture activities such as business, education, and housing (Table 15). The difference in money allocation in certain venture depends on the returns and risks associated with that respective venture. Guaranteed FT minimum price and coffee market offered to the FT farmers by their organisations, mentioned as some of the reasons which made FT farmers to allocate more money in agriculture compared to non FT farmers.

4.2.2 Agricultural inputs availability

Investment in coffee production is a year around activities that require the use of agro-chemicals as well as farm implements for production and primary processing. Before coffee industry liberalization in 1993, 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, 2002a).

The liberalization policy removed the chances for farmers to obtain inputs credits on loan because the government couldn't manage to supply inputs to the farmers cooperatives. Consequently, farmers are now supposed to purchase inputs on cash, a situation that has made them, fail to obtain inputs because the prices are not affordable by most of the farmers in the villages (Mhando, 2005). Therefore farmers found themselves difficult to manage their coffee plots and support coffee production.

Table 16: Source of farm inputs by Fairtrade certification status

Source of farm inputs	FT certified		Non FT certified		Total	
	n	%	n	%	n	%
Hawker	2	1	24	26	26	10
Stockiest	77	42	66	72	143	51
Stockiest (voucher)	98	53	0	0	98	36
Private company	7	4	2	2	9	3
Total response	184	100	47	100	271	100

Note: The percentages based on the multiple responses of the cases

During the interviews of this study, coffee farmers were complaining about the unavailability and high cost of agro-chemical which made them to manage some of the coffee plots or reduce agro-chemical use. In the studied areas, it was observed that the major sources of farm inputs are stockiest and hawkers (Table 16). Respondents had different views concerning these sources of farm inputs, saying that the inputs are sold at very high costs; inputs are not of good quality and are not available when farmers need inputs (insufficient).

KNCU no longer advances inputs such as fertilizers as it has no guarantee that farmers will sell their coffee to their KNCU member society (KNCU, 2006). This situation is different from that of other certified farmers cooperative unions such as Coocafe of Costa Rica where by Ronchi (2005) reported that farmers cooperative was providing agricultural inputs to their members. At AKSCG, farmers acquire farm inputs from stockiest using voucher from the farmers association. This system is known as coffee inputs voucher scheme which helps the members to acquire agricultural inputs in more reliable manner, though the members are still complaining that the inputs are expensive.

4.2.2.1 Coffee Inputs Voucher Scheme (CIVS) at AKSCG

The reason for initiation of CIVS at AKSCG was like that led to initiation of National Coffee Inputs Voucher Scheme (NCIV). The CIVS aims at assisting farmers to obtain inputs and increase productivity. The decision to use CIVS was discussed and agreed by the association' general assembly which also involves some representatives from farmers. In short, it was initiated after realizing that even if paid the money after selling coffee, farmers could not manage to budget their income and purchase inputs for the following production season. According to AKSCG research, it was found that after farmers being paid money from coffee selling, the farmers use the money to do other activities and ignore reserving some money to buy inputs for the coming production season. The CIVS operates in such a way that, when coffee farmers sell their coffee 100/= TZS 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 CIVS is done by AKSCG, who instead, will

present a voucher that is equivalent to the amount of coffee sold by farmers. The mechanism of the CIVS works in such a way that the CIVS keeps farmers' money, from which the registered stockiest will deduct costs of inputs given to farmers.

4.2.3 Agricultural technical advice (Extension services)

The general purpose of agricultural technical advice in to improve the productivity of agricultural systems, improve the quality of agricultural produce, rise production and incomes of producers and improve the quality of the life of rural farm households (Bee *et al.*, 2007). Results from this study revealed that 89% of the sampled FT producers and 48% of non FT producers got agricultural technical advice concerning coffee production within past three seasons (Table 17). Of whom 85% FT farmers and 45% non FT farmers received the advice from government and private extension officers (Table 18).

Table 17: Accessibility of agricultural technical advice by Fairtrade certification status

Received agricultural technical advice	FT certified		Non FT certified		Total	
	n	%	n	%	n	%
Yes	94	89	20	48	114	77
No	12	11	22	42	34	23
Total	106	100	42	100	148	100

Chi-Square value =28.7 d.f=1 *Sig*-value= 0.000 (2-sided)

The Chi-value of 28.7 at *Sig.* value of 0.000 implies that participating in FT has an influence for the producer to receive technical advice in the study areas. Fairtrade certified organisations studied have routine of providing agricultural advices to their

members annually. At AKSCG they have technical advisors, and at KNCU they have extension officers to offer technical advice to their members. During interview, respondents declared that they share the information with others, this is verified by 13% of both FT and non FT farmers who received the advice from there fellow producers (neighbors) (Table 18).

Table 18: Source of agricultural technical advice by Fairtrade certification

Source of agricultural technical advice	FT certified		Non FT certified		Total	
	n	%	n	%	n	%
Extension officers (government[1]& private[2])	80	85	9	45	89	78
Neighbor	5	5	10	50	15	13
Private agricultural technical advisor[3]	9	10	0	0	9	8
TaCRI	0	0	1	5	1	1
Total	94	100	20	100	114	100

Note: [1] Government extension officers responsible to the District Agriculture and Livestock Development Office

[2] Private extension officers are the one who have trained by farmers organisation (KNCU or AKSCG) and they are responsible to the organisation.

[3]Private agricultural technical advisors are the stockiest who offer some advice to the farmer concerning the agro-chemical(s) bought at his/her shop

4.2.4 Agricultural training

Farmer training is essentially an agricultural extension education. Jones and Rolls (1997) defined Agricultural training as educational service for training and influencing farmers (and their families) to adopt improved practices in crop and livestock production. Training helps to improve farmers' quality management skills of crop and livestock production. Giovannucci (2006) points out that agricultural training is important to strengthen a farmer's knowledge in particularly in developing countries' agriculture.

Table 19: Attending agricultural training seminar by Fairtrade certification status

Attending agricultural training seminar	FT certified		Non FT certified		Total	
	n	%	n	%	n	%
Yes	73	69	18	43	91	62
No	33	31	24	57	57	38
Total	106	100	42	100	148	100

Chi-Square value =8.59 d.f =1 *Sig*-value= 0.003 (1-sided)

It was observed that 69% of sampled FT farmers and 43% of sampled non FT farmers attended agricultural training seminars within the past three seasons (Table 19). Source of agricultural seminars for the respondents has been District Agriculture and Livestock Development Office through its extension officers, KNCU through Primary Cooperative Societies, AKSCG through Technoserve, and TaCRI (Table 20).

The Chi-value of 8.59 and *Sig.* value of 0.003 entails that participating in FT has positive influence for the producer to attend agricultural training seminars in the study areas. AKSCG (through Technoserve) and KNCU provide training seminars to equip their members with necessary skills and knowledge concerning with improvement of coffee production and processing in order to produce end product of good quality so as to acquire higher prices in the market. More explanation on training is discussed in FT impact section.

Table 20: Source of agricultural training seminar by Fairtrade certification status

Source of agricultural training seminar	FT certified		Non FT certified		Total	
	n	%	n	%	n	%
Govt.extension officers	18	18	19	95	37	31
PCS	20	20	0	0	20	17
Technoserve	52	53	0	0	52	44
TaCRI	9	9	1	5	10	8
Total	99	100	20	100	119	100

Note: The percentages based on the multiple responses of the cases

Table 21 shows that proper coffee farm practices topic attended by many farmers compared to other topics for both FT certified (54%) and non FT certified (60%) coffee producers. This may help coffee farmers to improve their farm practices hence the improved yield. It was observed that marketing skills are not delivered in these seminars. Marketing is the important area to be stressed well since many farmers' organisations need the business skills to negotiate the various aspects of marketing. Public and private institutions' support may help to organize an apex body or a

network of organizations that can then establish a business unit and be fortified with professional support and training in order to develop scale economies.

Table 21: Topics of the agricultural training seminar by Fairtrade certification status

Topic of the training seminar	FT certified		Non FT certified		Total	
	n	%	n	%	n	%
Use of agro-inputs	14	14	2	10	16	13
Preparation of disease-resistant coffee seedlings	4	4	2	10	6	5
Proper coffee farm practices	53	54	12	60	65	55
Mulching	2	2	1	5	3	2
Preparation and use of botanicals	8	8	2	10	10	8
Construction of terraces	3	3	1	5	4	3
Organic farming practices	8	8	0	0	8	7
FLO requirements	8	8	0	0	8	7
Total response	99	100	20	100	119	100

Note: The percentages based on the multiple responses of the cases

4.2.5 Market Information accessibility

Table 22 shows that 79% of sampled FT and 52% of sampled non FT farmers have access to market information prior selling their produce, such information include where to sell i.e. coffee buyer, on what quantity as well as on which coffee prices. Market information accessibility is determined by the availability of that information.

The study by Bee *et al.* (2007) on agriculture marketing revealed the lack of elaborated information network to farmers. Farmers are in need of marketing information but are not able to obtain this information. The prices and demand (and supply) of produce at particular location is not known in advance. Therefore, from farmers' perspective, the decision making process on where to sell and at which price is made with a lot of uncertainties and in many cases culminates in farmers getting low profit and or losses.

Table 22: Accessibility to market information by Fairtrade certification status

Accessibility to market information	FT certified		Non FT certified		Total	
	n	%	n	%	n	%
Yes	84	79	22	52	106	72
No	22	21	20	48	42	28
Total	106	100	42	100	148	100

The interviewed respondent was also asked if s/he has heard about Fairtrade market, and if yes, s/he was supposed to explain what Fairtrade means. For the answer to prove if the respondent knows well about Fairtrade the following information was considered; Fairtrade minimum price, Fairtrade premium, and Fairtrade standard requirements. If the respondent seems to be aware about at least one of the above mentioned aspects about FT, then it was considered that s/he is aware about FT. It was observed that 39% of sampled FT and 10% of sampled non FT farmers are aware about Fairtrade (Table 23).

Table 23: Awareness about Fairtrade by Fairtrade certification status

Know about Fairtrade	FT certified		Non FT certified		Total	
	n	%	n	%	n	%
Yes	41	39	4	10	45	30
No	65	61	38	90	103	70
Total	106	100	42	100	148	100

Chi-Square value =12.08 d.f =1 *Sig*-value= 0.001 (1-sided)

Non FT farmers know about Fairtrade from their fellow farmers who participate in Fairtrade. Awareness about Fairtrade to FT farmers is not satisfactory; one of the reasons mentioned was that farmers are busy with other activities so they fail to attend seminars concerning Fairtrade.

More than fifty percent of the interviewed FT farmers know that they are selling coffee to their organisations, but they don't have clear picture of Fairtrade which their organisation is involved with especially KNCU members. Raynolds (2002a) observed that where Fair Trade premium money are retained at the union level, like the case of KNCU, farmers are unlikely to be aware about Fair Trade, networks and the premiums or price floors offered by the Fairtrade buyers and Alternative Trade Organizations (ATOs). Therefore it is necessary for the premium to be distributed to the respective farmers' societies so that the members may know where does premium money come from, and could ask more about the FT market hence improve their awareness about Fairtrade.

4.3 Institutional set-up of Fairtrade in the studied organisations

Fairtrade is a set of business initiatives that are run according to certain objectives and criteria. At the same time it is an international social movement (IIED, 2000; Develtere and Pollet, 2005). Fairtrade Labeling Organisation (FLO) is the umbrella organisation which was founded in 1997 for the Fairtrade movement. In order to reach small-scale coffee farmers, FLO works with democratically organised producer organisations that are seen as 'able to contribute to the social and economic development of their members and their communities' (FLO, 2008), and have therefore been accepted by the organisation. In this research two Fairtrade certified coffee producer organisations were studied, that are: Kilimanjaro Native Cooperative Union (KNCU) and Association of Kilimanjaro Specialty Coffee Growers (AKSCG). These are two different farmers' organisations; KNCU is a union of farmers' primary cooperative societies while AKSCG is an association of farmers' groups. Both organisations have been certified by FLO to sell washed Arabica, and both deal with smallholder producers in Tanzania.

