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TANZANIA COFFEE INDUSTRY VALUE CHAIN ANALYSIS

**PROFILING THE ACTORS, THEIR INTERACTIONS, COSTS,
CONSTRAINTS AND OPPORTUNITIES**

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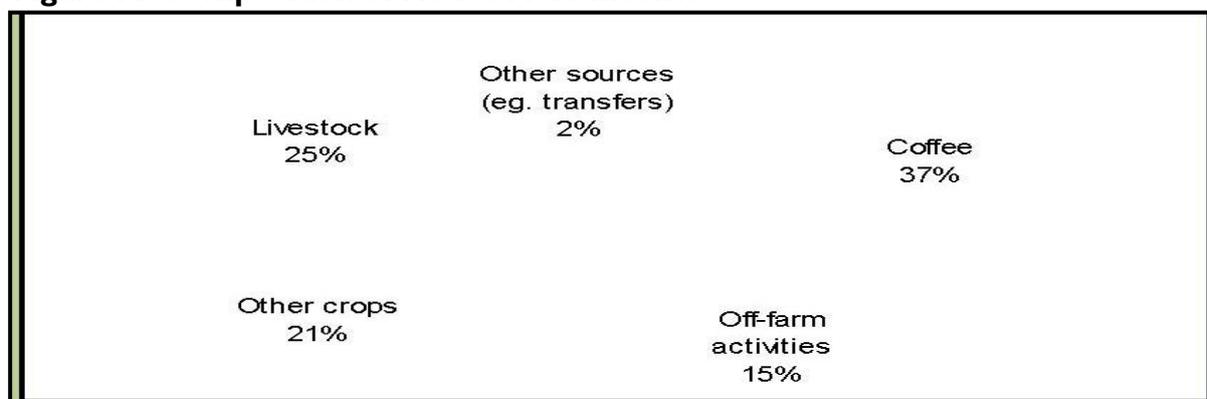
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1.0 Introduction

Recent macroeconomic literature indicates that coffee is Tanzania's largest export crop. It contributed some \$112 million to the country's export earnings in 2007/2008 and accounts for about 20% of Tanzania's foreign exchange earnings. Coffee has been the mainstay of the country's agriculture-based economy since its introduction as a cash crop around 100 years ago. Coffee production is concentrated in five main geographic areas of Tanzania, in the north (Kilimanjaro, Arusha and Tarime), in the west (Kigoma and Kagera) and south (Mbeya Iringa and Ruvuma).

Tanzania Coffee Research Institute (TaCRI) Annual Report of 2008 indicates that income from coffee production represents the highest income share of the household (37%) and, in some instances; coffee is the only source of cash income. Figure A below shows the composition of household income in 2008.

Figure A: Composition of House Hold Income



Source: Tanzania Coffee Research Institute (TaCRI) Annual Report of 2008

The share of household income from coffee is projected to increase further as a result of general price increases in the world market, improved coffee productivity, improved coffee quality and the launching of various initiatives that aim to link farmers to a variety of coffee markets.

2.0 Production

Tanzanian Coffee Board (TCB) estimates that over 400,000 households, with an average area of 0.5 -1.0 hectare, are responsible for 95% of the coffee production with the balance produced by over 110 estates. An estimated 2,000,000 additional people are employed either directly or indirectly in the industry.

As can be seen from Table A, Tanzania produced about 42,000 tons in 2007/2008 and for the past 15 years or so coffee production in Tanzania showed varying trends.

Table A: Tanzania Coffee Production 1999/2000-2007/08

Coffee Season	Production in Metric Tons
1999/00	47,900
2000/01	58,240
2001/02	36,200
2002/03	50,000
2003/04	48,000
2004/05	55,339
2005/06	34,554
2006/07	55,414
2007/08	41,578

Source: Tanzania Coffee Board

Since the mid-1990s, the country's coffee industry has been in a state of stagnation or decline. Coffee production moderately declined from the early 1990s to 1998 after which it gradually increased until 2003. Coffee area expanded significantly during the 1970s and 1980s when prices were more favorable but declined thereafter. From 1980/81 to 1998/99 coffee sales (equivalent to total output) declined from 61,514 tons to 41,578 tons.

TCB estimates that 275,000 hectares are under coffee cultivation, large private estates can yield up to 2500kg/ha with irrigation and fertilizers, while smallholders average 300kg/ha. Table B below illustrates the productivity levels.

Table B: Coffee Productivity Variables by Coffee Growing Zones

Variable	Northern high	Northern low	South	West	Total sample
Frequency of harvest	3.76	4.05	3.09	1.48	3.04
Yield/ha (kg)	330.40	433.60	937.80	667.20	591.3
Tree/ha (kg)	873.0	886.0	1962	389	1015

Source: Bureau of Agricultural Consultancy and Advisory Services (BACAS) Study-2005

2.1 Production Constraints

Evidence from several studies¹ in coffee growing areas in Tanzania associate low production/productivity with the following reasons: farms have few and old trees, and growers practice poor husbandry, high intensity of intercropping particularly with banana (in the North and West) which increases the risks for diseases, and lack inputs or insufficiently use of inputs such as fertilizers and chemicals and weather related problems.

TaCRI's 2008 annual report includes a study that identified a number of challenges for improving smallholder coffee farmers' incomes and welfare through increased coffee

¹ e.g. see GoT/EU/World Bank, 2003 and 2004 Baffes, 2003, Source: Bureau of Agricultural Consultancy and Advisory Services (BACAS) Study-2005

productivity, quality and profitability. Factors causing low coffee productivity and quality were listed as:

Low productivity is caused by:

- Low use of industrial inputs such as inorganic fertilizers.
- Most farmers use below the recommended rates; the average was 150 grams per tree in Mbinga and 50 grams per tree in Kilimanjaro. This is partly due to rapid increases in fertilizer prices rendering them unaffordable to farmers;
- Inefficient use of inputs when farm sizes are small;
- Low availability of improved coffee varieties;
- Pests and diseases;
- Insufficient support such as extension services have been found to be one of the root causes of low productivity;
- Poor crop management practices.

