Trade Standards Practitioners Network (TSPN) Workshop
*"African Smallholders and the Challenge of Assured Compliance:
What Have We Learned From Our Interventions?"*
Washington. D.C. June 19-20, 2007

Smallholder Specialty Coffee Compliance: Ethiopia and Yemen Case Studies

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Introduction

Presented here are case studies of the specialty coffee industry in Ethiopia and in Yemen.

- *Case One: Ethiopia* draws from a USAID-funded cooperative-strengthening program (1999–2006) which enhanced smallholder producers' ability to participate in the coffee value chain. The program supported farmer standards compliance and certification.
- In *Case Two: Yemen* a 2006 sector assessment reveals a poorly integrated industry that fails to help farmers understand and comply with international coffee standards. Interventions to correct this shortfall are in process but have not been implemented.

Case One: Ethiopian Smallholder Coffee

Ethiopia grows approximately 225–280,000 metric tons (MT) of coffee per year. Yields vary due to climatic conditions, available moisture and the age of the coffee stand. A significant portion of the country's coffee plantings is well situated for production of high-quality Arabica eligible for the high-value specialty coffee market. International market response to Ethiopian coffee has been historically positive when there is consistent quality control. Quality and consistency suffered dramatically from domestic turmoil in the 1980s. Emerging from the Dergue period in 1991, the government began to re-establish the country's coffee reputation. By 1995, the government had made several policy decisions regarding the privatization of producer groups and liberalization of the coffee industry. ACDI/VOCA began working with producer cooperatives and on forming coffee unions in 1997.

Specialty Market Compliance

Ethiopia's coffee, while excellent, has long been traded as commodity coffee, albeit with a premium over the New York Board of Trade Coffee "C" market price for such high-value beans as Harrar or Yirgacheffe. However, as the specialty industry has grown over the past 15 years, new trade models have emerged. The specialty market increasingly is looking toward closer ties with producers, and a portion of Ethiopia's coffee finds its best niche among small- to medium-scale roasters and traders who deal in the upper end of the market. This premium market segment is driven by commitment to social equity for producers, environmental sensitivity and, responding to both end consumer and market concerns, a price structure that will ensure sustainability in the supply chain. Ethiopian per capita annual income is one of the ten lowest in the world, and the income of most of the smallholder coffee farmers is less than a dollar per day. The specialty coffee market is thus an important avenue for Ethiopian farmers to increase their incomes.

Best practice in Ethiopia and elsewhere calls for grading and cupping expertise to be established at the local producer group level. The introduction of a quality assurance and control system is being adopted throughout the industry through the use of models like the "Q" Program implemented with the assistance of the Specialty Coffee Association of America (SCAA) Coffee Quality Institute (CQI). This program helps develop the skills among producers that allow them to not only understand the market but learn the production and processing techniques needed to meet those requirements.

Organizing producer groups into a union around a geographically central washing station, and placing ownership in the hands of the producers increased overall quality and product consistency. When producers had a clear vested interest in the quality of their product because it affected price, the provision of technical assistance in processing was more effective. This ownership structure lent itself to differentiating coffee by source of origin and further branding, and it facilitated the direct market linkages that reflect the positive export trend (see below). Most premium certification protocols such as FairTrade, Organic, UTZ Kapeh or Rainforest Alliance stipulate direct ties to producer organizations.

Enabling Environment

Policymakers play a large role in creating the enabling environment necessary for producers of specialty coffee to enter the market; the policy environment creates the incentives to allow them to profitably stay in the market. Some aspects of the enabling environment are cultural; some are globally defined; much of the enabling environment dynamic is how policy is implemented through regulation and enforcement. This requires a thorough understanding on the part of policymakers of what drives a differentiated product market versus a commodity market. The Ethiopia experience provides some lessons for other coffee producing countries. Getting national policies it right at the outset will allow the maximum benefits to reach the producers and thereby ensure continued sustainable participation.

