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**SUSTAINABILITY STANDARDS AND COFFEE EXPORTS
FROM TANZANIA**

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Abstract

One of the key trends characterizing agro-food trade in the last two decades has been the increasing complexity of public and private standards that are applied to imports into developed countries. This paper aims to identify critical areas to facilitate compliance with sustainability standards in coffee, which is the major traditional export crop for Tanzania. Coffee experienced a dramatic downward trend in world market prices that led to a decreased contribution to foreign exchange earnings in producing countries in the early 2000s. Although prices have improved over the past few years, economies that are dependent on traditional agricultural exports such as coffee need strategies to ensure stability in export earnings. One of the possible venues for increased agricultural export value is through exports to niche markets, such as coffee that is certified against one or more sustainability certifications (e.g. Fair Trade, Utz Certified, Organic, and Rainforest Alliance).

For this reason, a survey was conducted with key actors (producers, processors, and exporters) in the Tanzanian coffee sector to assess compliance to the Utz standard – the fastest growing sustainability standard in the coffee sector. This paper reviews the key trends in relation to sustainability standards in coffee, a profile of (and the main challenges faced by) producers that comply with the Utz standard in Tanzania, and the perceptions of those producers who have not yet attempted certification. It provides a first, qualitative, reading of the survey findings, which will be followed up by a more rigorous quantitative assessment of costs and benefits. The findings provided here show that so far only large-scale coffee producers have managed to meet the costs of compliance with the Utz standard in Tanzania; they also show that the rate of growth of Utz-certified coffee sales from Tanzania is quite low, even when compared with neighbouring Uganda and Kenya. High costs of certification and the perceived inadequateness of price premiums on certified coffee were identified as the most limiting factors against compliance.

Strategic awareness creation and support services on coffee standards are required among all actors in the coffee sector in Tanzania to meet current consumer demands on social and environmental concerns. Therefore, the coffee sector regulatory system should provide an institutional guide on coffee standards. It should also stimulate discussion among smallholder organizations, such as farmer groups and primary cooperative societies, on whether Utz certification should be attempted. Continued research on sustainability standards is also needed to inform actors in the sector on critical emerging issues that affect demand, supply, and prices of coffee.

I. Introduction

One of the key issues in agricultural trade in the last two decades has been the increasing complexity of public and private standards, which can affect exports from developing countries. This paper aims to identify critical areas in relation to sustainability standards compliance in coffee, which is the main traditional export crop for Tanzania. In the last two decades, there has been a tremendous fall in prices for traditional agricultural export crops in the world market. The price of coffee, for example, reached the lowest level ever recorded in real terms between 2001 and 2002 (see Figure 1 for nominal prices). This took place partly due to structural changes in the global coffee market, including production innovation in Brazil and booming supply from Vietnam, and partly due to changes in corporate strategies among the largest roasters, including the way in which coffee is blended (DTIS 2005; Daviron and Ponte 2005).