4.3.1 Association of Kilimanjaro Specialty Coffee Growers (AKSCG)

The Association of Kilimanjaro Specialty Coffee Growers is a Tanzanian coffee smallholder association that was launched in 2001 by 10 groups, and Kilicafe is its brand name. Up to November 2007 the association had 117 groups, with about 10 000 smallholder farmers in three Arabica-growing chapters; North chapter (Kilimanjaro, Arusha and Manyara), Mbinga chapter and Mbeya chapter. The association is networking and executing all activities in supporting coffee producers particularly in three dimensions; raising and promoting better coffee quality, securing

access and obtaining finances (credit facilities) and securing and linking to better paid coffee markets.

AKSCG is a Fairtrade certified producer and exporter. Out of 10 000 smallholder farmers about 8 000 farmers from Mbinga chapter (46 groups), Mbeya chapter (19 groups) and North chapter (10 groups) have been FT certified. Coffee of premium quality from any FT certified farmers groups have equal chances to be selected by FLO buyer in the respective coffee season. AKSCG was joined and registered to Fairtrade Labeling Organization (FLO) since 27 September 2004. Since then, AKSCG as well as its farmers groups have been regularly inspected and complying with FLO-Cert certification scheme's regulations. During inspection, few randomly picked FT farmers groups are chosen. Up to October 2007, AKSCG has acquired Café Practice verification after being inspected by Starbucks in Southern Highlands region particularly in Mbinga Chapter while Mbeya and North chapters were not yet verified. Starbucks is one of the coffee roasters which sell Fairtrade labeled products.

Up to 2007/08 coffee season, AKSCG sold coffee to following FLO impoters; GEPA (Germany), Trabocca, Atlantic SC, and Starbucks. The association is still making contact with other importers to buy their specialty coffee. The association tries to sustain their commercial relationship with FLO importers so that they can plan each season effectively (AKSCG, 2007).

4.3.2 Kilimanjaro Native Cooperative Union (KNCU)

The Kilimanjaro Native Cooperative Union was founded in 1929 as a marketing organisation for the indigenous coffee farmers living on the slopes of Mount Kilimanjaro. Along with all of Tanzania's coffee cooperatives, KNCU was abolished by the government in 1976, but then reinstated in 1984. Up to 2007, KNCU had about 65 000 members from 92 primary cooperative societies (PCS). Out of 92 primary cooperative societies, 70 PCS which represent about 59 000 members have been certified to sell coffee as FT coffee. Other PCS practice organic, specialty, and few conventional. KNCU's overall objective is to assist and promote quality coffee production in a sustainable way for the farmers of Kilimanjaro region. KNCU also seeks to undertake sales and marketing, provide market information, and support efforts in diversification. KNCU is a Fairtrade certified producer and exporter. KNCU was joined and registered to Fairtrade Labeling Organization (FLO) since 1993. KNCU has been regularly inspected and complying with FLO-Cert certification scheme's regulations. During inspection, few randomly picked FT farmers are chosen.

Some of the FLO importers which KNCU has sold their coffee as Fairtrade labeled coffee are; Twin Trading Ltd. (United Kingdom), GEPA (Germany), Equal Exchange (United States of America), Woolworths (South Africa), and Altertrade (Japan). FLO importers and KNCU sustain the commercial relationship exist between them, in a manner that KNCU should offer coffee of required Fairtrade quality standards, and the FLO buyer should pay the producers according to the FLO

requirements. This commercial relationship over the long term helps KNCU efficiently to plan for each season (KNCU, 2007).

4.3.3 Requirements criteria for Fairtrade standards in the organisations

The producer organisations have to fulfill a list of conditions called 'Generic Fairtrade Standards which have three different sections: social, economic and environmental development requirements before they can sell Fair Trade labeled products (FLO, 2008). Briefly, the criteria for social development require that the majority of members are small producers, the organisation is democratic, participatory and transparent, and no discrimination takes place. The economic development requirements include a list of conditions for the use of the Fair Trade premium, and ability of the organization to export coffee in a satisfactory way. The environmental development requirements are mainly concerned with the use of agro chemicals in crop production.

Every year during coffee season the FT organisation is physically inspected against Fairtrade standards by regionally-based FLO-CERT, in Tanzania FLO inspectors are from Kenya. The inspector's report is then considered by the FLO-CERT Certification Committee which takes the final decision on whether or not to certify. If minimum FT requirement have been met, producers are issued with a certificate valid until an agreed date (usually for one year), and this certificate can be renewed following re-inspection (FLO, 2008). The following sections explain how the studied farmers' organisations have been complying with these Fairtrade requirements.

4.3.3.1 Social development requirements

To make sure that AKSCG and KNCU adhered to social development requirements; first, the majority of the members of the organisations are small producers who don't depend on hired workers all the time, but run their farm mainly by using their own and their family's labour. Membership to these organisations is open to any coffee farmer regardless of sex, religion, or social origin. Secondly, both AKSCG and KNCU held General meeting annually, and they have Board of Directors where the members are from primary cooperative societies (for KNCU) and farmers groups (for AKSCG). The annual report and accounts are presented to all members and discussed at the General meeting before being valid for use.

Thirdly, AKSCG and KNCU attempt to make sure that the business and the lives of their producers and their families are improved as per requirement. The organisations have the plan in place for every member to be involved on how they are using the premium money and other benefits from Fairtrade. Raynolds (2002b) observed that determining the use of the Fair Trade premium by the organisations' members may itself strengthen democratic decision-making processes in the organisation. AKSCG have the list of all the groups who sold their coffee under FLO market and the distribution of the money for each group, and the social development projects which are going to be accomplished (Appendix 9). These projects are proposed, debated and voted on at the democratic assemblies of producers. The Annual General Meeting (AGM) is held annually to discuss these projects and other matters concerning the organisation' operations.

4.3.3.2 Economic development requirements

Economic development requirements mainly center on three phenomenons; the Fairtrade premium, ability to export, and economic strengthening of the organisation.

Fairtrade Premium

The FT premium is money on top of the price agreed for the product, for investment in social, environmental or economic development projects, decided upon democratically by producers within the farmers' organisation or by workers on a plantation. It is an extra payment. It is not included in the discussions about the price (FLO, 2008). The premium is fixed by the FLO Standards Unit in the same way as the minimum price and remains the same, even if the producer is paid more than the minimum price for the product. The premium fund is typically invested in education and healthcare, farm improvements to increase yield and quality, or processing facilities to increase income. Since 2007/08 coffee season, FT premium has been raised to cent US$17/kg from cent US$8.58/kg of parchment coffee.

It was observed that KNCU and AKSCG have different approaches in distributing the FT premium, while at KNCU the premium is not passed directly to the producer rather it is pooled at the level of the farmers' organisation and to be invested in crop quality and infrastructure improvements or community projects, at AKSCG, the premium is passed to the farmers groups which sold their coffee through FT channel to be used for construction and/or improvement of infrastructures such as pulpery units' facilities (Appendix 9).

Ability to export

To ensure economic development is achieved, the organisations must have ability to export (FLO, 2008). Both AKSCG and KNCU have acquired certificate for direct export of their coffee which confirm their ability to export. Only organic coffee and the finest Washed Arabica coffee beans of A, AA, AB and PB grades are directly exported as per Tanzania Coffee Board regulations. FT coffee which is finest washed Arabica coffee beans of A, AA, AB and PB grades are also directly exported as per Tanzania Coffee Board regulations. The volumes for exported coffee for both organisations are shown in the Appendix 10 and Appendix 11. The organisations have the important infrastructures and capacity that are necessary to enable communication with coffee buyers, sell to, and to a market overseas such as telephone lines, computers with internet access, vehicles, and warehouses.

Economic strengthening of the organisation

The economic strengthening of the organisation in large part is determined by their ability to export. To achieve economic strengthening of the organisation, AKSCG and KNCU have been striving to increase the ability of the small producers to work together in organizations so that they can export. This goal has been achieved, by encouraging more producers to join the groups. For example, when AKSCG was launched in 2001 by 10 farmer groups, in 2006 the groups increased to 102 with 8000 members, then reached to 117 groups in November 2007 with 10 000 smallholder farmers in Tanzania's three Arabica-growing areas; Kilimanjaro, Mbinga and Mbeya.

AKSCG assists the farmers groups with technical advice as well as providing them with better facilities such as pulpery machines. All these efforts are done to improve the quality of the end product, and hence earn higher prices in the domestic auction or through direct export channel. Coffee (conventional, specialty, Organic, and Fairtrade) which goes through direct export marketing channel have higher price compared to the coffee which pass through the auction because of its higher quality value. For example in 2006/07 season the national average coffee price was US$ 157.82/50 kg for direct export and US$ 108.18/50 kg for auction sale (TCB, 2007).

The total coffee volume for direct export (specifically conventional coffee) at KNCU has been fluctuating for the past five seasons with decreasing trend; Appendix 10. The decreasing trend of direct export is a consequence of decreasing coffee collection to the primary societies; this trend may weaken the economy of the organisation in the long run if measures will not be taken to improve the coffee' revenue. For Fairtrade coffee, the sales are approximately 20% of the total production, and 50% of the total sales (Appendix 10). At AKSCG, the coffee sales for direct export (specialty and Fairtrade) have been increasing for the past three seasons (Appendix 11); this may be a good indicator for strengthening the organisation' economy due to the improving coffee' income.

4.3.3.3 Environmental development requirements

The environmental development requirements are mainly concerned with the use of agrochemicals in crop production (FLO, 2008). The organisations must follow

national and international standards for the handling of chemicals, and also they should protect the natural environment around where they work. To make sure that they comply to environmental development requirements, both AKSCG and KNCU encourage use of botanicals instead of industrial agrochemicals.

Table 24 shows that 16% of FT farmers are using botanicals, in their coffee farms. During the study it was observed that 12% and 42% of FT farmers are using green and animal manure in their coffee farms, which are more environmental friendly compared to industrial fertilizers (Table 24).

Table 24: Farm practices by Fairtrade certification status

Farm practice	FT certified		Non FT certified		Total	
	n	%	n	%	n	%
Contours& terraces	40	16	19	20	59	17
Mulching	36	14	15	16	51	15
Botanical(s) use	39	16	9	9	48	14
Green manure use	29	12	12	12	41	12
Animal manure use	105	42	41	43	146	42
Total	249	100	96	100	345	100

Note: The percentages based on the multiple responses of the cases

At KNCU, they have environmental development projects such as establishment of tree nurseries, and planting of trees. Agrochemicals which are used by the producers have to be tested and approved by Tropical Pesticides Research Institute (TPRI).

Both organisations, AKSCG and KNCU, have the lists of agro chemicals which are not allowed under the FLO Standard for coffee production, and the updates of these lists are also available for the farmers to learn. At KNCU, farmers have been encouraged to shift to organic farming, as one of the measure to reduce agrochemical application in their farms. Some of the farmers have already changed to organic farming completely, others are in the three years process of changing to organic farming and few are still producing coffee in conventional way. In the long run, this movement to organic farming will have positive impact not only to the environment, but also will improve farmer' coffee income as organic coffee have better premium price compared to other sustainable coffee.

In efforts to make sure the environment is protected, farmers have been trained to put terraces and contours in their farms, especially for those farms in mountainous areas to control soil erosion. Table 24 shows that 16% of FT farmers are using terraces and contours in their coffee farms. Mulching is also practiced (14% of FT farmers) because it provides the soil with protection from erosion, direct sun that may lead to excessive evaporation of soil water and suppress weeds. Following difficulties regarding disposal of some of effluent from coffee washing at pulpery units, a pilot project has been set at AKSCG to generate biogas (methane) from coffee effluent so as to protect the environment from environmental pollution (AKSCG, 2007).

4.4 Fairtrade certification and compliance costs in the farmers' organisations

Fairtrade certification and compliance costs include inspection fee, FT standards implementation costs (supervision and monitoring), and data management costs. In

2006/07 FLO certification costs was 4 952 537.96/= TZS at AKSCG, and 10 millions TZS for KNCU. At KNCU export department finances the certification costs. At AKSCG, money to cover the certification and compliance costs are financed by special AKSCG development fund (every member contribute 2% of the coffee sale to AKSCG). Sometimes AKSCG ask for assistance for cost reduction from FLO certification fund.