ACDI/VOCA established four cooperative unions owned by producer cooperatives and representing over 180,000 Ethiopian farmers. For specialty coffee, not bulk commodity coffee, the unions lobbied the Government for the opportunity to export directly to buyers on behalf of their member cooperatives, by-passing the central auction and the necessity of dealing with a private exporter. Because of the large number of specialty coffee farmers and the potential for increased smallholder income the Government of Ethiopia granted the unions' request and changed the coffee export law for the first time in over 50 years.

Linking Producers to Markets

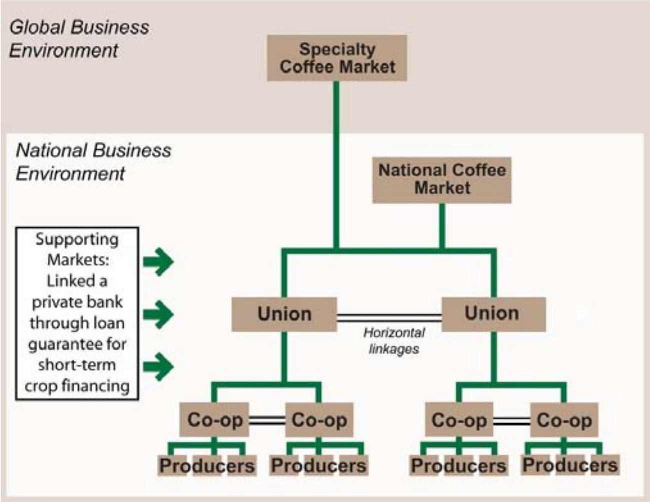
Since Ethiopia is the birthplace of Arabica coffee, it is only natural that Ethiopian coffee cooperatives have been prominent in responding to specialty coffee demand. ACDI/VOCA's Agricultural Cooperatives in Ethiopia (ACE) project, with funding from USAID, played a central role in strengthening the cooperative coffee value chain for specialty coffee exports. Half of Ethiopia's total annual production of is consumed domestically; exports for 2005-2006 were 146,500 MT, one-third of which was washed. Small-scale farmers with 1–2 hectares of land produced most of this coffee through a mixed farming system, whereby food is produced for subsistence and limited local sale, and coffee is the main cash crop. The ACE project restructured and strengthened 775 primary cooperatives, representing 750,000 members, in the Oromia, Amhara, Tigray and Southern Nations regions. These cooperatives operate as open, private democratic associations providing marketing and input supply services to their members. Of the total farmers assisted by ACE, close to 180,000 are small-scale coffee producers who came together in 154 cooperatives federated into the four coffee unions of Sidama, Yirgacheffe, Oromia and Kafa.

In value chain strategy for small-scale farmer business development in Ethiopia, the focus is on enhancing the competitiveness of commodity sectors of smallholder farmers. Although the value chain approach is relatively new, key questions and challenges that were faced by Ethiopian coffee producers in 2001 are the same. How can smallholder rural coffee producers integrate and sell coffee into growing international coffee markets? How can smallholder coffee producers be ensured access to the business services necessary to enter and thrive in these growing markets? To answer these questions, the cooperatives and ACDI/VOCA applied the principles that evolved into the value chain methodology coupled with a program of institution building.

Though the value chain approach was apt for the ACE project, the approach alone could not alone drive growth of the cooperative coffee sector. Another prime factor in this success was the substantial institutional development and capacity building by ACE of private sector cooperatives. The success of the institutional building interventions rested on expanded sales. The key to the ACE model is the heavy emphasis and close link of institutional development to market opportunities. ACE activities fell into five areas of the value chain structure:

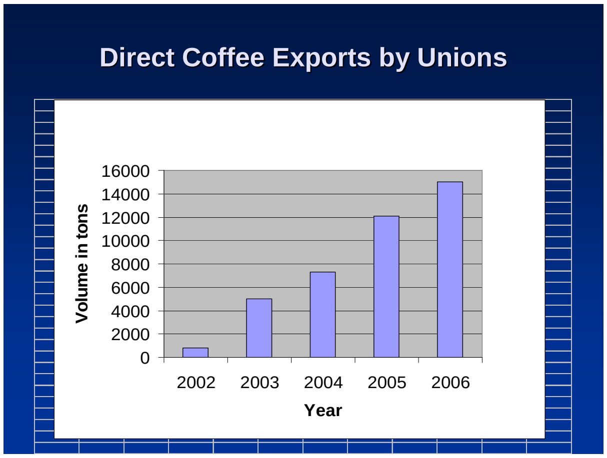
- vertical linkages and cooperation
- horizontal linkages and cooperation
- supporting markets, especially financial markets
- firm-level upgrading, and
- improvement in enabling environment