Factor	Percentage of Respondents
Low access to new varieties	61
Prevalence of pests and diseases Coffee Berry Disease (CBD) and Coffee Leaf Rust (CLR) for Arabica are major constraints decimating large amounts of the crop	97
Chemical input in affordability	54
Low application of inorganic fertilizers	70
Low access to markets	64
Low access to credit	75
Inadequate extension	60

Table C below summarizes factors associated with low coffee productivity and quality.

Table C: Factors Causing Low Coffee Productivity and Quality

Source: Tanzania Coffee Research Institute [TaCRI] Annual Report of 2008

Low quality is caused by:

- Poor crop management and unavailability of modern processing facilities such as mini pulperies.
- Mini pulperies ensure production of larger volumes of consistently high quality coffee.

Low profitability is caused by:

- Low coffee productivity and quality;
- Insufficient knowledge of Actual Unit Cost of production.
- Insufficient knowledge of pricing structure
- Inefficient marketing systems that do not guarantee premiums on quality;
- Low or absence of value addition.

2.1.1 Age of Trees

In a study conducted by Bureau of Agricultural Consultancy and Advisory Services (BACAS) published in 2005, the results showed that on average coffee trees were about 30 years old. Oldest trees were found in North (high elevation) and West coffee growing zones with average of 40 and 30 years respectively. Youngest trees (average of 22 years) were

recorded in the Southern coffee-growing zone.

Table D: Age of Coffee Trees in the Four Coffee Growing Seasons

Variable	Northern high	Northern low	South	West	Total
Mean age	39.8	34.2	21.9	22.8	33.9
Minimum age	0.5	1.0	1.0	0.5	0.5
Maximum age	200.0	100.0	70.0	100.0	200.0

Source: Bureau of Agricultural Consultancy and Advisory Services (BACAS) Study-2005

Table D above illustrates this challenge. The situation has not changed much in 2010 as majority of the trees have not been replaced².

2.1.2 Input Supply and Usage

During the 1970s and 1980s, chemical inputs were subsidized and supplied to growers through the cooperative system. The first reduction in input use became visible in 1992, when chemicals were supplied at market prices. After 1994, only a quarter of growers purchased inputs, primarily due to lack of credit. With the substantial decrease of power of the cooperative unions, credit became available to only a few creditworthy, usually large farmers.

A study by Bureau of Agricultural Consultancy and Advisory Services (BACAS) published in 2005 showed that only 16% of the respondents were using chemical fertilizer. Calcium Ammonium Nitrate (CAN) and UREA were mostly used of which more than 90% and 50% of the users were respectively from the Southern coffee growing zone. With respect to pesticides, the study noted that a number of agro-chemicals were sold per growing season. About 40% of the growers reported using different type of agro-chemicals. Highest proportion (>50%) of the growers using agro-chemicals was reported in North low and South coffee growing zones. In the West, use of agro-chemicals was almost nonexistent since only 0.7% of the respondents reported to be using it. Africa Coffee Academy rapid survey [2010, April] shows that the situation has hardly changed except for a very few selected farmer groups being supported by donor funded projects.

Lack of affordability of inputs at market price as shown in a recent study by TaCRI (2008 Annual report) remains the inhibiting factor hindering input use by growers. In order to increase farmers' input use, representatives of Ministry of Agriculture, Tanzania Coffee Board (TCB), Tanzania Coffee Association (TCA), and Tanzania Coffee Growers Association (TCGA) established the National Coffee Voucher Input Scheme (NCVIS) in 1997. However, vouchers in the form of forced saving schemes for the next season have not been universally preformed by all farmers. The Bureau of Agricultural Consultancy and Advisory Services (BACAS) study revealed allegations of side dealing of vouchers, complaints about unavailability of adequate inputs at stockiest shops or sale of expired or inefficient inputs. There are reports of voucher misuse involving side-selling, or not receiving of vouchers from private buyers or cooperatives.

Moreover, growers have reported not receiving inputs at the right time, receiving ineffective

² Interviews by Africa Coffee Academy, May, 2010

and out-dated inputs. A major critique of the system, however is that the vouchers are not sufficient to cover input needs of smallholders. Since vouchers are tied to the volume of parchment sold, small growers receive small volumes of inputs that have no real impact on their future production. This entirely predictable and “sustainable” use of inputs will only occur when an individual farmer “wants” to use them. He/she will then make every effort to be able to obtain and use inputs. Critical to this will be to ensure that credit and the right information on what inputs to use are available.

2.1.3 Extension Service

Until recently, the coffee sector had its own extension officers. Initially, cooperative unions employed the extension officers. Following nationalization of cooperative unions in 1971, extension officers were absorbed into district governments, and remained there even when the unions were re-privatized in 1994. Based on the logic that extension services play a key role in the sector, officers worked specifically for coffee farmers. However, in the recent past, the sector began to work with generalized agriculture extension agents. Institutional mapping revealed that in some divisions, extension officers trained as livestock officers were offering coffee related extension services. .

3.0 Internal Coffee Trading

In August 1993, the government passed a bill opening coffee marketing and production to the private sector, and further reduced government controls on pricing. The Coffee Board became responsible for coffee grading, issuing licenses and permits and operating coffee auctions. In 1994-95, private coffee buyers were invited to purchase coffee directly from growers.