4.5 Coffee production and marketing in the farmers' organisations

This section entails to explain the coffee production and marketing which includes marketing systems (auction and direct export) in studied FLO certified farmers' organisations i.e. KNCU and AKSCG.

4.5.1 Coffee production and marketing at KNCU

The farmers carry out the primary wet processing on the farm and deliver dry parchment to their local primary society, which then supplies it to KNCU. KNCU handles approximately 50% of the coffee production (mild Arabica) in the Kilimanjaro region, depending on the competition from the private traders (Appendix 10 and Appendix 12). During 2002/03 to 2005/06 coffee season KNCU trades more than 5 250 tons of Arabica coffee, or about five percent of the national mild Arabica production (Appendix 10 and Appendix 12).

Legally the coffee belongs to the farmers up until the auction. The payment which is made to the farmer when coffee is delivered to primary society is an "advance" on the final price to be obtained at auction and not an outright purchase (KNCU, 2007a).

Ownership of the coffee is not transferred until a buyer who is totally external to the co-operative pays for it. KNCU processes the parchment coffee at Tanganyika Coffee Curing Company (TCCCo), the dry mill processing plant owned by KNCU in partnership with other cooperatives. TCCCo has been certified by FLO-Cert coffee as coffee processor (KNCU, 2007b).

At TCCCo each primary society's coffee is separately stored, clean coffee is graded by size and later by gravity table, polishing and kept into special bags of 60 kg. The green coffee which also called clean coffee is then sorted and poor quality beans are discarded. Clean coffee has basically two channels (auction and direct export). Only the finest washed Arabica coffee beans of A, AA, AB and PB are exported directly overseas as per TCB regulations regardless of being FT certified because the sustainable certified coffee are yet recognized by coffee board of Tanzania (TCB, 2007). The remainder goes to the highest bidder at Moshi auction, who then takes responsibility for exporting that coffee. At the auction approximately 30% of clean coffee presented is "bought back" and exported directly by KNCU to coffee buyers overseas (KNCU, 2007a).

The amount of clean coffee bought back depends on the coffee demand of the buyers overseas who want coffee from KNCU (after negotiation between buyer and KNCU). Figure 6 elaborates commodity chain for KNCU Fairtrade coffee.

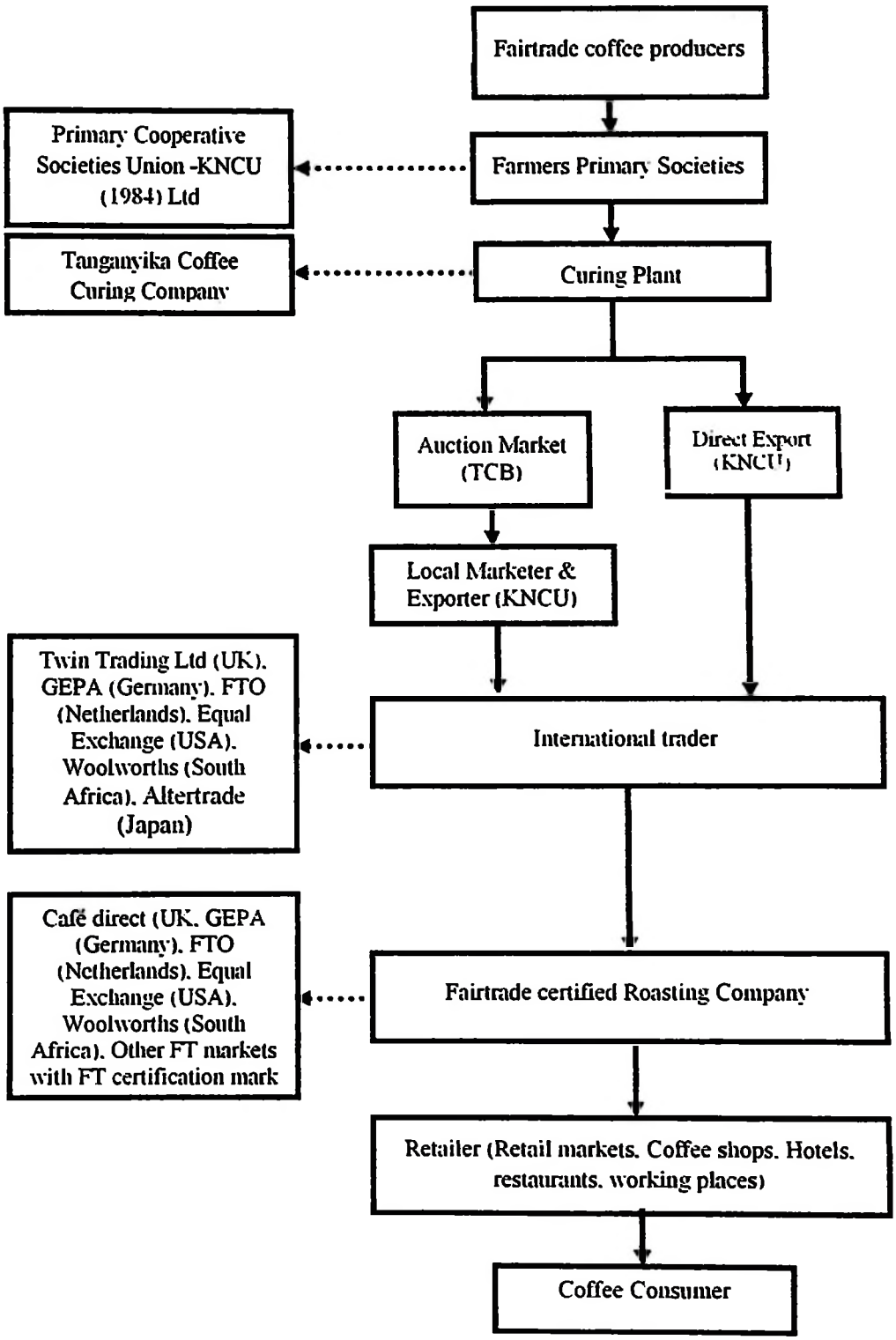


Figure 6: Commodity chain for KNCU Fairtrade coffee
Source: Modified from KNCU (2007)

80% of KNCU coffee is FT certified, because FT importers can not absorb whole stock of coffee produced under Fairtrade practices KNCU sell not more than 20% of the coffee collection to FT channel and the remainder is sold through conventional market (Raynolds, 2002b).

4.5.2 Coffee production and marketing at AKSCG

About 8 000 smallholder farmers out of 10 000 in three Arabica-growing chapters grow coffee under sustainable practices guidelines provided by AKSCG which are the same as that of Fairtrade certification. Once the coffee cherries have ripened the farmers use selective picking techniques. The farmers carry out the primary wet processing on the farm/home, and also at central pulpery units which have been established from the Quality Improvement Programme. The dried parchment coffee transported to the processor/ dry milling plant where each group's coffee is separately stored. Clean coffee is graded by size and later by gravity table, polishing and kept into special bags of 60 kg.

The green coffee which also called clean coffee is then sorted and poor quality beans are discarded. Clean coffee has basically two channels (auction and direct export) Only the finest washed Arabica coffee beans of A, AA, AB and PB are exported directly overseas as per TCB regulations regardless of being FT certified because the sustainable certified coffee are yet recognized by coffee board of Tanzania (TCB, 2007). The remainder goes to the bidder at Moshi auction, who then takes responsibility for exporting that coffee. Tanzanian coffee auction is controlled by the TCB. The clean coffee presented at the auction, approximately 20% of clean coffee

is "bought back" and exported directly by AKSCG to both Fairtrade and conventional buyers overseas (AKSCG, 2007).

The amount of clean coffee bought back depends on the coffee demand of the buyers overseas who want coffee from AKSCG (after negotiation between buyer and AKSCG). Each smallholder group inside AKSCG has separate sales and each group's coffee is kept separately so as to be sure that each smallholder producer receives the money from the sales of his/her coffee whether it is by direct export or domestic auction as well as for traceability purposes. AKSCG has experienced steady increase in coffee production which led to the increase in sales as well, Appendix 11.

4.6 Benefits and Constraints related to Fairtrade compliance by the farmers' organisations

This section entails to answer one of the study questions which require identifying the benefits and constraints related with participation in Fairtrade by the sampled FLO certified farmers' organisations in Tanzania.

4.6.1 Benefits related to FT compliance by the studied organisations

(i) To smallholder producers

The benefits of Fair Trade can be traced in one major area, which is its pricing structure which guarantees a minimum floor price of US$ 1.21 per pound and pays a social premium of cent US$ 17/kg above that minimum or above the world price. Since 2007/08 season, FT premium has been raised to cent US$ 17/kg from cent US$

8.58/kg of parchment coffee. FT premium is used for improvement of the socio-economic situation of the farmers, their families and communities. One of the impact resulted from FT participation is the establishment of development projects. KNCU has established several projects using FT premium money, these projects opened door for employment opportunities to KNCU' smallholder producers as well as non union members.

FT coffee farmers were offered higher coffee price of 1765/= TZS and 1713/= compared to 1300/= TZS and 1690/= TZS of non FT producers by AKSCG and KNCU respectively in the 2006/07 season. Coffee prices offered by these two FT organisations i.e. AKSCG and KNCU appeared to be higher compared to 1500/= TZS offered by private coffee buyers.

FT producers are in the better chance of improving their coffee income because of the guaranteed minimum price. During 2006/07 season sampled FT farmers have higher average net coffee income compared to the sampled non FT farmers. The sampled FT farmers earned an average net coffee income of 336 428/= TZS compared to 287 819/= TZS of non FT farmers. T statistics value shows that there is no significant difference in coffee net income between sampled FT farmers and sampled non FT farmers (Table 12). One of the reasons is operational and management costs of the farmers' organisations such as certification costs which are deducted from the price paid by the certified organisations i.e. KNCU and AKSCG to their members hence lower the amount of money paid to the farmer.

The premium money has been invested in coffee quality improvement; AKSCG and KNCU have been organizing coffee improvement training seminars for their members at least once annually. During 2006/07 season 20% and 53% of FT farmers attended agricultural training seminars offered by KNCU and AKSCG respectively. These training seminars help the members to improve agricultural practices hence production as well as quality. When the quality of the produced coffee is good, it also guarantees the farmers to be offered good prices by other buyers, therefore improves accessibility to other markets, other than certified markets.

(ii) To the organisation

One of the positive impact results from FT participation by the KNCU and AKSCG is the guaranteed market (note this is not the same as guarantee minimum price) such as Starbucks for Kilicafe coffee and Twin Trading Ltd and Equal Exchange for KCNU coffee. Fair Trade certification requires that coffee importers establish long-term purchasing agreements directly with producer groups, which helps to assure a secure market for their product. In the context of current world market oversupplies, the security of a market outlet is important, even though Fair Trade networks are only able to absorb a portion of overall production.

Another major benefit of participation in Fair Trade comes in the form of organizational capacity building. In 2006 three KNCU representatives attended training seminar on Export training and Cupping training which is helping to equip the union with knowledge on coffee grading and classification as well as marketing.

There are also members/partners of FLO who choose to support training on top of the premium they paid, for example Twin Trading Ltd., has sponsored training on Quality Management System: Certification FLO, ISO: 9001 at KNCU. These trainings are crucial to build skills and abilities so that farmers are not reliant on others who might disadvantage them. Hopkins (2000) found that in Fair Trade handicrafts, the impact of capacity building is greater than that of preferential prices. Another Fairtrade partner, Solidaridad sponsored re-structuring of the KNCU management in order to improve services delivered by the union. At AKSCG, FLO has sponsored training on coffee quality system operations to association staff abroad.