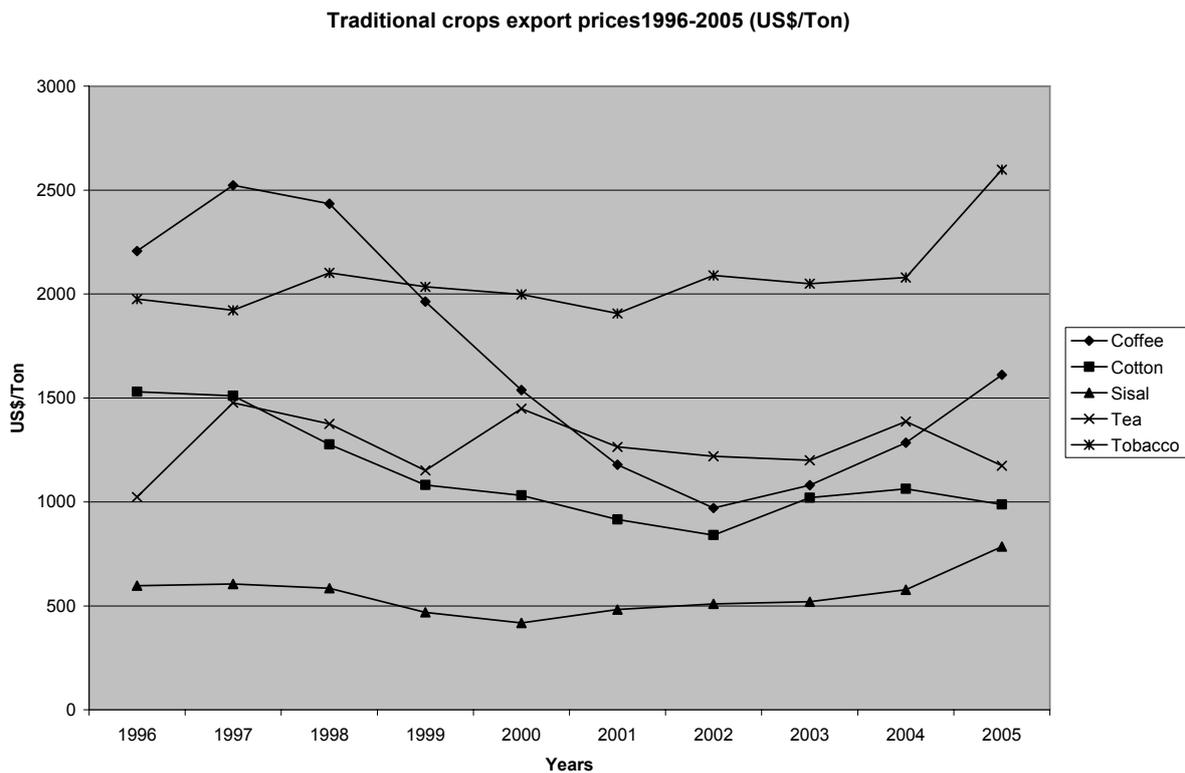


Figure 1: Traditional crops export prices

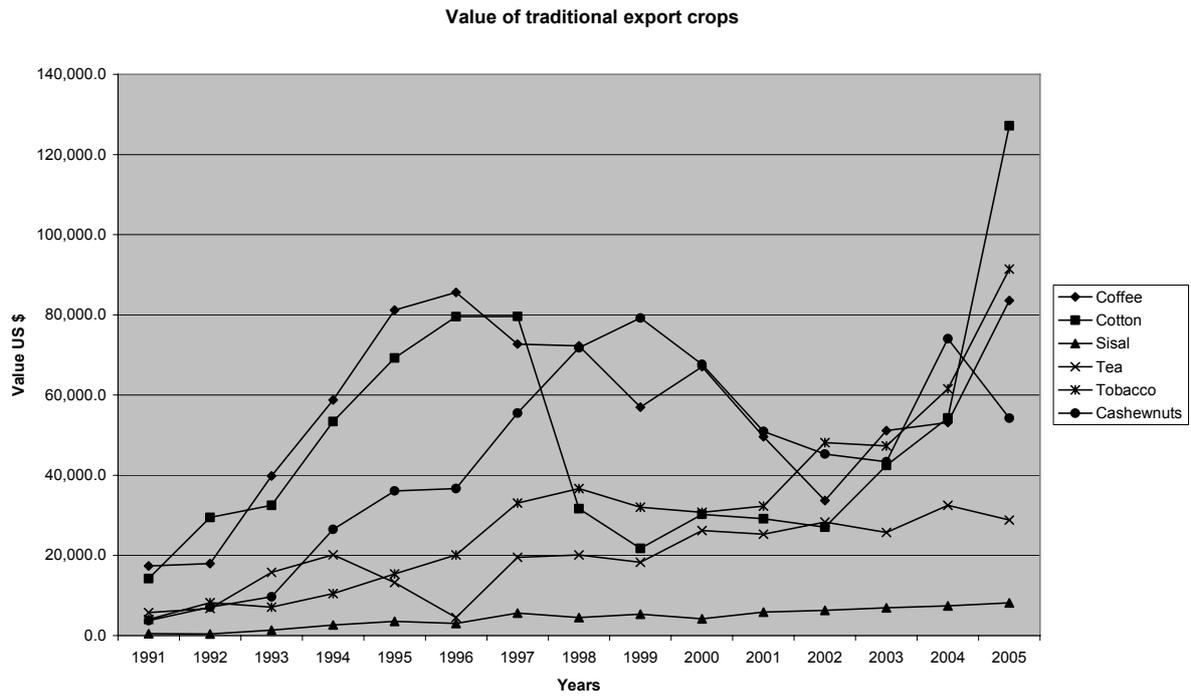


Figure 2: Value of traditional export crops from Tanzania

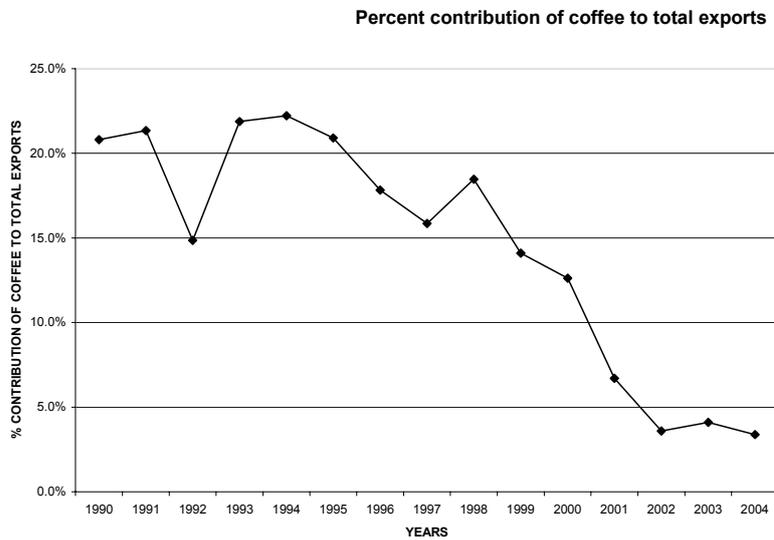


Figure 3: Proportional contribution of coffee to total exports (by value)

In Tanzania, the fall in prices of traditional export crops resulted in a major decline in the value of exports (see Figure 2). Coffee’s contribution to total exports dropped in a particularly dramatic

way (see Figure 3). These trends led to a general decline in the contribution of the agricultural sector to GDP and to lower rates of growth of the agricultural sector compared to other sectors in the Tanzanian economy (Figure 4). This is partly because of the low productivity and low value of agricultural exports, and partly because of higher growth in other sectors such as mining. But sectors such as mining, in comparison to agriculture, have a lower impact on poverty reduction and on the incomes of the majority of the Tanzanian population (URT, 2005). The 2000/01 household budget survey data shows that about 67 percent of the poor depend on sales of crops (export and food crops) as their main source of cash income (URT, 2002).

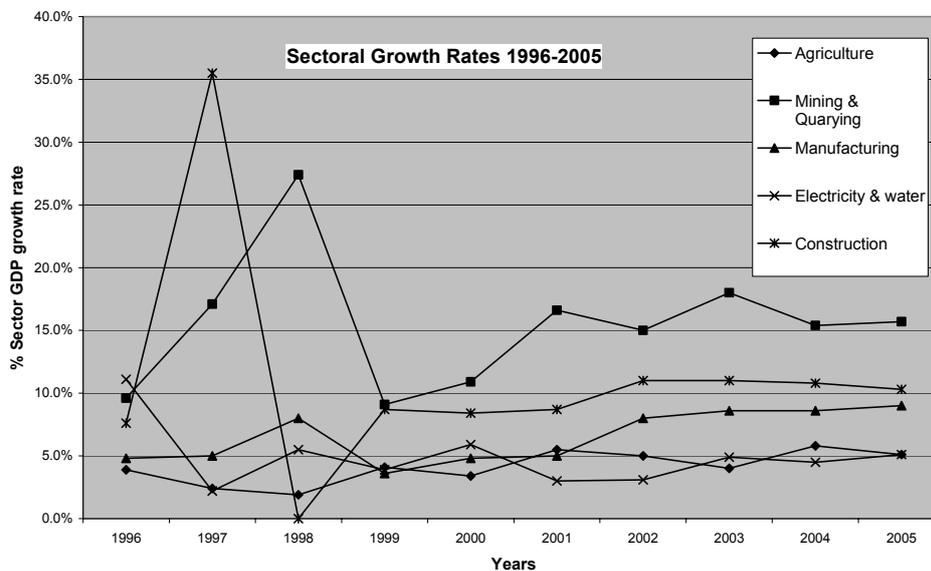


Figure 4: Sector growth rates in Tanzania

One of the possible venues for increasing the value of agricultural exports from developing countries is through sales to emerging, niche and value-added markets such as specialty, fair trade, organic, and Utz-certified coffee. Although the market for specialty coffee is relatively small in relation to the total volume of the global coffee market, it is growing fast and is gaining substantial appeal among consumers (Ponte, 2004). However, to be able to access the export markets for specialty products, developing countries have to overcome the challenge of complying with standards, including sustainability standards.

This paper provides a qualitative analysis of the costs and benefits of Utz certification, the fastest growing sustainability standard in coffee. It highlights the challenges faced on the road to certification and the perceptions of those producers who have not yet attempted certification, together with a discussion of possible strategies for smallholders to enter this market. The paper is structured around three key questions:

1. What is the extent of conformity to Utz-certified standards and what are the characteristics of exporters that conform to these standards?
2. What are the exporters' and producers' costs and benefits for the existing level of conformity?
3. What are the major research and policy issues that need to be addressed in promoting compliance to sustainability standards as a means of improving access to international markets?

The paper is organized in seven sections. The second section deals with issues of standards that have an impact on developing countries. Section three provides an overview of sustainability standards in coffee. Section four examines the experiences with Utz certification in Kenya and Uganda. Section 5 does the same, but more in detail, in relation to Tanzania. Section six presents the perceptions of costs and benefits of certification that were gathered among certified and non-certified actors, and the main related challenges. Section 7 concludes and provides some policy recommendations.