Based on these changes, growers now have a choice of selling their produce through four marketing channels: Private Coffee Buyers (PCBs), Cooperative System, Farmer Groups, and Independent Primary Societies, that had split from the union system.

3.1 Constraints

The main constraint at this level is mixing of grades at buying due to inexperience of many traders, outright fraud and high competition over coffee because of processing over-capacity as we see in the next section.

4.0 Primary Processing

Primary processing takes place at the grower level. It involves handpicking of red cherries, pulping on the same day of picking, followed by washing, fermenting, drying and packaging. Prior to sale, farmers grade their coffee according to established grades. Wet processing is done in the north and south coffee growing zones where Arabica coffee is grown. Two types of primary processing practiced: Mild Arabica wet processed 65%. Robusta and Natural Arabica dry processed 35%.

Currently all primary coffee processing is done on farms with grower-owned equipment. Prior to independence, most primary processing was done centrally at union-owned pulperies, and the processing previously yielded higher quality coffee. Following independence, most facilities deteriorated. An effort to revive pulperies was undertaken in 1965 as part of an agricultural credit project (World Bank 1965). The attempt, however,

was unsuccessful, and eventually all primary processing moved to the farms, where it remains. Today, every coffee estate has its own primary processing facility (coffee pulping, washing and drying). Few privately owned facilities or facilities owned by farmers' groups exist.

4.1 Constraints

Following the collapse of the Central Pulping Unit (CPU), the growers process coffee on their farms where quality is inconsistent. According to a TaCRI study, 95% of the farmers interviewed responded that processing using hand pulpers was the biggest cause of poor quality³.

Coffee quality is essential for farmers to receive higher prices and gain market access. Farmers acknowledge the importance of quality. In practice, however, they do not take necessary measures that ensure high quality processing. The vast majority (90%), practice backyard processing which does not guarantee consistent production of large volumes of high quality coffee to meet market demands.

5.0 Secondary Processing

The secondary processing, curing or milling, is done in curing factories. Growers transport their produce either directly, or through primary societies. Most curing factories are owned and run by cooperatives but privately owned commercial coffee curing factories can now be found in all the growing regions. With secondary processing coffee remains the property of the producers—cooperative unions, farmer groups, private coffee buyers and estates—until it is presented to the TCB for auction or for direct export.

5.1 Constraints

5.1.1 Excess Processing Capacity

Processing capacity for coffee has substantially increased since 1994. Before 1988 there were only two union-owned coffee processing facilities: one in Moshi (Kilimanjaro region) which processed Arabica and one in Bukoba (Kagera region) which processed Robusta. Today, there are three private mills in Moshi each with processing capacity of roughly 2.5 tons per hour and a private mill in both Mbozi and Arusha each processing 1.5 tons of coffee per hour. In the south, a private mill in Mbeya can process an impressive 8 tons per hour. Finally, Mbinga boasts two private mills both with processing capacities of 2.5 tons per hour.

Total coffee processing capacity in Tanzania now exceeds 72 tons an hour—40 tons an hour for Arabica and 32 tons an hour for Robusta. To put this capacity into perspective, Tanzania's total coffee exports averaged 45,000 tons in 2007-2008, revealing that coffee factories operate on average at only 25% of installed capacity. There are two reasons for this excess capacity.

First, following the 1994 reforms, unions were unwilling to let private traders use their facilities, forcing traders to construct their own processing factories. Second, the new factories were built with improved technology while most of the pre-1994 coffee processing

³ TaCRI 2008 Annual Report, pg. 37

facilities continued to use old technology that was inefficient and yielded lower quality coffee.

Winter-Nelson and Temu (2002, p. 9) estimated, for example, that the new factories yielded four percent more processed coffee per unit of input and a much lower cost. These improvements implied a cost reduction of about 10 percent of the producer price. Finally, because most vertically integrated exporters were processing coffee in their own facilities, they could do it faster, reducing storage costs and exposure risk. After liberalization, more than a third of coffee was exported in the first three months of the season, compared with 15 percent before 1994.

6.0 Exports

6.1 Exporters

In 2008/2009 TCB registered over 65 exporters. These licensed exporters bid at government supervised auctions through the TCB. Direct exports is allowed only to farmers who satisfy TCB quality requirements and can prove higher export prices

Table E below shows the exports by each exporter for 2008/2009 season. The exporters highlighted in green participated in direct exports. As indicated in the table, direct exports represented 17.4% of the total coffee exports in 2008/2009.

Table E: Coffee Exports by Type and by Exporter 2008/2009 [60kg bags]

EXPORTER	MILD ARABICA	HARD ARABICA	ROBUSTA	SOLUBLE GBE	TOTAL BAGS	%
DORMAN	181,493	1,200	30,420	0	213,113	17.8%
TAYLOR WINCH	121,351	0	36,381	0	157,731	13.1%
MAZAO	120,189	1,500	13,428	0	135,117	11.3%
LOUIS DREYFUS	61,873	0	62,199	0	124,072	10.3%
OLAM	0	0	85,354	0	85,354	7.1%
KARAGWE ESTATE	0	0	79,114	0	79,114	6.6%
KPL	53,599	0	600	0	54,199	4.5%
KCU	0	2,171	44,170	1,017	47,358	3.9%
MAWENZI COFFEE	41,393	0	960	0	42,353	3.5%
SHERIFF DEWJI	26,927	2,166	11,160	0	40,253	3.4%
LIMA LTD	26,179	0	0	0	26,179	2.2%
ROMBO MILLERS	20,286	0	0	0	20,286	1.7%
KDCU	0	0	20,186	0	20,186	1.7%
AMIR HAMZA	300	0	18,335	0	18,635	1.6%
AKSCG	17,435	0	0	0	17,435	1.5%
ANDREW KAKAMA	0	0	13,933	0	13,933	1.2%
BURKA	13,650	0	0	0	13,650	1.1%
KNCU	13,172	a	0	0	13,172	1.1%
MARA COFFEE	0	12,684	0	0	12,684	1.1%
COFFEE EXPORTERS	10,927	0	0	0	10,927	0.9%
A.C.C.	10,687	0	0	0	10,687	0.9%
REGAL CROP	0	0	9,197	0	9,197	0.8%