Accessibility to market information is another area which shows positive impact due to FT participation is. The technical expertise and market information provided by Fair Trade networks is actually important. After acquiring FLO certification, KNCU applied the sustainable coffee information they have acquired from Fairtrade certification and in 2005/06 they also got organic coffee certification (KNCU, 2006; KNCU, 2007b). Raynolds (2002b) observed that many coffee producer groups appear to use the information and resources they gain in working with Fair Trade networks and Alternative Trade Organizations (ATOs) to enter other high return markets like that for organic produce, for example the case of KNCU. The requirements for production of sustainable coffee are more or less the same, there are slightly difference depending of the nature of the initiative, can be Organic, Fairtrade, or Shade-grown coffee (Giovannucci and Koekoek, 2003). IIED (2000)

study observed that, the most significant impact of FT market participation appeared to be assistance in improving information and market transparency.

4.6.1.1 Projects established from Fairtrade premium at KNCU

KNCU has established several projects using FT premium money, these projects opened door for employment opportunities to KNCU' smallholder producers and well as non union members. Generation of employment opportunities from established development projects is among the benefits resulted from FT participation by KNCU. During the interview it was observed that coffee producers who know and participate in the above mentioned projects thinks that these projects are operated by KNCU' money, and not FT premium money, because of the low awareness on FT market among coffee producers. Other benefit from establishment of these projects is in education area where by scholarships and school fees have been offered to only active KNCU members. Environment has been conserved through establishment of environment conservation and tree nurseries projects, the benefits of environmental conservation spread even to non FT members.

Quality Improvement Programme (QIP)

This is an integrated programme established by KNCU (1984) Ltd. for the improvement of the coffee quality on the slopes of Mount Kilimanjaro. KNCU was motivated to establish this programme because of the two situations which existed in the region. First, the low market prices which discouraged many farmers to invest on coffee, consequently many farmers lost interest in the crop leading to low

productivity and quality of the final product. Second, introduction of private coffee buyers at the farmers' level has put the union into a stiff competition (KNCU, 2004).

The QIP is operating in three districts (Moshi Rural, Rombo, and Hai), where the union functions and it targets primary societies that are potential in coffee collection and have good leadership. The coverage of the programme is 196 farmers groups up to 2006/07 season. In 2006/07 season, 31.8 million of FT premium money was allocated for the QIP programme. Coffee collection from the programme in 2006/07 season was 88 715 kg of specialty coffee and 144 716 kg of conventional coffee, making the total collection to be 233 431 kg (KNCU, 2007a).

Organic Arabica Coffee Project

KNCU (1984) Ltd. has embarked Organic Coffee Project for basically three reasons (KNCU, 2006). First, to alleviate adverse economic condition to the farmers, which was brought by low world market price for coffee relative high input prices, therefore affected social and economic welfare of the coffee farmers. Second, to respond to consumers' demand which has been increasing in recent years because consumers prefer organic products over conventional ones. Third, to fulfill one of the FT environmental development requirements to encourage farmers to shift for organic farming practice so as to have organic certification. KNCU projected to have 2100 farmers in Organic Coffee Project by June 2007 but the figure shows that they have gone beyond their expectation by having 3134 farmers. In 2006/07, coffee collection from the project was 97 030 kg which is the increase of 140% considering

the previous' coffee collections of 40 488kg. To increase the project' coverage area, the union intend to seek more sponsors for the project (KNCU, 2007b).

Education

In education area, FT premium has been used to pay for school fees and offering scholarships. In 2005/06 season, the annual general meeting at the union (KNCU) agreed to allocate 41% of total FT premium money from Café Direct to pay for school fees and scholarships; where by 206 farmers' children were taken to secondary schools. In 2006/07 season, the union spent 30% of total FT premium money from Café Direct for education purposes, and 287 farmer's children were taken to secondary schools (KNCU, 2007). The criterion used for selecting the beneficiaries is the active KNCU membership of the coffee farmer.

Environment conservation

One of the FT requirements is to conserve the environment. That is the reason of allocating 41% of total FT premium money from Café Direct for the latter purpose by the farmers' cooperative union (KNCU) in the 2005/06 season. The purpose was fulfilled by the union to provide seedling shed trees; where by 22 000 seedlings were distributed to the farmer members. Because necessary infrastructures for the project were already in place, in 2006/07 season KNCU reduced money allocation to 12% of total FT premium from Café Direct for environment conservation purpose. 30 000 seedlings were distributed to farmer members (KNCU, 2007b).

Seedling nurseries

As an effort of reviving the crop by getting rid of aged coffee trees, the annual general meeting of the coffee farmers' cooperative union agreed to spend certain percent of the FT premium money for provision of coffee seedlings to the farmer members. In 2005/06 season, 18% of total FT premium money from Café Direct was used for seedling nurseries, where by 4000 coffee seedlings were distributed to farmers. In 2006/07 season, 5000 coffee seedlings were distributed to the farmer members, and 18% of total FT premium money from Café Direct was allocated for the purpose (KNCU, 2007b).

Fair tourism project

KNCU has established Fair tourism project in collaboration with Twin Trading Ltd. and Café direct (these are FLO buyers), and other partners in tourism industry. In Nkwasira, Lemira Muroma and Isuki PCSs the project has built huts for tourist accommodation on the farmers land, and in Uru Msuni PCS it has established a camping site. The project also conducts coffee tours for tourists in some societies. This enabled the local people to manage the tourist operations, improve local skills and channel the income directly into the community (KNCU, 2007b). Fair tourism project has been of benefit even to non FT members (local communities around the union societies) because when the tourists come to visit the camp site, they buy some of necessary needs such as food, and carvings therefore improves business around the camp site.

4.6.2 Constraints related to FT compliance by the studied organisations

Providing agricultural producers and workers with a guaranteed minimum price has been the central pillar of the Fairtrade concept. However, day-to-day business practices show some shortcomings. Producers' organisations, for example, are never able to sell all of their products under Fairtrade market. The benefits of having a Fairtrade certification are there by reduced; this is one of the constraints relating to FT compliance by the studied farmers organisations. At KNCU, average of 20% of all collection is traded through FT market and the rest to other marketing channels like conventional and specialty (Appendix 10). At AKSCG, about 25% and 21% of total sales was sold through FT market in 2005/06 and 2006/07 season respectively.

The minimum price strategy sometimes does not always reflect market dynamics; rapidly changing exchange rates and the increasing costs of agricultural inputs have made most minimum price setting less helpfully. In Tanzania of recent, the prices of goods together with agro-inputs have increased tremendously due to high inflation rate of 8.2% (noted in September 2008). The sample of interviewed coffee farmers were complaining on expensive agro chemical and implements, therefore they suggested something should be done by the government, because even the subsided agro-inputs' supply doesn't meet demand.

Where Fairtrade premium money is retained at the union level, like the case of KNCU, producers are unlikely to be aware that Fair Trade networks offer either premiums or minimum price. During the interview KNCU representatives said that

the premium money is small and the organisation is large (approximately 65 000 members) so it will be insignificant to be divided among all producers. The decision of retaining premium money at the union level was approved by the general meeting where some farmers are included; therefore the decision was all right to those few. Other farmers didn't have any comment about retaining FT premium at union level because they barely know about FT market.

Fairtrade conditions seemed restrict expansion of smallholder farmers. There is dilemma regarding ideal Fairtrade producer, if it is farm size or family income. Different examples show that instead of using code of conduct (degree of control and co-ownership) as basic criteria for a Fairtrade certificate, the main indicator for deciding whether or not a farm can be certified has been its small size. Setting a maximum farm size of two acres conflicts with the original objective of giving smallholder producers access to export markets; therefore it is difficult to allow them to grow because Fairtrade has set maximum farm size of two acres. In areas like Mbinga there are still vacant areas unlike Kilimanjaro as noted by TaCRI (2005) therefore coffee plots can be increased. Fairtrade conditions restricting expansion of smallholder farmers was also observed by Boselie (2007) in his study in Fairtrade impact to fruits smallholder farmers. Bigirwa (2005) concluded that Fairtrade being perceived a niche market, it will always remain small because of that restriction of setting farm size of two acres per smallholder farmer.

Fair-trade labeling does not trade in finished products from producing countries but prefers to deal in raw material like green coffee. To obtain green coffee (also referred

as clean coffee) following processes are undergone pulping, fermentation, washing, drying, curing, and hulling. But further processes can be done to add value to the green coffee, processes like roasting and blending. Failing to allow value addition in FT green coffee (unroasted coffee) deprives FT farmers' organizations the opportunity to earn more money which can help to strengthen the organisation economically.

Another constraint is in the certification and compliance cost incurred by the farmers' organisation as well as their members. AKSCG and KNCU administration declared that the costs of compliance have been high because of additional labour costs such as in data management at organisation level, standard equipments and infrastructure for improved production and primary processing practices (more details on certification and compliance costs in section 4.4).

CHAPTER FIVE

5.0 CONCLUSION AND RECOMMANDATIONS

5.1 Conclusion

Over the past decade, Fair trade has become an alternative approach to conventional trade practices. Fair Trade Organisations (FTOs) started doing transactions with Tanzanian coffee producers since direct purchase became possible in the early 1990s. In the process, Fair trade has brought a range of benefits and constraints relating with FT participation to producers and communities. In the studied Fairtrade certified farmers organisations several differences were observed between FT farmers and non FT farmers. FT farmers as well as their organisations have been enjoying the benefits of the FT premium which is paid for investment in social, environmental, and economic development projects. FT premium money has been invested in crop quality improvement, construction and/or improvement of infrastructure such as pulpery units, and establishment of community projects such environmental conservation and education projects. Through the established projects employment opportunities have been created and businesses been improved for both FT and non FT farmers, environment is conserved as well.

FT coffee farmers were offered higher coffee price compared to non FT producers by AKSCG and KNCU. Average coffee prices offered by these two FT organisations i.e. AKSCG and KNCU appeared to be higher compared to the average coffee price offered by private coffee buyers. Because FT farmers organisations guarantee

minimum price to FT producers, the latter are in a better chance of improving their coffee income compared to non FT farmers though sometimes are rendered by high costs of farm inputs. During 2006/07 season sampled FT farmers had higher average net coffee income compared to the sampled non FT farmers. T statistics value shows that there is no significant difference in coffee net income between sampled FT farmers and sampled non FT farmers (Table 12). One of the reasons is operational and management costs of the farmers' organisations such as certification costs which are deducted from the price paid by the certified organisations i.e. KNCU and AKSCG to their members hence lower the amount of money paid to the farmer.

Compared to non FT farmers organisations, FT farmers organizations have been benefiting from guaranteed FT market, accessibility of market information and organizational and producer's capacity building offered by Fairtrade organizations (ATOs). Though Tanzania Coffee Board is yet to recognize Fairtrade standard in auction system but has allowed direct export for finely washed Fairtrade Arabica coffee of top grades to enjoy higher coffee price due to its premium quality.

5.2 Recommendations

Based on the findings of the study, the following recommendations were drawn: -

i. Fairtrade farmers organisations should be more effective in distributing the FT benefits to the individual farmers because the extent to which individual farmers benefit from FT participation depends on the effectiveness of the farmers' organisation, the way in which they use their relationship with Fair

ii. Awareness and understanding of Fairtrade standard issues were observed to be low among interviewed coffee farmers. The dissemination of information such as sustainable codes of conduct in coffee sector is therefore necessary. Creating and developing information systems helps to keep abreast with challenges and opportunities in the coffee industry. This task should be done by the farmers' organisations as well as the regulatory body i.e. coffee board.

iii. FLO should appraise its requirement concerning value addition to the FT green coffee; therefore help smallholder producers to earn more hence improve their coffee income.

iv. Processors and millers dealing with FT coffee should make a move to purse Tanzania Coffee Board to recognize Fairtrade standard in the auction system. This movement was possible in Kenya coffee industry, it can achievable even in Tanzania coffee industry if there are joint efforts by the stakeholders. Recognition of Fairtrade standard can create a reliable link between international markets and coffee producer organisations as well as awareness of the FT market in the coffee industry.

REFERENCES

Association of Kilimanjaro Specialty Coffee Growers (AKSCG) (2007). *AKSCG : Profile.* AKSCG, Moshi, Tanzania. 12pp.

Antonelli, S. (1997). Managing Standards Compliance: Overview. [http://www.cs.ucl.ac.uk/staff/A/Finkelstein/talks stds complsen.pdf] site visited on 12/4/2008

Bacchetti, L. and Costantino, M. (2006). Fair Trade on Marginalised Producers: An Impact Analysis on Kenyan Farmers. [http://www.econpapers.repec.org /scripts/search.asp?ft=Becchetti&pg=1] site visited on 15/5/2007.