2. Standards and developing economies

A standard is an agreed way of doing something. Standards are designed to address a wide variety of needs and goals. Formally or informally, they can be applied to products, services or processes to promote safety and ethical commitment; compatibility and efficiency, and effectiveness and ease of use. There are many ways by which standards are classified. However, broadly speaking, standards can be categorized as private, mandatory, and voluntary (Ponte, 2005). Standards are classified as private, when they are designed for use only by the organization that developed them. Mandatory standards are compulsory, usually set by governments in the form of regulation. Voluntary standards are non-obligatory standards set by NGOs, industry associations, and/or multi-stakeholder initiatives.

Stringent standard requirements in industrialized countries pose major challenges for continued access of developing countries to international markets. 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 (Nadvi, 2002). Therefore, standards can act as institutions that shape both markets and market agents (Antonelli, 1997). Nevertheless, complying with new standards entails costs, benefits, and changing levels of risks and uncertainty.

Ponte (2004) argues that the management of standards is influenced by competition and/or cooperation between the actors involved in the supply chain, who have neither complete access to – nor control of – information on a product and its production and process methods. Pollard et al. (2003) show that the European Union (EU) regulations on pesticides, market grade standards, traceability, general hygiene on foodstuffs and other standards exert an increasing influence on agricultural exports in developing countries. 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 (Graffham and Vorley, 2006). The World Trade Organization (WTO) environmental database indicates that the share of environment-related standards and technical regulations as a percentage of all technical barriers has grown from 10 percent in the early 1990s to 15-16 percent in the 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.

Environmental concerns are becoming important components of agro-food standards. Food safety criteria are increasingly combined with requirements for the promotion of environmentally-sustainable production methods. But producers and businesses' adjustments needed for compliance have many cost implications. Compliance can also offer opportunities for benefits in terms of reduction in undesirable effects to the environment and improvements in health effects on workers. The challenge in assessing the costs and benefits of compliance to a sustainability standard is that the measurability of environmental and social impacts is not as direct as the income effects are. Environmental impacts are indirect and long term in nature. As much as positive environmental effects are desirable and important for developing countries, impacts on income and social status would be a priority in their standards agenda.

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).

3. Sustainability standards in coffee

Growing consumer concern about food production methods and the impact on poor people and the environment have translated into various standards in the coffee sector that seek to meet these demands. Standards that influence or relate to the sustainability of the coffee sector are Fair Trade (including the Max Havelaar label), Rainforest Alliance, Organic and Utz Certified. As a market diversification strategy, retailers require more than one standard, or apply different standards in different markets. An example is McDonald's: in its UK outlets, it sells Rainforest Alliance certified coffee; in other European countries, it offers Utz Certified coffee; in New England (USA), it sells fair-trade certified coffee (Ethical Corporation, 2007). It is likely that in the near future there will be a high demand for 'sustainable' and 'traceable' coffee. Table 1 shows growth of demand for selected sustainable coffees. The data provide an indication for possible increase in growth in demand over time.

Table 1 Growth of Demand for Selected Certified Coffees

<i>Type of certification</i>	<i>Percent increase in 2006 over 2005</i>
Fair trade	53
Utz Certified	25
Rainforest Alliance	106
Organic coffee	15

Source: www.thecoffeeguide.org

The estimated volumes of sustainable coffee sold in 2006 are presented in table 2.

Table 2 Estimated volumes of third party certified 'sustainable coffee' sold in 2006

<i>Standard</i>	<i>Volume (60kg bags)</i>
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
Percent of total exports	4.6

Source: Utz, Flo, Giovannuci (2007) cited in <http://agrifair.cta.int/en/content/view/full/2509>

¹ The net total is likely to be around 3.6-3.7 million bags, due to some overlap between fair trade and organic and that actual purchases of Starbucks CAFÉ are lower than the total certified figure entered here.

Fair trade targets a specific consumer group with its mission to strive for greater fairness in international trade (Coffee Barometer, 2006). The incentive to the consumers of fair trade coffee is that they are guaranteed that smallholder coffee producers get a fair price and support for the cooperatives they are organized in. Rainforest Alliance coffee certification was developed by Rainforest Alliance (an international conservation organization) and the Sustainable Action Network (SAN), a coalition of Latin American Conservation organizations dedicated to the principles of sustainable agriculture (www.TripleStandards.org). Companies, cooperatives, and landowners that participate in the programs of Rainforest Alliance must meet standards for protecting wildlife, water and ecosystem conservation, soil and integrated pest management, and the fair treatment of workers.

Organic agriculture is a production management system promoting and enhancing biodiversity and soil activity. It is based on minimal use of off-farm inputs and on management practices that restore, maintain and enhance ecological harmony (Ponte, 2004). Organic standards are devised by government authorities, international organizations (FAO / WHO Codex Alimentarius) and the International Federation of Organic Agriculture Movements (IFOAM).

Utz Certified coffee, which is the focus of this paper, is a worldwide certification programme for 'responsible coffee'. Coffee producers certified by the Utz Foundation comply with the Utz Code of Conduct (www.utzcertified.org). The Utz Foundation is an independent, non-profit organization, headquartered in The Netherlands and Guatemala. In March 2007, it updated its name from Utz Kapeh to Utz Certified 'Good Inside'. The new name reflects the intention to diversify the Utz model into products other than coffee. Adoption of the Utz standard and growth in purchases of Utz Certified coffee worldwide has been very fast (see Table 3).

Notable from Table 3 is the fact that some of the Utz coffee was not sold as Utz Certified partly due to limitations within the coffee market chain. Coffee is only called 'Utz Certified responsible coffee' when it has been registered through the Utz Foundation sales announcement process and given a unique Utz Certified tracking and tracing number.

Table 3 Utz Certified Coffee (Metric Tons)

Country	Quantity of Utz Certified coffee Million Tons			Utz Certified ² End 2006	Utz Certified ² 1/07/07
	Purchased as Utz Certified ¹ End 2005	Purchased as Utz Certified ¹ End 2006	Purchased as Utz Certified ¹ 1/07/07		
	ARABICA				
Brazil	9,224	10,737	12,295	62,289	75,328
Columbia	2,323	3,374	3,103	12,900	24,215
Bolivia	2,323	3,374	3,103	12,900	24,215
Peru	3,366	3,126	321	6,225	8,354
Costa Rica	1,052	1,390	1,502	1,522	2,346
Nicaragua	59	458	248	3,274	2,869
El Salvador	0	0	0	238	238
Honduras	789	1,445	2,295	2,241	5,095
Guatemala	1,651	1,500	999	1,906	4,738
Mexico	0	809	170	1,533	2,150
Dominican Republic	0	0	0	0	0
Hawaii	0	0	0	0	0
India	1,426	2,246	1,629	4,798	5,071
Indonesia	63	84	299	3,580	7,976
Vietnam	72	36	0	600	500
Ethiopia	288	622	57	8,266	9,380
Kenya	172	1,084	370	7,009	6,300
Uganda	2,176	1,767	480	2,546	4,550
Tanzania	18	0	27	695	673
Zambia	75	568	38	1,597	872
<i>Africa Arabica Sub-total</i> ³	<i>2,729</i>	<i>4,041</i>	<i>972</i>	<i>20,113</i>	<i>21,775</i>
Total ⁴ Arabica	22,943	29,418	23,879	121,394	160,954
Tanzania as % of Africa sub-total	0.7%	0.0%	2.8%	3.5%	3.1%
Tanzania as % of total Arabica	0.08%	0.0%	0.11%	0.57%	0.42%
ROBUSTA					
Uganda	797	128	512	4,100	3,226
India	359	470	569	8,859	8,119
Indonesia	627	627	0	6,481	7,050
Vietnam	4,160	5,418	5,662	13,400	21,119
Total Robusta	5,943	6,643	6,743	32,840	39,514
Total (Arabica & Robusta)	28,886	36,061	30,622	154,234	200,468
In bags (rounded)	480,000	600,000	510,000	2,500,000	4,600,000
Tanzania as % of total	0.06%	0.0%	0.09%	0.45%	0.33%

¹ Actual purchases of certified responsible coffee in 2005, 2006 and through 30.06.2007.