In the supply chain model coffee unions are the lead firms in the local value chain (see diagram). As of the end of 2005, cooperatives had formed four coffee unions owned and directed by 154 cooperatives with 180,000 farmer members. Since the unions are owned by cooperatives, building union capacities vertically linked cooperatives into end markets.



Most cooperatives' washing stations process coffee. Close collaboration between unions and their member cooperative washing stations was integral to improving coffee processing to meet global quality and taste standards. This link strengthens the entire value chain efficiency and competitive position by driving quality production by cooperative farmer members, efficient processing operations, end market synergy and ultimately, consistent cupping quality.

Unions and member cooperatives establish international market linkages for sales into higher-value, international specialty coffee markets. The unions lead this work, but cooperatives play a strong supporting role as coffee sources. International buyers nearly always visit the coffee growing areas and seek relationships with growers. The four unions strengthen members' bargaining position in the marketplace, returning a high share of market price to producers and allowing farmers to achieve economies of scale and control their economic future. Results to date have been impressive. From an export base of 126 MT valued at $265,000 five years ago, coffee unions have more than doubled international sales annually such that 12,800 MT were exported in the production year ending in June 2005 worth a total of $31.9 million. Equally impressive are the cooperatives substantial dividends to farmers coming from union and cooperative profits. In 2004, the coffee unions returned $1.63 million to member small-scale farmers (and the trend is strongly upward) translating into significant household income.[1]



[1] Ethiopia's GDP is around $100 per capita.

Horizontal linkages and cooperation

Horizontal linkages among producer cooperatives have helped the success of the unions, which depend on the quality of the product provided by the member cooperatives. Thus, the focus on quality improvements at the processing and farmer level was reinforced by the shared goals of cooperatives. Learning in areas such as cupping, fermentation, water conservation was common. Cooperatives collaborated in market information, trucking, storage and other logistic requirements. In business capacity building, ACDI/VOCA found that experience sharing and learning across the training and technical assistance provided to cooperatives staff and board members (e.g., in accounting, internal controls, warehouse management, staff management) was beneficial. Important horizontal linkages exist at the union level as well, where they cooperate with shared market information and contacts, solutions to shipping and logistic problems. All four unions have cooperated for the annual international coffee competition and internet auction. Sidama Union helped both Yirgacheffe and Kafa unions in their start-up periods to export containers of coffee.

Building supporting markets, financial or otherwise, helps create a competitive value chain. In Ethiopia, a constraint at both the cooperative and union level has historically been a lack of financing. In the early years of ACE, the constraint was most severe for short-term financing of cooperative purchases of cherries from the farmers. Working with USAID, ACDI/VOCA arranged for a private bank to receive a U.S. government loan guarantee for short-term crop financing. For the crop year ending in 2005, the loan guarantee was $1.3 million. This intermediation helped cooperatives improve their understanding of bank relationships and requirements, and helped unions and cooperatives expand borrowing from other banks, which has grown to be significantly greater than the guarantee.

Much of the institutional and capacity building by ACE came as firm-level upgrading at the farmer, cooperative and union levels. Although ACE interventions were more comprehensive than under a traditional value chain approach, direct support in the form of institution and capacity building in the form of training and technical assistance to improve quality, processing and marketing by farmers, cooperatives and unions was successful.

Enabling Environment

The starting point for the growth of the cooperative coffee sector was the policy decision on the part of the government to end the requirement for cooperative coffee to be sold through the national auction. However, there have been other efforts to create an environment that enables growth of the sector. Through ACE, ACDI/VOCA and union leaders often engage with government officials on the relative success of the coffee cooperatives compared to the private exporters, local traders and washing station owners. There has also been discussion between government officials and international buyers and roasters about the rise and changing nature of the international specialty coffee markets. The importance of quality production, traced to origin with substantial buyer monitoring and even involvement with coffee growers has been well understood by government officials.