Bacon, C. (2005). Confronting the Coffee Crisis: Can Fair Trade, Organic, and Specialty Coffees Reduce Small-Scale Farmer Vulnerability in Northern Nicaragua? *World Development* 33(3): 497 – 511.

Baffes, J. (2005). Tanzania's Coffee Sector: Constraints and Challenges. *International Development* 17: 21 – 43.

Bailey, D. K. (1994). *Methods of Social Research 4th edition.* The Free Press Collier Macmillan Publisher, London. 478pp.

Bee, K.F., Bamanyisa, M. J. and Diyamett, N. L. M. (2007). Impact of agricultural policies on farming business by members of rural producer organisations in Tanzania: A survey of four regions. In: *BEEP Research Report 1.* (Edited by BEEP), Moshi University College of Co-operative and Business Studies, Moshi. pp. 1-36.

Bigirwa, J. (2005). Fair-trade and Cooperatives: The Uganda experience. [http://www.copac.coop/for a/berlin2005/Uganda-fairtrade.pdf] site visited 12/4/2008.

Boselie, D. (2008). Fairtrade Fruit: Success, Challenges and Dilemmas. LEISA Magazine, Volume 24(1). p. 7.

Burkey, S. (1992). *People First: A Guide to Self-Reliant Participatory Rural Development.* Zed Books Ltd., London and New Jersey. 395pp.

Business Service Industry (2006). Fair Trade Certified Kenyan coffee finally available: Premium market now promises remium pay for thousands of impoverished farmers. [http://findarticles.com/p/articles/mi_MOEIN/is_2006_April_8] site visited on 20/10/2008.

Castro, J. E. (2001). Impact assessment of Oxfam's Fairtrade activities: The case of COPAVIC. [http://www.oxfam.org/en/news] site visited on 15/5/2007.

Coffee Guide (2007). World Coffee Trade. [http:/www.coffeeguide.org] site visited on 5/3/2007.

Cooksey, B. (2003). Marketing Reform? The Rise and Fall of Agricultural Liberalisation in Tanzania. *Development Policy Review* 21: 67-91.

Daviron, B. and Stefano, P. (2005). *The Coffee Paradox: Global Markets, Commodity Trade and the Elusive Promise of Development.* Zed Books Ltd., London, 295pp.

Develtere, P. and Pollet, I. (2005). Cooperatives and Fair-Trade. [www.copac.coop/for a/berlin2005/cooperatives-and-fair-trade-final.pdf.] site visited on 29/02/2008.

EAFCA (2007). Uganda: The Origins of Robusta Coffee. [http://www.eafca.org/] site visited on 20/10/2008.

Eberhart, N. (2005). Impact study of Fairtrade on organisations and peasant families and their territories in coffee of Yungas from Bolivia. [http://www.fairtrade.net/impact_studies.html] site visited on 14/5/2007.

EPZA (2005). *Tea and Coffee Industry in Kenya.* PKF Consulting Ltd and International Research Network, Nairobi, Kenya. 21pp.

Fairtrade Foundation UK (2007). Estimated UK retail sales by value 1998-2006. [http://www.fairtrade.org.uk/press office/press releases and statements/archive2007] site visited on 13/5/2008.

Fairtrade Foundation UK (2008). Fairtrade estimated retail sales. [http://www.fairtrade.org.uk/press office/press release and statements/feb 2008/] site visited on 13/5/2008.

FLO (2007). Fairtrade Standards for Coffee. [http://www.fairtrade.net/pdf/ sp/English/coffee%20.pdf] site visited on 29/2/2008.

FLO (2008). Generic Standards for Small farmers' Organizations. [http://www.fairtrade.net/fileadmin/user_upload/content/Generic_Fairtrade_Standard_SF_March_2007_EN.pdf] site visited on 13/5/2008.

Fitter, R. and Kaplinsky, R. (2001). Who gains from product rent as the coffee market, becomes more differentiated? : A value chain analysis. [http://www.ids.org] site visited on 15/3/2008.

Giovannucci, D. and Koekoek, F.J. (2003). The State of Sustainable Coffee: A study of twelve major markets. [http://www.iisd.org] site visited on 12/4/2008.

Giovannucci, D. (2006). Salient Trends in Organic Standards: Opportunities and Challenges for Developing countries. [www.orgprints.org/12857/01/ Salient_Trends_in_Organic_Standards_Opportunities_for_Developing_Countries_final.pdf] site visited on 12/4/2008.

Giovannucci, D. (2007). Estimated volumes of third part certified sustainable coffee sold in 2006. [http://www.agritrade.cta.int/ne/content/view/full/2509] site visited 25/3/2008.

Gujadhur, K. S. (2003). Influencing Market Standards: A Voice for Developing countries. [http://www.tradeforum.org/news/fullstory.php/aid/553Influencing Market Standards: A Voice for Developing countries.html] site visited on 21/5/2008.

Global Exchange (2007). Fair Trade Coffee. [http://www.globalexchange.org/ campaigns/fairtrade/coffee/] site visited on 12/5/2007.

Harris, B. and Firl, M. (2004). A Succeess story from North to South. Cooperative Coffees Newsletter for and about Fair Trade, Issue No. 4. p. 4.

Henson, S. (2004). Standards and Trade: An Overview. [http://www.uneca.org/eca_programmes/trade_and_regional_intergration/events/aidsfortrade/programmeSE1.htm] site visited on 21/5/2008.

Hopkins, R. (2000). Impact assessment study of Oxfam Fairtrade. [http://www.oxfam.org/en/news] site visited on 15/5/2007.

IMF and World Bank (2001). Market access for Developing countries Exports. [http://www.worldbank.org/ economics/marketaccess.pdf] site visited on 21/5/2008.

ICO (2007). Developing a Sustainable Coffee Economy. [http://www.ico.org] site visited on 15/5/2007.

IIED (2000). Fair-trade: Overview, Impact, Challenges. [http:www.iied.org/ mediaroom/press2006.html.] site visited on 25/3/2008.

ITC (2003). Influencing and Meeting International Standards, Challenges for Developing Countries. [http://www.intracen.org/newsrel/] site visited on 21/5/2008.

ITC (2005). Boosting Market Access for Least Developed Countries. [http://www.intracen.org/newsrel] site visited on 11/3/2008.

Jaffee, S. and Henson, S. (2004). Standards Agro-food Exports from Developing Countries: Rebalancing the debate. [http://ideas.repec.org/p/wbk/wbrwps/3348.html] site visited on 21/5/2008.

Jones, G. E. and Rolls, M. (1997). *Progress in Rural Extension and Community Development: Extension and Relative Advantage in Rural Development*. John Wiley and Sons, New York. 212pp.

KNCU (2004). *Quality Improvement Programme*. KNCU (1984) Ltd., Moshi, Tanzania. 20pp.

KNCU (2006). *Kilimanjaro Organic Arabica Coffee Project*. KNCU (1984) Ltd., Moshi, Tanzania. 24pp.

KNCU (2007a). *Taarifa ya Meneja Mkuu: Makisio ya mapato msimu wa 2006/07*. KNCU (1984) Ltd., Moshi, Tanzania. 10pp.

KNCU (2007b). *KNCU Profile: Cafedirect*. KNCU (1984) Ltd., Moshi, Tanzania. 4pp.

Lazaro, A. E. and Makindara, J. (2008). Sustainability standards and coffee exports from Tanzania. [http:www.diis.dk/graphics/subweb/SAFE/%20policy %20brief%203brief.pdf.] site visited on 21/5/2008.

Massambu, D., Mataka, L. and Bee, K. F. (2007). Access to Agricultural Finance in Tanzania. In: *BEEP Research Report 2.* (Edited by BEEP), Moshi University College of Co-operative and Business Studies, Moshi. pp. 13-45.

Mattee, A. Z. and Lassalle, T. (1995). Towards sustainable rural development using the participatory approach. In: *The Tanzanian Peasantry: Further Studies.* (Edited by Foster, G. P. and Maghimbi, S.), Averbury Publishing Limited, Ashgate. pp. 170-197.

Mhando, G. D. (2005). Farmer's coping strategies with the changes of coffee marketing system after economic liberalization: the case of Mbinga District, Tanzania. Dissertation for award of PhD at Kyoto University, Kyoto, Japan, 185pp.

Milford, A. (2004). Coffee, Co-operatives and Competition: The Impact of Fairtrade. [http://www.cmi.no/publications] site visited 29/2/2008.

MITM (2007). *Study on Kagera Coffee Marketing System.* BACAS-SUA, Morogoro, Tanzania. 40pp.

Murray, D., Raynolds, L. T and Taylor, P. L (2003). One cup at a time: Poverty alleviation and Fair Trade in Latin America. [http://www.colostate.edu/depts/sociology/FairTradeResearchGroup/doc/fairtrade.pdf] site visited on 29/2/2008.

Overland, B. (2005). Fairtrade and Organic Coffee: A viable Strategy for Rural livelihoods? [http://ecommons.uwinnipeg.ca/archive/00000166/01/IDS 2006 overland.pdf] site visited on 20/10/2008.

Oxfam (2002). Coffee companies under fire as millions face ruin. [http://www.oxfam.org/en/news/pressreleases2002/pr020918coffee.htm] site visited on 11/3/2008.

Oxfam (2007). Rigged Rules and Double Standards. [http://www.maketradefair.com/en/index.php?file=03042002121618.htm] site visited on 21/5/2008.

Pariente, W. (2000). The Impact of Fairtrade on coffee cooperative in Costa Rica: A Producer behavior approach. [http://www.oxfam.org/en/news] site visited on 15/5/2007.

Paul, E. (2005). Evaluating Fair Trade as a Development Project: Methodological considerations. *Development in Practice* 15(2): 135 - 150.

Ponte, S. (2002a). *Farmers and Markets in Tanzania: How Policy Reforms Affect Rural Livelihoods in Africa.* Mkuki na Nyota Publisher, Dar-es-salaam, Tanzania. 320pp.

Ponte, S. (2002b). Standards, Trade and Equity: Lessons from Specialty Coffee Industry. [www.foodnet.cgiar.org/scrip/docs&databases/ifpriStudies UG .../pdfs/.../Standards%20in%20trade%20(Ponte%20CDR%20wp-02-13] site visited on 12/4/2008.

Ponte, S. (2004). Standards and Sustainability in the Coffee Sector: A Global Value Chain. [http://www.iisd.org] site visited on 12/4/2008.

Raynolds, L.T. (2002a). Consumer/Producer links in Fair Trade Coffee Networks. *Sociologia Ruralis* 42(4): 404-422.

Raynolds, L.T. (2002b). Poverty alleviation through participation in Fair Trade Coffee Networks: Existing research and Critical Issues. [http://www.colostate.edu/depts/sociology/FairTradeResearchGroup/doc/fairtrade.pdf] site visited on 29/2/2008.

Raynolds, L.T. (2004). The Globalization of Organic Agro-Food Networks. *World Development* 32(5): 725-743.

Raynolds, L.T., Murray, D. and Taylor, P. L. (2004). Fair Trade Coffee: Building Producer Capacity via Global Networks. *International Development* 16: 1109-1121.

Reardon, T., Codron, J.M., Busch, L., Bingen, J. and Harris (2001). Global Change in Agrifood Grades and Standards: Agribusiness Strategic Responses in Developing countries. *International Food and Agribusiness Management* 2(3): 45 – 68.

RIS (2003). Cancun Agenda: Environmental Requirements and Developing Countries' Exports. [http://www.ris.org.in/Pdno5.pdf] site visited on 21/5/2008.

Ronchi, L. (2002). The Impact of Fair Trade on Producers and their organizations: A case study with Coocafe in Costa Rica. [http://www.fairtrade.net/uploads/media/ronchi_ft_impact_cococafe_costa_rica.pdf] site visited on 15/5/2007.

Sayer, G. (2002). Coffee Futures: The Impact of Falling World Prices on Livelihood in Uganda. [http://www.oxfarm.org/en/news] site visited on 20/10/2008.