² Actual amount of coffee certified as Utz at the end of the year 2006 and as of end June 2007.

³ Total Arabica coffee Utz-certified for selected African countries (Ethiopia, Kenya, Uganda, Tanzania & Zambia)

⁴ World total (Latin America, Asia and African countries)

Source: UTZ Certified 2007

These standards are devised with the aim of improving social and environmental conditions of production (and trade relations in the case of fair trade). However, the increasing number of these initiatives and the demands they place on others in the supply chain are posing big challenges to actors in developing economies (including producers and exporters) (Oxfam, 2006). These challenges can be grouped into three main categories:

1. Challenges associated with awareness of changes in coffee consumers' behavior;
2. Challenges associated with understanding the standards that are developed with the intention of meeting new consumer demands; and
3. Challenges associated with the decision to comply with any of the standards.

In this paper, Utz Certified is used as a case study to analyze these challenges in the context of the Tanzania coffee sector.

4. Utz Certified coffee standard and its application in Kenya and Uganda

Utz Certified has been adopted by leading roasters, retailers, and coffee brands. These include Albert Heijn, Antober, Simon Luvelt and Sara Lee (The Netherlands), Kaffehuset Fiele (Norway), CoopNorway (Norway), Mitsumi & Co (Japan), Java Trading Co. (USA). Purchases of Utz Certified have been growing since 2002, when Utz Certified entered the market for the first time (Figure 5). By the first half of 2007, purchases of Utz Certified coffee were 30,000 tons (estimated to be 53 percent higher than the 2006 figure at the same period). Based on these estimates, the projection of purchases by end of 2007 is more than 50,000 tons (<http://www.utzcertified.org/>).

According to Utz, a factor behind the fast growth of purchases is increased global awareness of environmental issues. The main demand for Utz Certified coffees is currently in the Netherlands, Belgium, UK, the Scandinavian countries, Japan, the US, and Switzerland. Additional growth is anticipated especially in Japan, Canada and Finland (<http://www.utzcertified.org/>).

Purchases of utz certified responsible coffee

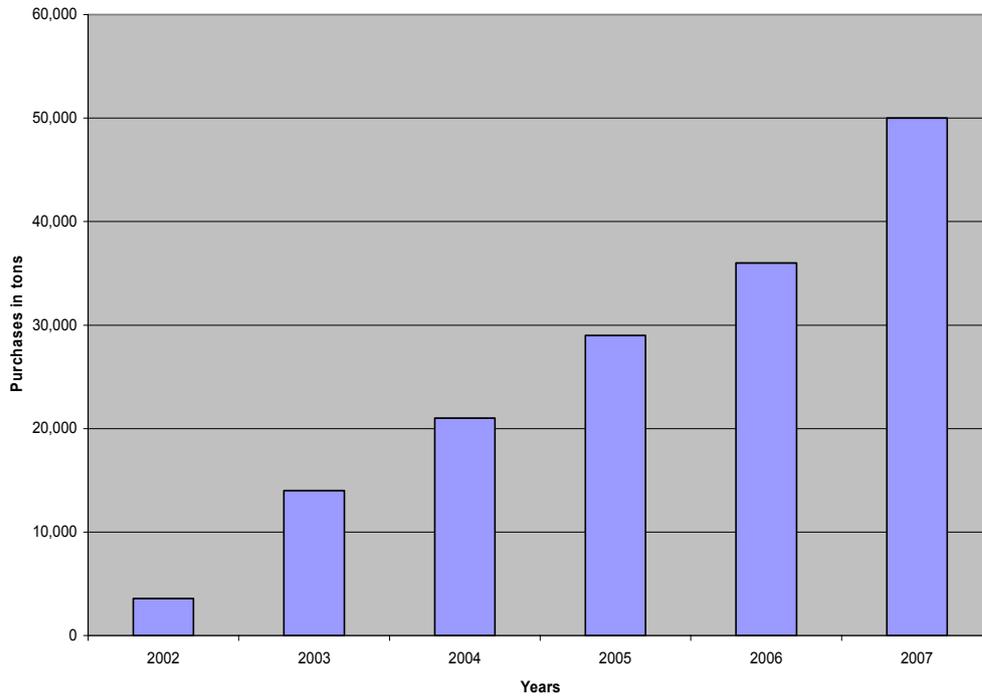


Figure 5 Purchases of Utz Certified responsible coffee 2002-2007

The Utz Code of Conduct covers three categories: good agricultural and business practices, social criteria based on the International Labour Organization conventions, and environmental criteria (www.iNSnet.org). The standard is open to all coffee growers, traders, roasters and retailers. The three categories of the Code¹ are presented in Box 1.

Independent certifiers conduct annual inspections to ensure that producers and businesses comply with the requirements of the Utz Certified Code of Conduct. The main Utz certifiers in Tanzania are SGS (Société Générale de Surveillance) and AFRICAFE for millers and exporters, and IMO for producers. These companies also provide auditing training to the clients.

Utz Certified originally focused on mainstream coffee traders and large plantations. However, recently, two pilot projects have been designed in Ethiopia and Zambia to help smallholder coffee producers (about 5,000 beneficiaries in Ethiopia and 1,000 in Zambia) to produce Utz Certified coffee that meets standards demanded by ethically conscious consumers (ITC, 2006).

¹ The full presentation of the code of conduct can be found at <http://www.utzcertified.org/index.php?pageID=114>

The International Trade Center (ITC) is involved in training, marketing, and management of the projects in collaboration with Utz Certified.