TANCOF	0	0	7,500	0	7,500	0.6%
TUDELEY	5,265	0	0	0	5,265	0.4%
ARUSHA COOP UNION	0	0	3,600	0	3,600	0.3%
KANYOVU GROUP	3,000	0	0	0	3,000	0.2%
MCCCO LTD	2,880	0	0	0	2,880	0.2%
KANJI LALAJI ESTATE	1,280	990	0	0	2,270	0.2%
SHANGRI LA	1,600	0	0	0	1,600	0.1%
BLUE MOUNTAIN	1,262	0	0	0	1,262	0.1%
M'RINGA ESTATE	1,147	0	0	0	1,147	0.1%
ARAB GLOBE INT.	0	660	330	0	990	0.1%
KJRO NEW COOP I JV	900	0	0	0	900	0.1%
UTENGULE	899	0	0	0	899	0.1%
NAKARA EXPORTERS	668	0	0	0	668	0.1%
LUNJI ESTATE	608	0	0	0	608	0.1%
LGA	570	0	0	0	570	0.0%
NGILA ESTAE	466	0	0	0	466	0.0%
MUFINDI TEA CO.	320	0	0	0	320	0.0%
ACACIA HILLS	317	0	0	0	317	0.0%
FINAGRO PLANTATION	160	0	0	0	160	0.0%
MERU SPECIALITY	150	0	0	0	150	0.0%
KIUKAMU	117	0	0	0	117	0.0%
SHAH PLANTATION	116	0	0	0	116	0.0%
EIDELWEISS	107	0	0	0	107	0.0%
RIFT VIEW ESTATE	20	0	0	0	20	0.0%
ASU CO. LTD	0	0	0	0	0	0.0%
NITIN ESTATE	0	0	0	0	0	0.0%
HIGH GROWN DEV. CORP	0	0	0	0	0	0.0%
VALHALA ESTATE	0	0	0	0	0	0.0%
TANICA	0	0	0	0	0	0.0%
KCD	0	0	0	0	0	0.0%
TOTAL	741,312	21,371	436,865	1,017	1,200,566	
	61.7%	1.8%	36.4%	0.1%	100%	
				DIRECT EXPORTERS	209,394	17.4%

Source: Tanzania Coffee Board

Like other countries in the region there is concentration at the export level with the first four companies exporting over 53% of total while ten exporters are responsible for 83% of auction volumes

6.2 Destination

Table F below shows the countries that import Tanzanian coffee. Europe is the main importer led by Germany but Japan was the biggest single importer in 2008/2009.

Table F: Coffee Exports by Type and by Destination 2008/2009 (60kg bags)

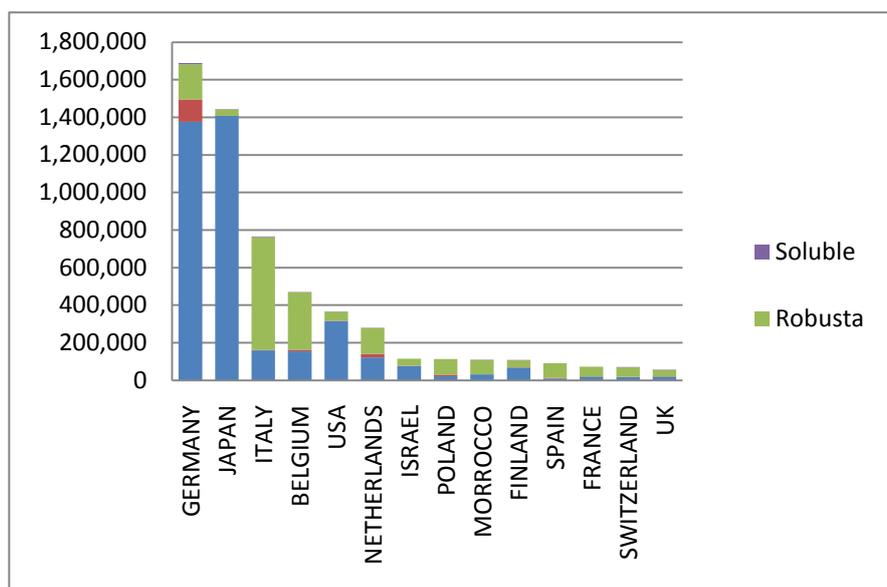
DESTINATION	MILD ARABIC A	HARD ARABIC A	ROBUST A	SOLUBLE (GBE)	TOTAL BAGS	%
JAPAN	315,235	150	23,328	5	338,718	28.2%
GERMANY	144,944	16,673	42,856	450	204,923	17.1%
ITALY	41,044	0	144,888	0	185,932	15.5%