TaCRI (2005). *Coffee Baseline Report*. BACAS-SUA, Morogoro, Tanzania. 71pp.

TCB (2003). *Coffee Regulations 2003*. TCB, Moshi, Tanzania. 42pp.

TCB (2007a). *Tanzania Coffee Board: Procedure for Direct Export of Premium Green Coffee.* TCB, Moshi, Tanzania. 32pp.

TCB (2007b). *Tanzania Coffee Board: Coffee Production by type and region.* TCB, Moshi, Tanzania. 5pp.

Technoserve (2006). *Case Study on Coffee in Tanzania.* Technoserve, Dar-es-salaam, Tanzania. 13pp.

Temu, A. (1999). Empirical Evidence of Changes in the Coffee Market After Liberalization: A case of Northern Tanzania. Dissertation for award of PhD at Illinois University, Urbana, USA, 210pp.

Temu, A. (2001). Market Liberalization, Vertical Integration and Price Behavior in Tanzania's Coffee Auction. *Development Policy Review* 19(2): 207 – 224.

Tuvhag, E. (2006). The Costa Rican Experience of Fair Trade Coffee: Impact on Producer and Producer Organizations. [www.ico.org/libser/buljulaug 2007.pdf] site visited on 20/10/2008.

UNCTAD (2005). Developing Countries in International Trade: Trade and Development Index. [http://www.uncta.org/en/docs] site visited on 5/4/2008.

UNCTAD (2004). Environmental Requirements and Market Access for Developing countries. [http://www.unctad.org/en/docs//tdxibpd1_en.pdf] site visited on 5/4/2008.

UNCTAD (2007). Are Private sector standards a barrier to trade?. UNCTAD 08 June 2007. [http://www.unctad.org/Templates/Page.asp?intItemID=4285&lang=1] site visited on 5/4/2008.

URT (2002a). 2002 Population and Housing Census General Report. [http://www.tanzania.go.tz/census/districts/mbinga.htm] site visited on 11/3/2008.

URT (2002b). 2002 Population and Housing Census General Report. [http://www.tanzania.go.tz/census/districts/moshirural.htm] site visited on 11/3/2008.

URT (2005). *Poverty and Human Development Report.* Mkuki na Nyota Publisher, Dar-es-salaam, Tanzania. 125pp.

URT (2006). The Economic Survey. [http://www.tanzania.go.tz/ economicsurveyf.html] site visited on 20/4/2008.

Von Kirchbach, F. and Mimouni, M. (2003). Market Access Barriers: A Growing Issue for Developing Country Exporters? [http://www.tradeforum.org/ news/fullstory.php/aid/552/Market_Access_Barriers%3A_A_Growing_Issue_ for_Developing_Country_Exporters_html] site visited on 23/4/2008.

Yaron, J. (1997). Rural Finance in Developing Countries. [http://www-wds.worldbank.org/servlet/WDS Content Ser...d/PDF/multipage.pdf] site visited on 23/4/2008.

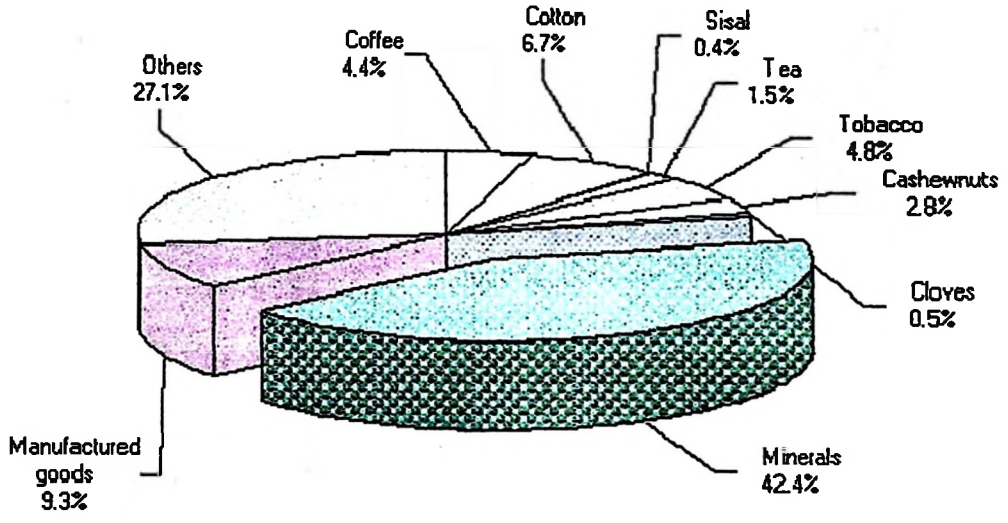
APPENDICES

Appendix 1: Value (fob), Volumes and Prices of Tanzania's Major Exports

	2001 r	2002 r	2003 r	2004 r	2005 r	2006 p	2005-2006 (%Change)
Traditional Exports:							
Coffee							
Value (US$ mill.)	57.15	35.2	50	49.8	74.3	61.4	-17.4
Volume ('000 tons)	48.4	36.4	46.2	38.6	46.1	31.5	-34.7
Price (US$ per ton)	1179.1	968.4	1.081.7	1.289.6	1.613.6	1.953.1	21.0
Cotton							
Value (US$ mill.)	33.7	28.6	46.5	74.6	111.5	55.8	-50.0
Volume ('000 tons)	36.8	33.3	46.9	77.6	112.9	55.0	-51.3
Price (US$ per ton)	915.3	859.4	992	961.1	987.9	1.014.2	2.7
Sisal							
Value (US$ mill.)	6.7	6.6	7.3	7.2	7.3	6.1	-16.4
Volume ('000 tons)	13.9	12.7	13.9	12	9.3	8.0	-14.0
Price (US$ per ton)	482.0	516.4	523.5	602.8	781.7	766.7	-1.9
Tea							
Value (US$ mill.)	29.0	29.6	24.8	30.1	25.6	31.0	21.1
Volume ('000 tons)	23.0	24.3	21.2	24.3	21.8	22.4	2.8
Price (US$ per ton)	1264.4	1217.8	1.170.3	1.237.3	1.178.0	1.384.9	17.6
Tobacco							
Value (US$ mill.)	35.7	55.5	39.9	57.6	80.8	65.2	-19.3
Volume ('000 tons)	18.7	24.3	18.3	27.2	31.1	25.0	-19.6
Price (US$ per ton)	1906.2	2188.6	2.177.0	2.119.4	2593.1	2.611.4	0.7
Cashew nuts							
Value (US$ mill.)	56.6	46.6	41.8	68.1	46.6	39.4	-15.5
Volume ('000 tons)	95.04	79	65.1	83.6	62	66.3	6.9
Price (US$ per ton)	595.4	589.7	641.6	814.2	751.1	594.4	20.9
Cloves							
Value (US$ mill.)	12.3	4	10.3	10.3	8.5	8.2	-3.5
Volume ('000 tons)	2.5	1	5.6	4.3	3.0	2.4	-20.0
Price (US$ per ton)	5.026.8	4.164.4	1.845.2	2.367.3	2.863.5	3.346.2	16.9
Sub-Total Value (Traditional exports)	**231.1**	**206.1**	**220.5**	**297.8**	**354.5**	**267.1**	**-24.7**
Non-Traditional Exports: (US$ mill)							
Minerals	302.2	383.8	552.2	680.2	711.3	823.9	15.8
Gold	254.1	341.1	502.8	629.4	655.5	773.2	18.0
Diamond	27.1	22.0	28.6	26.0	24.4	22.4	-8.2
Other Minerals	21.1	20.7	20.7	24.8	31.4	28.3	-9.9
Manufactured Goods	56.2	65.9	83.8	110.1	156.1	195.8	25.4
Fish and Fish Products	96.78	116.8	136.2	125.7	147.5	138.6	-6.0
Horticultural Products	11.0	10.9	13.7	14.3	18.3	15.4	-15.8
Re- export	74.9	77.0	86.9	137.0	127.1	128.3	0.9
Other Exports	79.2	119.2	122.9	108.1	161.5	154.0	-4.6
Sub- Total (Non- traditional)	**620.2**	**773.5**	**995.7**	**1,175.3**	**1,321.8**	**1,455.9**	**10.1**
GRAND TOTAL	**851.3**	**979.6**	**1,216.1**	**1,473.1**	**1,676.3**	**1,723.0**	**2.8**

Source: URT (2006) **Key:** r revised P provisional

Appendix 2: Percentage contribution of Tanzania's major exports in 2006



Source: URT (2006)

Appendix 3: Main destinations for most coffee exports

Importing countries/areas	1999/00	2000/01	2001/02	2002/03	2003/04	2004/05
World	77.824	81.591	82.689	85.840	86.724	85.866*
North America	**20,988**	**22,022**	**21,313**	**22,612**	**22,798**	**23,247**
Of which						
United States	18.681	19.430	18.699	20.206	20.666	20.387
Western Europe	**39,057**	**40,169**	**39,226**	**40,292**	**40,074**	**39,378**
Of which						
France	5.365	5.358	5.394	5.446	5.105	4.978
Germany	9.410	9.658	9.141	9.378	9.194	9.042
Italy	5.122	5.221	5.212	5.402	5.476	5.563
Eastern Europe	**3,375**	**3,940**	**5,374**	**6,338**	**6,846**	**6,600**
Asia and the Pacific	**10,757**	**11,258**	**12,491**	**12,313**	**12,513**	**12,250**
Of which						
Japan	6.660	6.762	6.897	6.717	7.117	7.224
Others	**3,647**	**4,202**	**4,285**	**4,285**	**4,493**	**4,391**

* Estimated

Source: ICO (2007)

Appendix 4: Total production of exporting countries

CROP YEARS COMMENCING: 2002 TO 2007

(000 bags)

		Crop year	2002	2003	2004	2005	2006	2007
WORLD PRODUCTION			**123 723**	**105 457**	**116 895**	**110 806**	**126 320**	**117 032**
TOTAL			**122 029**	**103 592**	**115 330**	**109 769**	**125 171** 1 /	**115 866**
Angola	(R)	Apr-Mar	57	38	15	25	35	100 3 /
Benin	(R)	Oct-Sep	0	0	0	0	0	0
Bolivia	(A)	Apr-Mar	149	125	165	135	152	135
Brazil	(A/R)	Apr-Mar	48 480	28 820	39 272	32 944	42 512	33 740 3 /
Burundi	(A/R)	Apr-Mar	454	338	437	285	387	257
Cameroon	(R/A)	Oct-Sep	801	900	727	849	831	795
Central African Rep.	(R)	Oct-Sep	92	43	45	46	78	65
Colombia	(A)	Oct-Sep	11 889	11 197	12 033	12 329	12 789	12 400
Congo, Dem.Rep. of	(R/A)	Oct-Sep	319	427	360	336	344	400
Congo, Rep. of	(R)	Jul-Jun	3	3	3	3	3	3
Costa Rica	(A)	Oct-Sep	1 893	1 783	1 887	1 778	1 570	1 900
Côte d'Ivoire	(R)	Oct-Sep	3 145	2 689	2 301	2 396	2 482	2 350
Cuba	(A)	Jul-Jun	239	224	242	229	240	250
Dominican Republic	(A)	Jul-Jun	455	361	481	471	420	500
Ecuador	(A/R)	Apr-Mar	732	766	938	1 138	1 172	950
El Salvador	(A)	Oct-Sep	1 438	1 477	1 437	1 502	1 372	1 476
Ethiopia	(A)	Oct-Sep	3 693	3 874	4 568	4 003	4 636	5 733 3 /
Gabon	(R)	Oct-Sep	1	0	0	1	1	2
Ghana	(R)	Oct-Sep	29	16	17	21	28	25
Guatemala	(A/R)	Oct-Sep	4 070	3 610	3 703	3 676	3 950	4 000
Guinea	(R)	Oct-Sep	328	366	316	525	340	300
Haiti	(A)	Jul-Jun	374	374	365	356	362	350
Honduras	(A)	Oct-Sep	2 496	2 968	2 575	3 204	3 461	3 500
India	(A/R)	Oct-Sep	4 588	4 508	4 592	4 567	4 750	4 850
Indonesia	(R/A)	Apr-Mar	6 785	6 571	7 536	8 659	6 650	7 000
Jamaica	(A)	Oct-Sep	37	37	21	34	32	35
Kenya	(A)	Oct-Sep	945	673	756	640	750	925
Madagascar	(R/A)	Apr-Mar	445	435	522	599	587	500
Malawi	(A)	Apr-Mar	42	48	21	24	17	35 3 /
Mexico	(A)	Oct-Sep	4 350	4 200	3 867	4 225	4 200	4 350
Nicaragua	(A)	Oct-Sep	1 200	1 547	1 130	1 718	1 300	1 750
Nigeria	(R)	Oct-Sep	50	46	45	69	44	55
Panama	(A)	Oct-Sep	140	172	90	173	161	150
Papua New Guinea	(A/R)	Apr-Mar	1 085	1 155	998	1 268	807	1 043
Paraguay	(A)	Apr-Mar	26	52	26	45	19	35
Peru	(A)	Apr-Mar	2 900	2 616	3 355	2 419	4 250	3 190 4 /
Philippines	(R/A)	Jul-Jun	721	433	517	126	522	712
Rwanda	(A)	Apr-Mar	320	266	450	300	254	283
Sierra Leone	(R)	Oct-Sep	42	34	15	60	15	40 4 /
Sri Lanka	(R/A)	Oct-Sep	34	37	32	34	32	35 4