Box 1 Three Categories of Utz Certified Code of Conduct

1. Good agricultural and business practices

- monitoring business processes
- record keeping of fertilizers & agro chemicals
- good housekeeping practices
- workers trained properly
- implementation of accident and emergency procedures
- implementation of hygiene rules and practices
- traceability of coffee
- annual internal inspections

2. Social criteria

- workers are protected by national laws and ILO conventions regarding age, working hours, pensions, working conditions, collective bargaining and safety
- workers receive training in their own language about safe handling of chemicals
- workers receive protective clothing for the use of chemicals
- access to health care for the workers and their families
- access to education for children
- access to decent housing
- access to clean drinking water
- freedom of cultural expression

3. Environmental criteria

- reduce and prevent soil erosion
- responsible and minimal use of agrochemicals
- implementation of Integrated Pest Management
- minimize water usage and environmental pollution
- minimize energy use
- optimize use of sustainable energy sources
- treatment of contaminated water
- protecting water sources
- no deforestation of primary forests
- use of native tree species as coffee shade trees
- protecting endangered species

In Kenya, the first certifications were achieved by Rutuma Farmers Co-operative and Ndumberi Coffee Farmers Cooperative Society in 2006. Rutuma Farmers Co-operative has about 1,000 small scale coffee growers that are Utz-certified with certified area of 150 ha. Ndumberi Coffee Farmers Cooperative Society has about 2,500 farmer members. Rutuma Farmers Co-operative is a beneficiary of Utz Certified certification projects for small-scale coffee growers. These projects

are supported by The Coffee Support Network (CSN) and Efico Foundation, founded by the largest coffee trader in Belgium (Efico). The certification process at Ndumberi was conducted in close cooperation with the World Bank and the Coffee Support Network (CSN).² CSN and the World Bank supported the certification process by financing technical assistance from a trained agronomist, as well as substantial investments in drying beds and computer facilities.

In Uganda Kawacom,³ a coffee exporting company, established extension projects for smallholder coffee farmers via training and distribution of materials with the aim of improving their productivity and profitability.⁴ These projects benefited from financial and technical support by the Coffee Support Network (CSN). To motivate smallholder farmers to comply with the Utz standard, the company has established an incentive scheme for rewarding good agricultural practices. The company rewards, via the provision of inputs, farmers who have delivered larger volumes of good quality coffee and farmers who have made good progress to sustainable production. Kawacom notes that the costs of certification are quite high when compared to the premiums received for the certified coffee. It is anticipated that with Utz certification, smallholder farmers can also improve the intrinsic quality of coffee, which can result in the coffee commanding higher premiums on the international market. Logically, this is expected to enable farmers to achieve higher returns/incomes for their production.

This overview of smallholder farmers' participation in Utz Certified schemes in East Africa, outside of Tanzania, suggests that certification:

1. is carried out by exporters or cooperatives, not by smallholders individually
2. is achieved with the support of externally-financed projects.
3. has enabled farmers to develop a relationship with the exporting companies, thus improving their market access

²The Coffee Support Network (CSN) is a Dutch-based joint initiative funded by Doen, Hivos, Oxfam Novib and Solidaridad. CSN supports groups of small-scale coffee growers to obtain certification and strengthens capacity of certifiers.

³ Kawacom also exports organic coffee from Uganda through smallholder farmers' projects. Kawacom is owned by Ecom Agroindustrial Corporation Limited, a multinational agro-industrial group of companies. The administrative headquarters of the Ecom Coffee Group is located in Switzerland.

⁴ Such projects include: Bushenyi Project – Kawacom with about 2,950 small-scale coffee farmers and a total area of 2,415 ha Utz-certified; Paidha District - Kawacom with about 6,200 small-scale coffee farmers and a total area of 10,400 ha Utz-certified (certification 2003) Sipi - Kawacom with about 3,860 small-scale coffee farmers and a total area of 4809 ha Utz-certified (certification 2002).

4. has enabled farmers' access to services such as extension, training and provision of inputs
5. has had unclear impacts on income and welfare; this is mainly due to the fact that most of the schemes are relatively new and that little research has been carried out on them.

We will come back to these patterns in the conclusion, where we compare them with the dynamics of large-scale plantation certification in Tanzania. For the time being, we would like to note how these initiatives are dependent on external support, which raises the issue of their long-term viability.

5. Utz Certified coffee in Tanzania

The coffee industry in Tanzania benefits from support of many organizations. However, focus on sustainability standards among these organizations is very limited. The Tanzania Coffee Board (TCB)⁵ operates the coffee auction that employs a 'bidding game' model. The model was introduced to minimize the possibility of collusion and ensure fair play.⁶ It is estimated that 95 percent of all the coffee exports from Tanzania go through the auction and the remaining 5 percent through direct exports. The auction prices are based on New York stock exchange for Arabica Mild and London Stock Exchange for Robusta. Following pressure from stakeholders (including coffee industry associations), in 2003 TCB formally recognized the special needs of high quality coffee and implemented guidelines and licensing procedures for direct exports. Unfortunately, so

⁵ TCB is a government institution that is in charge of overseeing the coffee industry in Tanzania in relation to policy issues, coffee quality improvement and production, supervision of coffee marketing through standardization and auctioning, as well as promoting coffee markets both inside and outside Tanzania.

⁶ The open auction model is a system where coffee lots are auctioned openly. The buyers shout their prices repeatedly, until the highest bid is reached. The auctioneer bangs the auction hammer to indicate the sale of a lot being auctioned. The bidding game auction model is a system that involves the use of a computer by the auctioneer and a large electronic bidding screen that is visible to all people in the auction room. Each coffee buyer is assigned a numbered position (seat and table) that is connected to an auctioneer's computer in the auction room, the positions are relocated during every auction. Each buyer bids for a particular coffee lot by pressing buttons on their assigned tables that are identified electronically on the computer. The bids are displayed on the bidding screen without showing the bidder's identity. By hiding the bidder's identity possibilities of collusion are minimized. Fourteen days before the auction each buyer is informed of the coffee that is offered for next auction through a catalogue and sample of coffee lots to be auctioned provided by TCB.

far there has been no specific regulation that explicitly focuses on sustainability standards and standards' compliance.

With a direct export license, coffee producers can bypass the auction and sell directly to buyers. Under the current direct coffee export regulations, the exporter must meet the following general criteria:

The exporter must identify the buyer and get a license from TCB for direct export

- Coffee sold under direct exports must be grade AA, A, PB or AB (these are international coffee grades based on the size/shape and density of 'clean' coffee beans)
- The exporter must obtain TCB certification of warrant based on the written contract
- The price offered (by the coffee buyer) must exceed three (3) consecutive TCB auction prices
- The source must be from a farmer or producer and not an exporter
- Lots of coffee should be between 100-300 bags (60 kg bags) to be accessed for direct markets⁷.

These rules were developed specifically for high-quality coffee. In 2003, the issue of certified coffee was not yet a commonly recognized one in Tanzania, thus regulation did not make any specific consideration to Utz certification or other sustainability standards. Given the rapid changes in the sustainability coffee market, this needs critical examination – specific rules are necessary to allow for direct sales of Utz Certified coffee without undermining the auction system.

Utz certification started in Tanzania during the early 2000s. Currently, all Utz Certified coffee in the country is Arabica. In addition to the regular procedures and documentation for export required by TCB, Utz Certified coffee also needs additional documentation to meet full traceability as demanded by Utz standard. Adoption of the Utz standard and growth in sales of Utz Certified coffee from Tanzania has been very slow compared to other East African countries (see Table 2). The share of Tanzania's Utz Certified coffee sales from African countries that export Utz Certi-

⁷ The possible logic of this regulation is that the additional paper work required for direct export can be justified with export of large quantities. This has implication for smallholder coffee producers that cannot produce large quantities of high-quality coffee. This suggests the requirement for such producers to be organized as associations, groups and/or cooperatives to export coffee directly.

fied coffee was only 0.7 percent in 2005. By mid-2007, it was 2.8 percent. All the coffee sales originated from certified coffee plantations that were certified in 2005 and the average premium was 5 US-ct. /lb of green coffee (Utz officer, personal communication).