USA	72,821	0	37,963	0	110,784	9.2%
BELGIUM	27,733	891	46,639	135	75,398	6.3%
FINLAND	22,180	0	6,076	135	28,391	2.4%
NETHERLANDS/HOLLAND	23,091	841	3,630	225	27,787	2.3%
ISRAEL	16,709	0	6,930	0	23,639	2.0%
RUSSIA	18,066	0	600	0	18,666	1.6%
POLAND	3,230	0	13,837	0	17,067	1.4%
ALGERIA	920	0	12,930	0	13,850	1.2%
MOROCCO	2,560	0	15,270	0	17,830	1.5%
SPAIN	3,185	308	11,387	0	14,879	1.2%
ESTONIA	11,620	0	0	0	11,620	1.0%
TUNISIA	0	0	31,867	0	31,867	2.7%
UK	2,757	0	10,120	0	12,877	1.1%
FRANCE	4,688	0	7,198	0	11,886	1.0%
AUSTRALIA	3,811	0	626	0	4,437	0.4%
PORTUGAL	1,900	0	4,560	0	6,460	0.5%
ROMANIA	0	0	3,200	0	3,200	0.3%
LATVIA	3,200	0	0	0	3,200	0.3%
NORWAY	1,600	0	3,960	0	5,560	0.5%
TURKEY	1,716	947	300	0	2,963	0.2%
DENMARK	3,449	300	499	0	4,248	0.4%
SOUTH AFRICA	1,802	300	1,565	0	3,667	0.3%
CANADA	2,165	0	0	0	2,165	0.2%
SWITZERLAND	0	0	1,800	0	1,800	0.1%
SOUTH KOREA	1,798	0	0	0	1,798	0.1%
BULGARIA	960	0	2,010	0	2,970	0.2%
CHINA	2,443	0	0	0	2,443	0.2%
SWEDEN	1,080	0	150	0	1,230	0.1%
SINGAPORE	895	300	257	0	1,452	0.1%
EGYPT	555	0	520	0	1,075	0.1%
GREECE	538	0	600	0	1,138	0.1%
IRELAND	0	0	1,300	0	1,300	0.1%
SYRIA	640	0	0	0	640	0.1%
INDONESIA	1,200	0	0	0	1,200	0.1%
KENYA	458	0	0	0	458	0.0%
LIBYA	0	660	0	0	660	0.1%
INDIA	320	0	0	0	320	0.0%
HUNGARY	0	0	0	68	68	0.0%
NEW ZEALAND	0	0	0	0	0	0.0%
TOTAL	741,312	21,370	436,865	1,017	1,200,564	100%
	61.7%	1.8%	36.4%	0.1%	100%	

Source: Tanzania Coffee Board

Figure B shows the exports by country and coffee type of aggregated exports since 2001/2002 to 2008/2009.

Figure B: Coffee Exports by Type and by Destination 2001/02 -2008/09 (60kg bags)



Source: Data, TCB; Calculations by Africa Coffee Academy

From the graph, it is evident that most of the mild Arabica is exported to Germany, Japan and the US and Italy takes most of the Robusta.

7.0 Tanzania Coffee Value Chain Participants

The three coffee markets are:

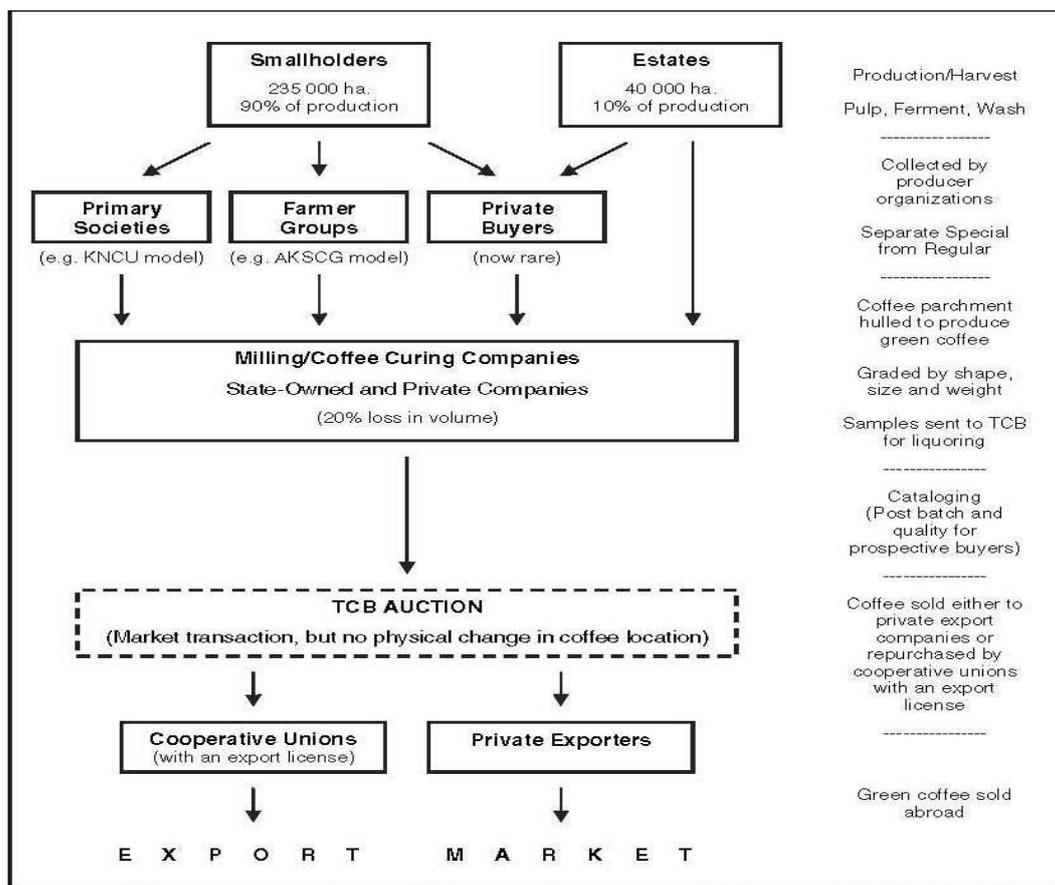
- 1.) **Internal market:** where farmers sell at farm gate price to private coffee buyers, farmer groups and cooperatives. Coffee is sold in the form of cherry or parchment.
- 2.) **Auction:** Coffee auctions are conducted each week on Thursdays during the season (usually 9 months). Licensed exporters come to the auction and buy coffee from suppliers— individual farmers, groups and cooperatives or private buyers.
- 3.) **Direct export:** Growers of premium top grade coffees are allowed to bypass the auction and sell their coffee directly. Direct export enables growers to establish long-term relationships with roasters and international traders.