Tanzania	(A/R)	Jul-Jun	824	612	763	721	750	867 /
Thailand	(R)	Oct-Sep	732	827	884	999	766	935
Togo	(R)	Oct-Sep	68	144	166	140	130	135
Trinidad and Tobago	(R)	Oct-Sep	16	16	15	15	11	15 4/
Uganda	(R/A)	Oct-Sep	2 890	2 599	2 593	2 159	2 600	2 750
Venezuela	(A)	Oct-Sep	865	746	644	761	804	870
Vietnam	(R)	Oct-Sep	11 555	15 231	14 174	13 595	18 455	15 950
Zambia	(A)	Jul-Jun	119	100	110	103	56	75
Zimbabwe	(A)	Apr-Mar	110	92	120	66	45	50
Other producing countries	5/		1 694	1 865	1 565	1 037	1 149	1 166

1/ Derived on the basis of gross opening stocks at the end of crop year 2006/07
2/ Estimate to be confirmed by the Member unless otherwise indicated
3/ Estimated by the Member
4/ Estimated
5/ Equatorial Guinea, Guyana, Laos, Liberia, Malaysia, New Caledonia and Yemen
Source: ICO (2007)

Appendix 5: Current Principal Institutions in the Tanzanian Coffee Sector

INSTITUTION	ENTITY	MAIN FUNCTIONS AND RESPONSIBILITIES
Ministry of Agriculture and Food Security	Government	Supervises the sector. Acts as liaison between the sector and the legislature and provides legal and policy guidelines.
Ministry of Cooperatives	Government	Oversees and regulates the cooperative unions. It provides policy guidance and operational framework that is geared towards restructuring cooperatives to operate on an independent, voluntary and economically viable basis and to develop into centers for providing and disseminating agricultural inputs, technology and information
Tanzania Coffee Board	Statutory body	Established with the Policy Industry Bill of 1993, it replaced the Tanzanian Coffee Marketing Board. Advises the government on policies and strategies for the development of the coffee industry, regulates the industry, issues various licenses and permits, collects and disseminates statistics, and runs the coffee auction.
Primary Societies	Private sector	Village-level associations, whose membership consists of farmers, often act as agents of coffee buyers (either private or union.) Engage in a number of other commercial and non-commercial activities
Cooperative Unions	Private sector	Associations of primary societies, often buy, store, and process coffee in their own facilities (also engage in other activities.) Compete with private traders. As of 1991 are supposed to be private entities. The Kilimanjaro Native Cooperative Union was the first union to be registered under the Co-Operative Societies Ordinance of 1932
Tanzania Coffee Research Institute (TaCRI)	Non-profit organization	Established in 2001 and modeled after the Tea Research Institute. Financed by a levy collected by the Coffee Board.
Tanzania Coffee Growers Association	Private sector	Established in 1945, promotes the interests of large coffee farmers and estate producers.
Tanzania Coffee Association	Private sector	Private sector Established in 1996, mainly a forum for dispute resolution. Membership consists of licensed coffee traders, processors, cooperative unions, and exporters.

Source: Modified from Baffes (2005)

Appendix 6: Nation Coffee Inputs Voucher Scheme (NCIVS)

The Nation Coffee Inputs Voucher Scheme (NCIVS) was introduced in 1996 by joint efforts of the Coffee Board and the Coffee Association. The purpose of the scheme was 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 (Mhando, 2005). 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). Apart from farmers and parchment buyers, another link with the inputs vouchers scheme is 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 (Mhando, 2005).

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. Mhando (2005) during his study observed that 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. Another problem of inputs voucher scheme is the weakness and loopholes, which allows PCBs to purchase parchment coffee from farmers without distributing inputs vouchers (Mhando, 2005). Due to weaknesses observed in NCIVS, it seems there is still a problem of agricultural input availability to the farmers especially for the smallholder ones because of their low crop income in comparison to the large scale producers.

Appendix 7: Questionnaire

Objective of the research: Impact assessment of Fairtrade participation by smallholder coffee farmers and their organisations

SECTION A: Identification (Table 1)

1.	Ward	
2.	Division	
3.	District	
4.	Respondent's name	
5.	Sex of the respondent 1= Male 2=Female	
6.	Respondent's level of education 1=Primary (std) 2=Secondary (form) 3=Diploma (of what? years?) 4=Training (on what? years?) 5=University (degree)	
7.	Respondent's economic activity(ies) besides coffee farming 1=Livestock keeeping (which livestock?) 2=Business (type) 3=Govt. employee 4=Others (explain)	
8.	Interviewer's name	
9.	Date of interview	

10) Are you belonging to any coffee farmers' group(s)?
1= Yes 2=No (go to qn 14) [ ]

11) If qn 10 is Yes, for how long have been involving with that coffee farmers' group(s)? (years)

12) If qn 10 is Yes, What is the name of your coffee farmers' group(s)?

13) If qn 10 is Yes, How many are you in that/those coffee farmers' group(s)?

14) Are you belonging to any coffee farmers' cooperative society?
1=Yes 2=No [ ]

15) If qn 14 is Yes, for how long have you been involving with that coffee farmers' cooperative society? (years)

16) Have you heard about Fairtrade (FLO)?
1= Yes 2=No (go to section B) [ ]

17) If qn 16 is Yes, What do you understand about Fairtrade?
.....
.....

18) Has your farmers' organization been participating in selling coffee in Fairtrade market?
1=Yes 2=No [ ]

19) If qn 18 is No, Why? (then go to section B)

.....
.....
.....

20) If qn 18 is Yes, which seasons did your farmers' organization sell coffee in Fairtrade market? (Years).

21) Which of the following statements do you agree the most about Fair trade?
1) Fairtrade is sponsoring individual
2) Fairtrade means getting a better earning
3) Fairtrade is an equal commercial relationship [ ]
4) Fairtrade is an alternative approach to convetional international trade which aims at sustainable development for excluded and disadvantaged producers.

22) Which benefit(s) have you gained as an individual producer since started producing and selling coffee in Fairtrade system?

.....
.....
.....

23) Which constraint(s) have you faced as an individual producer since started producing and selling coffee in Fairtrade system?

.....
.....
.....

SECTION B: Farm resources and Input availability

1) How many plots do you have for crop production? (number)

Table 2: Land availability and use

Plot no.	2) what is the size(area) of the plot? (acres)	3) what ia the total area cultivated in 2006/07 season? (acres)	4) How did you acquire the land? 1=Inherited 2=Bought 3=Hired 4=Given by village government 5= Access a free land	5) If qn.4 is 2, how much did you paid? TZS/acre	6) If qn.4 is 3, how much did you paid? TZS/acre	7) which crop planted in 2006/07 season?
1.						
2.						

SECTION C: Coffee production in 2006/07 season

Table 3: Coffee production in 2006/07 season

1) What is the total farm area? (acres)	
2) How many coffee tree harvested?	
3a) How much of the coffee harvested? (*Cherries*)?	Bags…… Weight(Kg)…..
3b) How much of the parchment coffee obtained?	Bags…… Weight(Kg)……

Table 4: Agro inputs used for coffee production in 2006/07 season

Input	4) What is the type of the input used?	5) What is the cost of input used? (TShs)	6) Where did you acquire the input? 1= Primary society 2= Private company 3= Hawker 4= Stockiest 5= Others (explain)	7) How did you acquire the input? 1= Cash 2= Credit 3= Others (explain)
Fertilizer	1. 2.			
Pesticides/Herbicides	1. 2.			

Table 5: Materials and Equipments used for coffee production in 2006/07 season
(Fill qn. 9&10 if qn. 8 is Yes)

8) Did you use machinery and equipments for the following activities in 2006/07 season?		9) Which machine/equipment did you use?(type)	10) What is status of the machine/equipment used? 1=Owned 2=Hired 3=Borrowed
i) Farm preparation	1= Yes 2= No		
ii) Planting	1= Yes 2= No		
iii) Weeding	1= Yes 2= No		
iv) Pruning	1= Yes 2= No		
v) Spraying	1= Yes 2= No		
vi) Transporting	1= Yes 2= No		
vii) Hulling	1= Yes 2= No		
viii) Drying	1= Yes 2= No		
ix) Storage	1= Yes 2= No		

Table 6: Labour capital for coffee production in 2006/07 season

Activity	Did you use hired labour? Y=Yes N=No	Costs (TZS)
Farm preparation		
Weeding		
Pruning		
Spraying		
Fertilizer application		
Mulching		
Terracing		
Harvesting		
Hulling		
Drying		
Transporting		

11) Which are other costs incurred besides hired labour in the 2006/07 season?

Activity	Costs (TZS)
Carrying equipments *example: sucks, buckets ect*	
Buying of machine/equipment *example: hoe, pruner, drying tray, drying mats ect*	
Hiring of Machine/equipment	
Repairing of machine/equipment	
Any deductions (explain)	
Transportation	

12) Which practices were done before the season 2004/05 and they are not practiced now? *i.e in coffee production and processing*

Practice	Reason(s) for not practicing

13) Which practices have been applied in coffee production and processing since 2004/05 season which were not practiced before?

Practice	Reason(s) for practicing

14) On your opinion what is the quality trend of the coffee you have been producing in the past three seasons (*since 2004/05 season*)?
1=Increasing 2=Decreasing 3= Same [ ]

15) Did you get any agricultural advice in the past three seasons (*since 2004/05 season*)?
1= Yes 2=No [ ]

16) If **qn 15** is **Yes**, who gave you the agricultural advice?

1) Extension officer
2) Private company agent (explain)
3) Neighbor [ ]
4) Stockiest (seller)
5) Other (explain)

17) Have you attended any **agricultural training seminar** since 2004/05 season?

1=Yes 2=No [ ]

18) If **qn 17** is **Yes**, who offered the agricultural training seminar?

Who offered?	What was the topic?

SECTION D: Coffee marketing in 2006/07 season

1) How much of the harvested cherry was sold in the 2006/07 season?.....kg

OR

How much of the harvested parchment coffee was sold 2006/07? .....kg

2) How many coffee buyers did you sell your coffee to in the 2006/07 season? (number)

Table 7: Coffee marketing in 2006/07 season

3) To whom did you sell your coffee? 1= Private Coffee Buyer 2= Kilicafe 3=Primary society 4= Others (explain)	4) In which form did you sell your coffee? 1=parchment; 2=cherry;	5) How much did you sell? kg	6) What was the price? (TZS/kg)		7) What was the mode of payment? 1=Cash 2=Credit 3=Others (explain)
			First price	Last price	
Buyer #1.....					
Buyer #2.....					
Buyer #3.....					