The common characteristics of the Utz-certified producers and businesses in Tanzania are the following:

SCALE OF PRODUCTION

The Utz-certified producers in Tanzania are all large-scale coffee plantations of more than 50 ha under coffee (see Appendix 2 for more details). These plantations have been affected by major policy changes, such as the nationalization of private coffee plantations in the 1970s (e.g. Machare Estate was nationalized in 1973 and ownership transferred to Uru North Cooperative Society), and market liberalization of the coffee sector in the 1990s. The plantations are currently under long-term lease to private investors by primary corporative societies.

MANAGEMENT STRUCTURE

The plantations are under the management of experienced people that have worked in the coffee sector for a long time. High level of management skills is applied in human, financial and physical resources. The companies that operate these plantations have similar operations in neighbouring Kenya and a relatively long experience in complying with sustainability standards in the export sector. Notable is also that all the compliant plantations are private companies and have foreign participation in top management.

FINANCIAL CAPITAL

Producers and businesses have access to financial capital that is required for long-term investment as well as for running costs. At farm level, investments in sophisticated farm equipment and production practices can be observed. No indications of critical financial constraints were observed among certified producers. Compliant producers and businesses have linkage with international organizations that provide financial support.

INFORMATION AND MOTIVATION

Certified producers had access to information, and through this information they were motivated to get certification in order to improve market access. Certified producers and businesses argue that they already observed Good Agricultural Practices (GAP), even before certification, therefore time and effort required for certification was minimized. They also claim that their adherence to local and national rules and regulation with regard to labour laws and environmental concerns made it easier to comply with the Utz standard. They noted that these rules and regulations are in place but are rarely enforced by responsible bodies.

6. Perceptions of costs and benefits of certification and main challenges

PERCEIVED COSTS BY COMPLIANT PRODUCERS AND BUSINESSES

Utz-certified producers and businesses perceived the main *management costs* of compliance to include:

- Documentation that is critical for traceability – for example, environmental management requires production of manuals for chemicals and fertilizer application, registering of residual levels, and implementation of water use programs; the costs here relate to management time, and training of workers for documentation and supervision.
- Cost of certification: all producers and businesses complained about the high cost of certification. In addition to this, certification arrangements must be done during coffee harvest time, the busiest time of the year; management must plan for a date of certification and identify the certifier; the certifier is required to inspect everything including labour accommodation, river reserves, waste treatment, the processing factory and chemical store. Employees are also interviewed. Spot checks are done after a normal certification procedure is completed.
- To ensure daily compliance of the codes of conduct, a very close supervision of each farm area is required, for example supervision of safe waste disposal.

Reported costs that relate directly to the *implementation of 'good practices'* are:

- costs related to preservation and protection of river reserves: the producer is required to consider the quality as well as the sustainability of the source of irrigation water;
- forgone revenue from land areas that are left natural: one producer indicated that some 30 percent of the total estate area was left un-cultivated for this purpose;
- maintenance of a special nursery for indigenous trees that supply seedlings for transfer to the protected areas (such as river reserves) and surrounding communities each year – this is required by the Utz Code of Conduct to ensure that there is no deforestation;
- irrigation water and technology/equipment that ensure efficient use of water and reduced soil erosion – for example, use of spot irrigation instead of surface irrigation;
- waste disposal, including construction of incinerators at the farm in order to ensure that hazardous wastes are disposed off properly;
- maintenance of stores for farm inputs (e.g. fertilizers and pesticides) and, in the case of millers and exporters, stores for coffee; producers are also required to ensure that the shelf life of chemicals is observed; in addition, records of when, where and how much of a chemical was applied must be kept; millers and exporters must ensure that Utz Certified coffee is stored in separate warehouses from conventional coffee; stores for keeping Utz Certified coffee must also meet certain requirements such as wall painting, organization of pallets and warehouse ventilation.

Costs related to *social criteria* were also perceived to be important and included:

- cost for on-job training to expand professional skills (e.g. book keeping) among employees;
- cost for conducting workshops to improve social and environmental awareness among workers;
- employee salaries that comply with labour laws for all categories of employees (including seasonal workers and permanent employees). Permanent employees often are technical or skilled staff such as field managers & accountants);
- improvements of the quality of labour accommodation;
- use of protective gear by workers when handling fertilizers and agro-chemicals;
- cost of an annual health check-up for all workers;
- creating awareness to surrounding communities regarding collection and incineration of garbage so that it does not pollute water streams;
- costs for signboards to keep away people from fields or premises that are potential hazards to human health.

PERCEIVED BENEFITS TO COMPLIANT PRODUCERS AND BUSINESSES

Several tangible benefits were also identified by compliant producers and businesses:

- producers and businesses offer regular employment opportunities for workers from neighbouring villages and communities;
- from the management point of view, certification creates transparency and openness between management and employees;
- water is saved due to use of efficient irrigation systems – one producer estimated that with Utz certification the farm used only about 2 percent of the water that they used before certification, due to reduced water loss; this is a possibility since they switched from use of open furrows, with high water loss through evaporation and percolation, to piped sprinkler and drip irrigation;
- Utz-certified compliant producers and businesses receive a premium price and relatively better market access;
- Compliance creates a sense of discipline from the top management to the low level workers and creates social responsibility for the workers and environment.

MAIN CHALLENGES TO UTZ CERTIFIED CERTIFICATION

One of the critical areas of certification relates to the *use of chemicals* in coffee. First, producers must meet Tanzania's regulations on importation and use of chemicals. It is required that all chemicals must be tested and approved by Tropical Pesticides Research Institute (TPRI) before being used in any farm. Second, producers must meet the requirements for Utz Certified Code of Conduct. Records are kept of the shelf life of the chemical, its location and date of application. Workers' health must be taken into consideration – visible signs are to be posted, warning workers not to visit recently sprayed areas. The workers who are involved in the spraying exercise must wear protective gear. In addition, spraying equipment should be cleaned in specified areas and the waste water should never be diverted to rivers or streams. For any chemical applied there must be a first aid procedure, and the cans or bottles that have been storing the chemical must be disposed by the Municipality or incinerated. Routine inspection must be done on water systems, and the presence of running water for the employees' washrooms.

Another critical area is *traceability* of coffee, which needs to be assured throughout the supply chain. At the farm level, production as well as pre-processing is carried out. When coffee is ripe, it is picked and wet-processed to remove the seed coats and fermented to remove the starch that covers the seeds. After fermentation, the green coffee is then washed and sun dried in drying

tables until the moisture reaches about 15 percent. It is then put in dry mills for slow drying until the moisture reaches 12 percent. Then the dried coffee is put in sisal bags and stored ready to be taken to the coffee mills for processing. Coffee is sold either through the coffee auction (managed by Tanzania Coffee Board) or by direct exports to the identified specific buyers. However, when it comes to the export of Utz Certified coffee, coffee producers must link with coffee millers and traders who are Utz-certified as well as with certified roasters. All these procedures require documentation that can allow full traceability of the Utz Certified coffee.