Private buyers and cooperatives collect roughly equal volumes and together, account for 80% of the market while estates account for the other 10%. Dependence on private buyers is higher in the southern and western coffee growing zones than in the northern zone. Some farmers still prefer to sell coffee through cooperative unions because of the prospect of receiving a second payment. The prospect of receiving a second payment and price are strong factors in the choice of marketing channels.

Before the 2003 season, two-thirds of private buyers were vertically integrated exporting companies that bought coffee from the growers, processed it in their own factories, and exported it themselves. However since the one license rule exporters are generally no longer connected to buyers. Currently they are four different qualities of coffee purchased from farmers: red cherry and dry parchment for the mild (washed) Arabica and dry cherry and Home Hulled for the natural (hard) Robusta and Arabica. Similarly, most exporters are

no longer directly connected to coffee curing factories. If exporters own the factories they are operated separately as ‘commercial coffee curing factories’.

Figure C: Tanzania Arabica Coffee Supply Value Chain Flow Matrix



Coffee auctions are now fully transparent. Identities of the producers/owners are public and fierce bidding occurs for all the lots.

A union might try and use an auction to bypass direct export procedures, referred to as “re-possession.” “Re-possession” might still occur when a union participates in an auction rather than via the cumbersome and time consuming export process.

8.0 Tanzania Arabica Coffee Value Chain Costs

TaCRI monitors the economics of coffee production. In the 2008 Annual report, the total variable cost per kilo of green was cited at US\$0.84 for smallholders. Results indicate that coffee is still a profitable cash crop: an average profit of \$242 per hectare of traditional varieties was recorded. Moreover, returns from improved coffee varieties are three times that of traditional varieties.

This difference, according to TaCRI report, is attributed to the higher productivity of new varieties (900 grams per tree on average for smallholders compared to 330 grams per tree for traditional varieties) and low production costs of disease resistant improved varieties. Results in Table G show gross margins for traditional coffee varieties, still the majority.

Table G: Arabica Coffee Supply Value Chain Costs in US\$ 2007/2008 - Smallholder

Cost Lines	Details	US\$	
Variable Production Cost per Kg [green equivalent]		0.84	
	Sub-total	\$0.84	
Yield/ha/year Kg [Small Holder North Tanzania]	330kg/ha		
Total cost/kg of green		\$0.84	
Average farm gate price/kg of green		\$1.57	62%
Arabica coffee grower's margin/kg of green		\$0.73	
Gross income/ha/year		\$519.57	
Net income/ha/year		\$242.37	
Arabica Auction Costs US\$/Kg		US\$	
Collection costs	17.5% of Auction Price	0.38	
Milling Fees	3% of Auction price	0.06	
Export Bag	1.5% of Auction price	0.03	
District Levy	5% of Auction price	0.11	
Sub-total Arabica Auction Costs US\$/Kg		0.59	
Auction Price/kg		\$2.16	85%
Export Costs			
Transport	3.6% of export price	\$0.09	
Clearing and forwarding	3.15% of export price	\$0.08	
Warehouse Costs	1.2% of export price	\$0.03	
Interest [Cost of Money]	3.15% of export price	\$0.08	
Total Exporter costs		\$0.28	
Export price US\$/kg [Average export price for Mild Arabica]		\$2.54	100%
Gross Margin to Exporter		\$0.10	
Less (1.2%) Tax		1.2% of export price	\$0.03
Net margin [2.7%]		2.7% of export price	\$0.07

Data Source: Tanzania Coffee Research Institute, Tanzania Coffee Board, Tanzania Coffee Association; Calculations by Africa Coffee Academy

For Mild Arabica, the auction price was 85% of the average export price for the whole season, from this, 62% is for the farmer to pay for the cost of growing the coffee and his margin. After auction, the district took 5% in 2007/2008 –equal to 7% of what the farmer received (farm gate price).

Collection fees equal 17.5% of the auction price, which is quite high. These are costs of Primary Societies, Unions (Ushirika), and Private Coffee Buyers. The system is complicated and therefore expensive. Milling costs and export bag costs are moderate (export bags have no VAT).

Poor infrastructure makes costs high for exporters. A good railway system would reduce the cost of transport by half. Moreover, delays are frequent in clearing and forwarding due to congestion and complicated procedures.

9.0 Opportunities in the Tanzania Coffee Industry

9.1 Premiums for Consistent Quality

Tanzania produces high quality coffee. However, poor processing results in poor quality beans that end up being sold in the highly volatile blended coffee market.

Over 97% of Tanzanian Arabica varieties are washed. In fact, in 2008/2009; over 99% of Arabicas were washed, signaling an important potential in terms of quality of the cup. However, of the Arabicas that are washed over 89% is done at home using hand pulpers and only 13% at central pulperies. Hand pulpers are responsible for the decline in coffee quality in Tanzania.

Figure D below shows that prices for the best Arabicas from North Tanzania are comparable to those in New York City. Note the low points which poor quality coffee. Consistently good quality Tanzanian coffee should be selling much higher than NYC, like the Kenyan coffee. Figure E further below illustrates this opportunity.