8) What was the price offered by the coffee buyer?: **Table 8**

Season	**Buyer** 1= Private Coffee Buyer 2= Kilicafe 3=Primary society 4= Others (explain)	**What was the price of parchment coffee (TZS/kg)**
2004	**Buyer # 1 .....**	
	Buyer # 2.....	
	Buyer #3	
2005	**Buyer #1 .....**	
	Buyer # 2.....	
	Buyer #3.....	

9) Did you get any loan/ credit in the 2006/07 season? 1=Yes 2=No [ ]

10) If qn. 9 is No, Why? (explain)

.....
.....
...

11) If qn. 9 is Yes, For which purpose?

.....
.....
.....

12) If qn. 9 is Yes, Where did you acquire the loan?
1=SACCOS 2=Bank 3=Neighbor 4= Others (Explain) [ ]

13) For the period you have been involved with your farmers' group which benefits have you acquired related with coffee production and processing?

1) Attending training courses
2) Getting farm inputs in an affordable price
3) Getting good coffee prices
4) Access to the market
5) Involving in other farmers' networks [ ]
6) Others (explain)

14) For the period you have been involved with your farmers' group which benefits have you acquired related with coffee production and processing?

1) Attending training courses
2) Getting farm inputs in an affordable price
3) Getting good coffee prices
4) Access to the market
5) Involving in other farmers' networks [ ]
6) Others (explain)

13) On your opinion what is the trend of your coffee income since 2004/05?
1) Increasing 2) Decreasing 3) Same [ ]

15) What are your suggestions in improving coffee industry in general?

.....
.....
.....

THANK YOU FOR YOUR COOPERATION

Appendix 8: Checklist of questions for KNCU and AKSCG

I: CHECK LIST OF QUESTIONS FOR KNCU

1) When did KNCU start selling coffee in Fairtrade market? (year)

2) When did KNCU get Fair trade certification? (year)

3) What are the conditions to get and maintain Fair trade certification?(mention)

4) Which are the Fair trade certification' costs have been incurred by KNCU?

5) What is/are source(s) of finance for Fair trade certification?

6) Is the KNCU Fair trade certified coffee goes through coffee auction or exported direct to the buyers?
1= Going through coffee auction 2= Exported direct to the buyer
3= Both [ ]

7) What is the quantity of coffee has been sold in FLO market in each of the above category during 2006/07season?

8) For **Qn.5&6**, what is the quantity of other certified coffee and uncertified coffee?

9) Do KNCU have specific FLO buyers for coffee? 1=Yes 2=No

10) Who are the FLO buyers of the coffee during 2006/07 season?

11) Who set coffee selling prices for FT certified coffee and by considering which factors?

12) What is the amount of the advanced payment the union got from buyers under Fair trade in every coffee season since acquiring certification?

13) What is the amount of total Fair trade premium paid to the union in every coffee season since acquiring Fair trade certification?

14) What is the amount of other premiums paid to the union in every coffee season since acquiring certification?

15) How long it takes to get the Fair trade premium after selling coffee?

16) Which factors determine the period/time of Fair trade premium payment?

17) How does KNCU use and distribute the Fair trade premium after selling coffee (i.e union and coffee producers)?

18) Are there any project(s) or activities which are financed by FLO? (mention)

19) Which benefits KNCU gets by selling coffee in FLO market? (mention)

20) Which constraints are encountered due to KNCU participation in Fairtrade? (Explain)

II: CHECK LIST OF QESTIONS FOR FARMERS AKSCG

1) When did AKSCG start selling coffee in Fairtrade market? (year)

2) When did AKSCG get Fair trade certification? (year)

3) What are the conditions to get and maintain Fair trade certification?

4) Which are the Fair trade certification' costs have been incurred as the farmers' association?

5) What is/are source(s) of financing for Fair trade certification?

6) Is the AKSCG Fair trade certified coffee goes through auction or exported direct to the buyers?
   1= Going through coffee auction 2= Exported direct to the buyer
   3= Both [ ]

7) What is the quantity of coffee has been sold in FLO market in each of the above category during 2006/07 season?

8) For **Qn.5&6**, what is the quantity of other certified coffee and uncertified coffee?

9) Do AKSCG have specific FLO buyers for coffee? 1=Yes 2=No

10) Who are the FLO buyers of the coffee during 2006/07 season?

11) Who set coffee selling prices for coffee sold in FLO market?

12) How AKSCG does set coffee selling prices under Fair trade system?

13) What is the amount of the advanced payment (pre-finance) the farmers' association got from buyers under FLO market in every coffee season since acquiring certification?

14) What is the amount of total Fair trade premium paid to the farmers' association in every coffee season since acquiring Fair trade certification?

15) What is the amount of other premiums paid to AKSCG in every coffee season since acquiring that certification?

16) How long it takes to get the Fair trade premium after selling coffee?

17) Which factors determine the period/time of Fair trade premium payment?

18) How AKSCG does distribute the Fair trade premium after selling coffee (i.e farmers' groups and producers)?

19) How AKSCG and farmers' groups use FT premium?

20) Which benefits AKSCG gets by participating in Fairtrade? (mention)

21) Are there any project(s) or activities which are financed by FLO? (mention)

22) Which constraints encountered by AKSCG due to its participation in Fairtrade?

23) How many farmers group does AKSCG have? And how many are selling their coffee under FLO market? (Total number)

24) How many farmers in total do these groups comprise of (average number)?

THANK YOU FOR YOUR COOPERATION

Appendix 9: Farmer groups at AKSCG, projects, and Fairtrade premium money

No.	FARMER GROUP	PROJECT	AMOUNT OF FT PREMIUM (TZS)
1.	Makunguru Kahawa Bora	- Construction of coffee storehouse at CPU	446,068.16
2	Bagamoyo Super Coffee Group	- Improvement of Centre Pulpery Unit (CPU)	2,700,000/=
3	Malala Kipololo	- Purchasing pulpery machine	10,050,535.52/=
4	Lilwambo Kahawa Bora	- Purchasing water tank for CPU. - Maintenance of CPU' ditches/trenches	336,991.49/=
5	Manena Group	- Construction of coffee storehouse. - Improvement of water project at CPU	676,957.91/=
6	Mkumbi Kahawa Bora	- Maintenance of coffee store house.	2,416,000
7	Umoja Ilela Kahawa Bora	- Construction of coffee storehouse at CPU	3,080,781.12/=
8	Mamtwa Kahawa Bora	- Construction of farmers group office	126,599.27/=
9	Mkoha Asili Kahawa Bora	- Purchasing timber machine	240,000/= * not approved
10	Tumani SCG – Matuta	- Improvement of water project	*not approved
11	Tujikomboe kahawa Bora	- Maintenance of farmers group office - Maintenance of CPU barn	925,981/=
12	Juhudi na Maarifa	- Construction of coffee storehouse - Construction of CPU barn	1,622,737.42/=
13	Jaribu Kahawa Bora Lunoro	- Purchasing coffee storehouse facilities - Purchasing Solar operating machine - Construction of frames/tables for drying coffee	3,397,792.76/=
14	Mkuhi Kahawa Bora	- Improvement of CPU - Construction of frames/tables for drying coffee	1,404,000/=

Source: AKSCG (2007)

Appendix 10: Coffee production and sales trend since 2001/02 season at Kilimanjaro Native Cooperatives Union (KNCU)

Season	Total production (Kg) (A)	Total sales (Kg) (B)	Direct Exports (Kg) (C)	Total Fair Trade (FT) Export (Kg) (D)	Export to FT (%) (D/B*100)	Export to FT (%) (D/A*100)
2001/02	2 252 797	1 743 984	1 236 240	535 996	19.35	23.79
2002/03	1 837 631	1 455 967	948 100	434 872	33.17	23.66
2003/04	1 797 272	1 401 826	619 741	350 456	46.43	19.50
2004/05	2 680 610	2 125 443	502 358	446 343	67.58	16.65
2005/06	1 526 394	1 140 163	376 668	392 050	67.58	25.68
2006/07	2 428 169	1 883 850	479 565	460 380	67.58	18.96

Source: KNCU (2007)

Appendix 11: Coffee production and sales trend since 2003/04 season at Association of Kilimanjaro Specialty Coffee Growers (AKSCG)

Season	Total production (Kg)	Auction (FAQ grade) (Kg)	Direct Export (Specialty) (Kg)	Total sales (Kg)	Total sales to FT (Kg)
2003/04	1 109 360	829 888	57 600	887 488	NIL
2004/05	1 990 247	1 400 197	192 000	1 592 197	NIL
2005/06	1 259 011	856 867	174 001	1 030 868	257 717
2006/07	1 647 752	908 077	442 714	1 350 791	288 785

Source: AKSCG (2007)

Appendix 12: Coffee production by type and region (Clean coffee) (in tones)

MBEYA MILD	RUVUMA MILD	IRINGA& RUKWA MILD	KIGOMA& KAGERA MILD	TANGA MILD	MORO MILD	TOTAL MILD	KGR H/ARB	MARA/ UKEREWE H/ARB	MORO H/ARB	TOTAL H/ARB	TARIME ROB	KGR ROB	TNG ROB	MORO ROB	TOTAL ROB	TOTAL HARDS	GRAND TOTAL
7255	4795	45	41	684	0	40954	3216	384	128	3728	0	10149	6	197	10352	14080	55034
6674	6475	46	16	834	0	38704	1328	252	116	1696	0	12460	10	53	12523	14219	52923
8757	3029	50	92	702	0	34064	1436	212	77	1725	0	11153	10	101	11264	12989	47053
7228	13147	64	104	433	0	43599	1524	287	182	1993	0	10733	3	144	10880	12873	56472
8515	5421	54	56	523	92	39836	2016	404	15	2435	0	11551	10	143	11704	14139	53975
7200	4257	96	49	847	29	27533	1607	419	84	2110	0	11738	5	111	11854	131964	4497
10765	8588	171	36	445	8	35716	2217	273	48	2538	0	10656	0	139	10795	13333	49049
9441	8719	190	97	869	19	43688	1333	451	93	1877	0	12038	3	145	12186	14069	57751
8142	7127	88	132	334	5	34659	1567	466	86	2119	0	16391	0	151	16542	18661	53320
5398	6224	97	49	554	5	31098	1447	461	68	1976	0	11659	0	110	11769	13745	44843
9747	8571	137	280	502	13	36065	1491	420	48	1959	0	5950	0	34	8984	10943	47008
9678	11523	103	35	294	12	44229	1900	486	32	2418	0	12923	0	4	12927	15345	59574
4708	4171	70	92	62	9	25709	1468	409	15	1892	0	6545	0	6	6551	8443	34152
7610	7455	46	418	0	48	26983	2050	440	4	2494	0	12986	0	8	12994	15488	42471
8135	10280	70	660	0	0	40345	1857	833	0	2690	0	9259	0	10	9269	11959	52304
5842	6200	42	221	632	0	29647	1105	845	59	2009	0	11912	0	47	11959	13968	43615
8702	5964	75	692	189	17	21204	182	889	40	1111	0	15497	0	0	15497	16608	37812
9544	9494	93	510	226	10	27485	3331	835	23	4189	0	14984	0	12	14996	19185	46670
10145	6173	105	736	236	0	31165	1089	2152	25	3266	2	13347	0	31	13380	16646	47811
12825	8711	217	585.13	425	0	37314.1	3032	809	0	3841	0	17020	0	0	17020	20861	58175.1
8145	5163	58	513.41	138	0	24665.4	1184	724	0	1908	0	11350	0	0	11350	13258	37923.4
10880	8377	224	680	374	12	29835	1602	781	0	2383	0	19215	0	0	19215	21598	51433
8748	6950	144	570	321	140	23187	600	442	0	1042	0	8260	0	0	8260	9302	32489
10977	5870	132	1081	208	60	29721	1350	1105	0	2455	0	24210	0	0	24210	26665	56386
9776	7055	193	573	174	9	24116	1006	356	0	1362	0	8856	0	0	8856	10218	34334
11605	9440	295.6	1131.2	227.2	0	30778.9		674.5	0	674.5	0	19663.5	0	0	19663.5	674.5	51116.9

Source: TCB (2007)