Another main challenge is the apparent *lack of forward contracting* with buyers of Utz Certified coffee. Forward contracting is critical in the case of coffee direct exports. Producers strive to obtain forward contracts with the buyer on agreed price such that even if the auction price is lower, the buyer must pay the price agreed upon earlier in the contract (or vice versa). Forward contract helps minimizing risks.

Finally, just like other actors in the coffee chain, producers may also seek *multiple certifications*. On the one hand, certified producers argue that once certified for one of the sustainability standards, the cost of compliance to another certification is likely to be lower due to some similarities in the standards. On the other hand, achieving multiple certifications may not be practical because of the constantly changing content of standards and their multiplication.

PERCEPTIONS BY NON-CERTIFIED COFFEE PRODUCERS AND MILLERS

The management of conventional coffee estates was aware of the development of coffee certification programs in Tanzania. But there was no clear indication if the awareness included knowledge of marketing trends in the importing countries and consumers' behaviour. These producers did not perceive an immediate necessity to comply with sustainability standards. However, within this general view, conventional coffee producers and businesses did also identify three perceived limiting factors to the possibility of certification:

Some of the conventional coffee producers already produce high-quality coffee that allows them to get a license for the direct export of coffee at a premium price. They sell this coffee either as direct exports or at the coffee auction when prices are good. These producers clearly noted that when prices are satisfactory, there is no incentive to get certified.

There is awareness of the existing sustainability standards among conventional coffee producers. However, they are not convinced that the premium price offered is worth the effort. Between 2005 and 2006 the average premium offered to Utz Certified coffee sold from Tanzania was 5

USD cents per pound. On the other hand, Utz certification may help forging new business contacts and improve market access.

The cost of certification and auditing was perceived to be high compared to the premium price offered.

7. Conclusion and policy recommendations

Coffee consumers, retailers, and roasters in Europe, USA, Canada, and Japan increasingly demand coffee that has been produced 'sustainably'. These demands have translated into various standards in the coffee sector that include Fair Trade (including the Max Havelaar label), Rainforest Alliance, Organic and Utz Certified. Coffee producers therefore are faced with the challenge of responding to these demands.

The first challenge for coffee producers is to make informed decisions on whether to comply or not with any of the many available standards. This paper has shown that the estate coffee producers in Tanzania, who have not yet attempted certification, perceive that they can operate successfully without certification, at least at the current levels of international prices. In relation to smallholders, experiences of Utz certification in Uganda and Kenya suggest that capital requirements for certification is a key limitation. At the same time, smallholder groups and cooperatives have been able to enter the sustainability market through facilitation by international organizations, NGOs and/or multinational exporters. The possible entry point for Utz certification for smallholder coffee producers in Tanzania, is the Association of Kilimanjaro Specialty Coffee Growers (AKSCG). The advantage of AKSCG is that the smallholder coffee producers are already organized and therefore they need support for compliance and certification.

The second challenge of sustainability certification to coffee producers relates to the choice of which of the many standards to comply with. One possible decision is for producers to comply with all standards in order to have wider market access possibilities. This means meeting the costs of compliance and certification. Producers that are already certified for one standard argue that the cost of compliance with subsequent standards is lower. However, the cost of certification and of maintaining records as per requirements of the different standards requires specialized skills and is likely to be a limiting factor to the majority of producers.

The third challenge is how to meet the requirements for compliance to any of the standards that producers decide to comply with. This requires a conversion process in terms of production practices as well as producing and maintaining documentation. Producers that are not certified are yet to be convinced that these investments can offer them satisfactory returns. Evidence presented from Tanzania shows that only large-scale farms have so far complied with the Utz standard. Smallholder coffee producers, who are the majority, are yet to respond to these demands.

The current regulatory approach in the Tanzanian coffee sector places emphasis on the coffee quality grades. It has no provisions for sustainability certifications. It is suggested that a broader approach be adopted, where the current issues of standards relevant to social and environmental issues be integrated in the national coffee sector improvement strategy. Such a strategy should provide means for timely access to; information relevant in the whole coffee value chain, especially in relation to sustainability standards and their requirements; financial services for investment, adoption of new technologies and management/logistics systems that are necessary for compliance. Such a strategy should also include special programmes for smallholder coffee producers.

Compliance to sustainability standards requires some basic knowledge and skills on how to deal with environmental issues, social issues and record keeping necessary for traceability. Farms and producer groups should be helped to evaluate the market prospects of sustainable coffee. On the one hand, certification can encourage production of high-quality coffee that can fetch premium prices. Certification can also stimulate the application of new knowledge, management skills and technology that will strengthen coffee producers and businesses. On the other hand, there are obvious costs and investments entailed, and the rewards may not be that clear. What is needed, in any case, is for the coffee sector regulatory system to provide an institutional guide on coffee standards. The guide can be in the form of information on existing standards, market outlets and certification processes. Finally, technical cooperation programmes aimed at assisting producers in developing countries to access markets need to focus not only on compliance to government regulations in developed countries but also on compliance to increasingly stringent private standards.⁸

⁸ In 2005, the Eastern African Fine Coffees Association (EAFCA) raised a concern to the International Coffee Organization that producers and traders from EAFCA countries needed a guarantee that certification to sustainability initiatives will lead to real economic benefits to cover the costs and sustain livelihoods (ICO, 2005).

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Appendix I: Glossary

Certification

The process through which a certification body confirms that a product, process or service conforms to a specific standard or specification.

Compliance

The state of being in accordance with established guidelines, specifications, standards or legislation.

Regulatory Standards

Mandatory standards, developed by interested parties and national representatives, and often associated with safety issues

Standard

An agreed way of doing something. Standards are designed to address a wide variety of needs and goals. Formally or informally, they can be applied to products, services or processes to promote the following characteristics: safety and ethical commitment, compatibility and efficiency, effectiveness and ease of use.

Sustainability

Living and working in ways that do not jeopardize current and future social, environmental, and financial resources.

Trade barriers

Government laws, regulations, policy, or practices that either protect domestic products from foreign competition or artificially stimulate exports of particular domestic products. The most common foreign trade barriers are government-imposed measures and policies that restrict, prevent, or impede the international exchange of goods and services. Voluntary or private standards can also have protectionist effects.

Appendix 2: Methodology

The study was conducted in the northern regions of Kilimanjaro and Arusha in Tanzania. The two northern regions are responsible for most of the Arabica coffee produced in Tanzania. Large-scale coffee plantations are also mostly located in these two regions. The Tanzania Coffee Board (TCB), the organization that is responsible for the coordination and regulation of the coffee sector and for handling the coffee auction, is housed in Moshi Town. Kilimanjaro is currently the only coffee-producing area in Tanzania where there is coffee produced and processed under the Utz Certified Code of Conduct certification.

Interviews were carried out with key actors in the coffee sector using a checklist of questions. The actors included producers, processors, exporters, members of coffee associations and cooperatives, service providers and regulatory bodies. The questions focused directly on the detailed description of the activities of the actors and their role in the coffee sector, issues of coffee sustainability standards and quality, and rules and regulations governing the coffee sector with particular focus on standards.