Figure D: Comparison New York Vs Auction Price 2008-2009

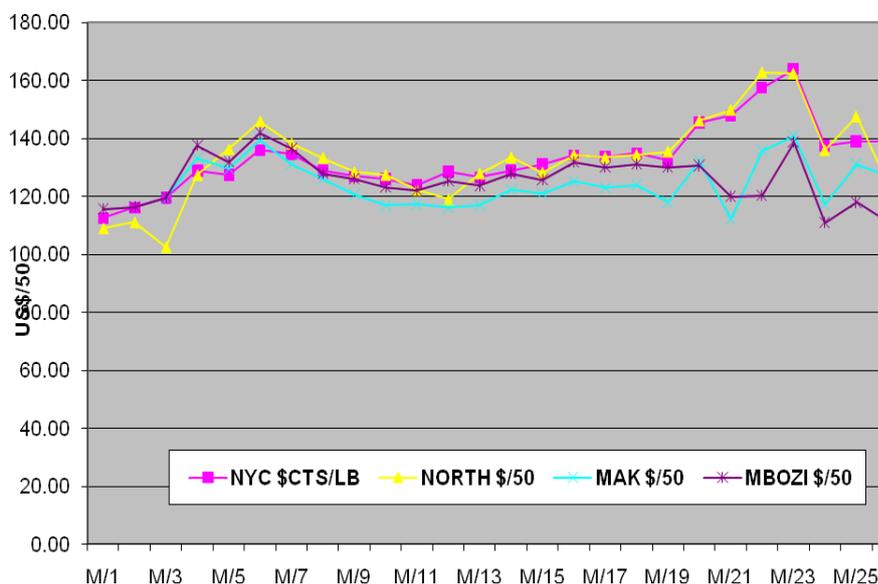
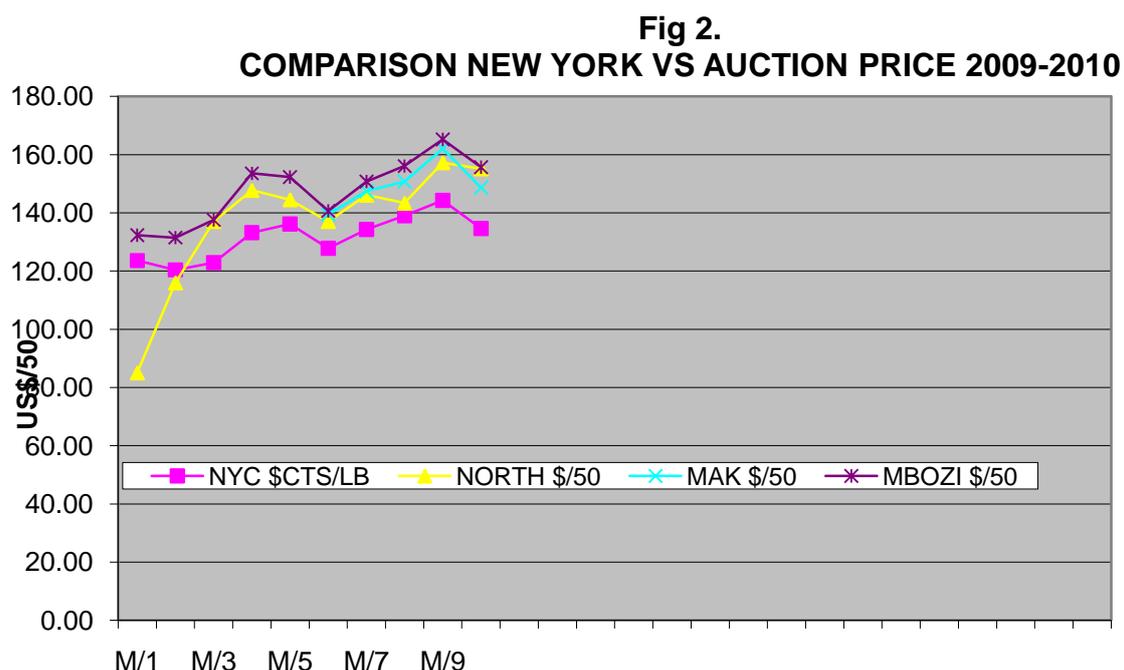


Figure E shows the price comparisons for 2009 – 2010. Auction prices are now higher than New York price. Due in part to a projected small crop higher auction prices also suggest improved quality, particularly from the South. Higher prices in Mbozi and Makambako might be explained by greater volumes of coffee processed at Central Processing Units [CPU] rather than the hand pulpers.

Figure E: Comparison New York Vs Auction Price 2009-2010



6.2 More Volumes- Productivity

Tanzania has the climate and altitude to produce specialty Arabica coffee that attracts premium world market prices. Trees are old (up to 70 years old) and yields are among the lowest in the world. Table H below shows the auction by grades for two seasons and the potential in terms volumes of specialty for grades AA, A and PB.

Table H: Tanzania Coffee Auctions by Grades 2007/2008 and 2008/2009

2007/2008			2008/2009		
Washed Arabica	Total [60kg] Bags	%-Age Share	Washed Arabica	Total [60kg] Bags	%-Age Share
AA	109,945	19.6%	AA	160,005	29.9%
A	81,082	14.5%	A	124,721	23.3%
B	78,114	13.9%	B	114,439	21.4%
PB	33,808	6.0%	PB	42,148	7.9%
AF	6,976	1.2%	AF	9,908	1.9%
TT	9,310	1.7%	TT	12,361	2.3%
C	20,469	3.6%	C	33,546	6.3%
E	1,986	0.4%	E	2,069	0.4%
F	16,943	3.0%	F	18,009	3.4%
UG	8,384	1.5%	UG	14,882	2.8%
TEX	696	0.1%	TEX	1,389	0.3%
HP	1,209	0.2%	HP	1,682	0.3%
REJECT	-	0.0%	REJECT	0	0.0%
Sub Total	368,920	65.8%	Sub Total	535,158	63.0%
Hard Arabica			Hard Arabica		
SUPERIOR	190	0.0%	ORGANIC	191	1.8%

FAQ	13,255	2.4%	SUPERIOR	0	0.0%
UG	1,256	0.2%	FAQ	8,905	84.4%
			UG	1,453	13.8%
Sub Total	14,511	2.6%	Sub Total	10,548	1.2%
Robusta			Robusta		
ORGANIC	4,382	0.8%	ORGANIC	6,509	2.1%
OVER SC 18	14,128	2.5%	OVER SC 18	11,174	3.7%
SUPERIOR	74,714	13.3%	SUPERIOR	76,445	25.1%
FAQ	68,663	12.2%	FAQ	162,896	53.5%
UG	15,482	2.8%	UG	47,242	15.5%
REJECT	24	0.0%	REJECT	0	0.0%
Sub Total	177,392	31.6%	Sub Total	304,266	35.8%

Source: Tanzania Coffee Board

The biggest opportunity is the specialty coffee volumes available in Tanzania. Grades AA, A and PB which can produce cups of specialty using the SCAA score sheet, constituted 61% of all coffee exports in 2008/2009 (with direct sales of 12,564mt which were all AA, A and PB). If productivity doubled to 600 kg/ha for smallholder farmers, production could reach 60,000 metric tons of specialty coffee. Currently out of the potential 32,000 metric tons, probably only 7,000 tons are selling as specialty.

9.3 Direct Sales- Relationships

Before 2004, the Tanzanian Government controlled all coffee exports through a government-owned and operated auction. Beans were not controlled for quality, and farmers and processors were not always rewarded high prices for quality. Following changes in regulations in October 2003, specialty coffee producers had the option, for the first time, to bypass the government auction and sell directly to roasters.

This is an opportunity because it brings about increased producer control and accountability in negotiations with international buyers. In March 2004 KILICAFE made their first direct export sale to Peet's, of 176 bags (23,280 pounds) of Tanzanian specialty coffee. This sale allowed the farmers of the cooperative to earn a price 150% greater than the other growers in their area, and it allowed Peet's to produce a specialty "Africa Blend" in 2004 and later a limited-edition specialty roast called "Tanzania Kilimanjaro" in 2005⁴.

⁴ http://www.technoserve.org/news/AKSCG_TZ.htm

Table I: Exports by Type and Method 2004/2005 – 2008/2009

Coffee Season	2004/05	2005/06	2006/07	2007/08	2008/09
Quantity Washed Arabica [MT] (Mild Arabica)	29,614	29,791	32,355	30,261	44,479
Quantity of Dry processed Arabica [MT] (Hard Arabica)	1,768	837	1,515	1,012	1,282
Quantity of Exported Robusta [MT]	13,130	13,458	16,521	13,437	26,212
Quantity of Soluble [GBE]	319	330	257	51	61
Total Exports	44,831	44,416	50,648	44,761	72,034
Direct Exports	1,886	2,339	4,125	7,918	12,564
Percentage of Direct Exports Vs Auction	4.2%	5.3%	8.1%	17.7%	17.4%

Source: Tanzania Coffee Board, Tanzania Coffee Association

Table I above shows the growing volumes of direct sales which window provided an opportunity for relationships and better premiums for specialty coffees

10.0 Conclusions and the Way Forward

Coffee is an important industry for Tanzania, providing employment to more than 400,000 smallholder farmers and contributing \$115 million to export earnings, making coffee the largest export earner. Financial difficulties of the unions and the sharp decline in coffee prices in 1992 left only one feasible solution: policy reform. Although some changes were introduced as early as 1990, the full reform package was not introduced until 1994, when the private sector was allowed to market and process coffee. However, the reform process has been neither entirely successful nor complete. If the coffee sector is to reach its full potential, priority should be given to the following additional reforms and interventions:

- **Taxes** should be further reduced, the tax code should be simplified, and taxes should be consolidated, rationalized and made uniform across all exports (crops and merchandise). That will introduce a more equitable distribution of the tax burden and help to induce a supply response in the coffee sector.
- On **production**: Improve yield through rejuvenating old trees by stumping and replacing unproductive trees and new coffee growing areas with new (trees,) and high-yield and disease-resistant varieties, improved husbandry, agronomic management, intensified extension, access to credit including inputs, capital investment and farmer education on minimum size of farm in expansion areas. Given the above observation, it is also important to intensify efforts to develop specialty coffee (gourmet and organic) since the greatest potential for Tanzania's future coffee market is in specialty coffee. This is a challenge to the industry which can be addressed through promotional activities, farmer training, support to farmer groups and research as pilots of Technoserve have shown.

- **Extension:** while it is clear that extension officers are not adequate and cannot be recruited to cover all coffee producing villages in the near future, it is important to promote and strengthen farmer groups approach to give them “greater voice on matters affecting them”, to be able to take advantage of economies of scale, quality and explore alternative marketing channels for better prices.
- **Processing and quality:** Increasing processing at wet mills (CPUs) rather than using hand pulpers and making wet milling efficient would significantly raise farmer incomes. The challenge is to mobilize farmers into groups or primary societies and assist them with modern processing facilities, and to institute policies including quality inspections to ensure that coffee buyers are consistently purchasing a high quality product. Otherwise, smallholder coffee farmers will continue hearing about good coffee prices and not accessing them.