A questionnaire was prepared specifically to gather the actors' perceptions on costs and benefits of sustainability standard compliance. A 'with and without' approach was used: all three coffee plantations that are Utz-certified were interviewed (Kilimanjaro Coffee plantation, Machare Coffee plantation and Uru North plantation). These were compared with three plantations that are not Utz-certified (Mufindi Tea Company, Mringa Coffee Estate Limited and Manyatta Estate).

Machare Estate was the first coffee producer to be Utz-certified in Tanzania. Machare Estate is one of the plantations that were nationalized in 1973. Currently, the estate belongs to the Uru North Cooperative Society. Since 1998, the Cooperative Society has leased the estate on a long-term basis (25 years) to Blue Mountain Coffee Farms Ltd. (BMCF) – a company owned by private individuals from Germany and the United Kingdom. Machare Coffee Estate sold the first Utz Certified coffee during the 2006/2007 season. The total certified size of Machare Estate is 145 ha and the labour force is approximately 100 people.

Uru Estate is the smallest of the three Utz-certified coffee plantations in Tanzania. The total certified size of Uru Estate is 80 ha with a work force of approximately 50 people. Uru Estate is also owned by Uru North Cooperative Society. The cooperative leased the estate for 30 years to a German firm called Block and Boucher Limited through an agreement signed in 2000. Uru

Estate shares management with the Machare Estate, and for this reason they were treated as one producer in this study.

Kilimanjaro Plantation Limited (KPL) is also one of the private plantations that were nationalized in 1973. KPL is comprised of eight estates which are owned by four different primary societies: (i) Kibosho-Mweka Sungu Cooperative Society, (ii) Uru East and Muruya Cooperative Union, (iii) Uru Shimbwe Cooperative Union and (iv) Uru Central-Mawela Cooperative Union. The estates are: Mawingo, Kichoni, Tchibo, Kifumbu, Ngomberi, Keiti, and Kilimanjaro. Each cooperative union signed lease agreements independently with different terms of lease contract. For example Kibosho-Mweka-Sungu Cooperative Society leased three estates (Mawingo, Kichoni, and Tchibo) to KPL for 30 years lease, starting from 2000. KPL started to prepare for Utz certification in January 2005, and it was not until April 2006 that they were ready for certification. The total certified size of Kilimanjaro Plantation Ltd. is 620 ha with a labour force of about 1000 people.

As mentioned above, three non-certified producers were interviewed. Mufindi Tea Company has taken over some of the formerly cooperative-owned estates in Kilimanjaro since 1999 (Lyamungo Coffee Estates, Two Bridge Estates, Edelweiss Plantation, Xeno and Helena Estate, Narumu Estate and Umbwe Mlama Estate, all of which were owned by the Lyamungo Sere Cooperative Union). All these estates are under rehabilitation and are planting new coffee seedlings. They are still producing 'conventional' coffee. The total acreage under Mufindi Tea Company is 1,054 acres. Mringa Coffee Estate Limited is situated along the Arusha-Nairobi Road. It has been run for 50 years as a family company producing mild Arabica coffee. Manyatta Estate is located at Usa River in Arumeru District, Arusha Region. It covers 200 acres of coffee produced under drip irrigation.

The survey also covered two certified coffee millers (Gourmet Coffee Mill and Rafiki Coffee Millers) and two certified exporters (Dorman-Tanzania Limited and Taylor Winch). Gourmet Coffee Mill is a Utz-certified coffee mill in Moshi, Kilimanjaro. It mills coffee from Utz-certified producers, mainly Kilimanjaro Plantations Ltd. (KPL). Rafiki Coffee Miller is a coffee mill that is a sister company to Taylor Winch Limited (an exporting company). Rafiki Coffee Millers processes conventional coffee and has been Utz-certified since 2004. Dorman Tanzania Limited is a Utz-certified exporter owned by the EDF&Man Group Company of the UK as a holding company, but is managed by the VOLCAFE group of Switzerland. Dorman (EA) has its headquarters in Nairobi, Kenya. Before 2003, Dorman performed both roles of coffee milling and exporting. However, after the change of policy in 2003, whereby multiple roles in coffee industry were restricted, Gourmet Coffee Mill was established to undertake the coffee milling roles of Dorman Company in Tanzania. Taylor Winch is a coffee-exporting company and is a

subsidiary company of VOLCAFE Group of Switzerland. VOLCAFE is one of the largest coffee importers in the world. Before 2003, Taylor Winch performed both milling and exporting. Thereafter, Rafiki Coffee Mill was established to undertake the coffee milling roles of the Taylor Winch company in Tanzania.

Finally, one non-certified milling company was included in the study: the Tanganyika Coffee Curing Company Ltd. (TCCCo). TCCCo Ltd. is the oldest coffee-curing company in the country, established back in 1920. TCCCo is an important actor in the coffee value chain in Tanzania, since it is the main mill that processes coffee from cooperative societies. The main shareholders of TCCCo Ltd. are KNCU and Tanzania Coffee Growers Association (TCGA) each with 25 percent of shares, with the remaining 50 percent divided between other cooperative unions.

In addition to businesses that directly handle coffee, interviews were carried out with organizations that support the coffee industry in Tanzania: the Kilimanjaro Native Cooperative Union (KNCU), The Tanzania Coffee Association (TCA), the Tanzania Coffee Research Institute (TACRI), the Association of Kilimanjaro Specialty Coffee Growers (AKSCG) and government institutions.

KNCU is a members' association made up of primary cooperative societies. KNCU's core activity is marketing of coffee from small-scale farmers in Kilimanjaro. At the time of the study, KNCU's activities in relation to sustainability standards focused on certification for Fair Trade and organic production for some of its primary societies.

The Tanzania Coffee Association (TCA) includes licensed private coffee companies, cooperative unions, individual farmers, and farmer groups. TCA holds a general meeting of about 300 members annually to discuss matters on coffee industry development in the country. It plays an important advocacy role in influencing the rules and regulations that govern the coffee industry by liaising with the Tanzania Coffee Growers Association and with TCB.

The Tanzania Coffee Research Institute (TACRI) is a research institute located in Kilimanjaro, with sub-stations in Mbeya and Kagera regions. TACRI is the main source of coffee planting material and develops agronomic practices through research programmes. TACRI has no programme that directly focuses on sustainability standards.

AKSCG is an association of smallholder coffee producers organized as small groups of farmers. Their specialty coffee is processed by a central coffee pulping unit which ensures uniform coffee processing and higher quality. The association has a license for the direct export of coffee. The

aim of AKSCG is to improve the quality of smallholder coffee and the price it fetches. The association benefited from the support of the NGO Technoserve, in terms of technical advice and linkages to financial institutions.

Key government institutions that were covered in the study included extension services under the local government authority (Moshi Rural District council) and the Zonal Coffee Advisor based in Arusha and responsible for the regions of Kilimanjaro, Arusha and Tanga. The Kilimanjaro Rural District Council employs a coffee specialist among the agricultural extension personnel. The main roles of these government institutions in the coffee value chain are mainly advisory with the aim of improving production of coffee among smallholders. None of these institutions had any specific role or activity directly related to Utz certification or in general sustainability standards. It was observed that with the current level of awareness and understanding of standards issues among the interviewed personnel it is unlikely that they can adequately advice coffee producers with regard to sustainability certifications.