Today, even for non-cooperative producers and exporters, the Ethiopian coffee value chain has a number of emerging export market channels that go beyond auctions. Cooperatives' success in organizing coffee exports responding to the pull of the international specialty coffee markets is helping develop the coffee value chain. Because coffee is the largest foreign exchange earner for the country, it is naturally of interest to the government. These factors, the most important of which may be the cooperative coffee success, are contributing to the recognition that the time to officially reform the system is now.

Conclusions

Interventions in the Ethiopian cooperative coffee sector have had a significant positive impact on small-scale coffee producers and on coffee value chain efficiency, performance and sales. Producers have improved coffee quality, gained access to higher-value market niches and earned more income from their production. The new specialty coffee export channel is open for Ethiopia's smallholder cooperative producers.

The leverage point for the Ethiopian coffee sector development is the marketplace. A comprehensive value chain approach to global marketing has proven a successful framework for smallholder business development and market linkages. Linking coffee producers to international markets in an economy such as Ethiopia's, where many of the requisites to participation are weak, requires concerted institutional capacity building to support expansion. Strengthening the coffee cooperative sector was essential to opening smallholder exports. The success of the ACE program rests on a combined value chain and institution-building program for cooperatives and unions that enabled them to comply with international specialty coffee standards.

Case Two: Yemen’s Fragmented Smallholder Coffee Industry

Background

The Yemen coffee industry is one of legend. Yemen’s farmers have been growing a product prized in international markets for centuries; coffee is an integral part of Yemeni culture. From its birthplace in Ethiopia, coffee was brought to Yemen and commercialized. Yemen’s unique flavorful coffee was exported almost solely from the port of Al Mokka, which gave rise to the term *mocha*. Yemen’s strongly flavored coffees were blended with the smoother flavors of Indonesian coffee to produce probably the most widely known name in coffee, *mocha java*.

The country currently produces approximately 11,000 tons of coffee of which 15–20 percent or 2,000 tons is considered export quality. In recent years however, in spite of growing demand on the international specialty coffee market for unique coffees and continued high prices for Yemen coffee, the sector has been in sharp decline. This is due to lower productivity, increasing demands for water and, significantly, to competition with *qat*, which fetches larger economic returns for farmers. To increase coffee value chain competitiveness, the industry must develop a strategy to make coffee economically competitive with the lucrative but socially, economically and environmentally damaging *qat*.

The Yemeni coffee value chain is relatively straightforward from producer through to trader/exporter. The chain however is characterized by a large number of relatively small transactions, particularly close to production. There is little transparency in the market due to limited information flow. Producers typically harvest their crop, dry it and market to local collectors. Coffee is seen as a reserve or savings fund, and many small producers hold their coffee at the household level until sale is necessary to meet cash needs. These sales are usually small in volume, and the producer generally takes the price offered by the local collector. Local collectors then sell-on to larger collectors for consolidation. The product is then channeled to processors and finally to either the domestic market or exported. The value chain is inefficient due to fragmentation - small transactions for producer sales and the large number of collectors.

Prices paid to producers are still some of the highest in the world for Arabica. Smallholder producers’ average holdings are generally a fourth to a half hectare from which they produce about 150–200 kg of green coffee. Farmers are paid the equivalent of $5.00–$6.00/kg for green coffee. This equates to $2.27–$2.72 per pound to producers, equal to some of the more exceptional specialty coffees from Ethiopia, Kenya, Guatemala and Columbia, and more than twice the current NY commodity market (“C”) price. While this price structure does seem favorable for the producer, poor production techniques, lack of water, low yields and high production costs hamper expansion, especially in the face of the easier-to-grow and more lucrative *qat*.

Constraints

It is important to identify the Yemen coffee industry’s constraints in order to understand the industry’s decline and develop action items to counter the current trend. Some of these constraints are direct and some are indirect. Addressing any of these issues will have a significant positive effect.

- Limited water and poor plant nutrition constrain production.
- Productivity and quality systems are low and lacking in production and processing.
- Information transfer from exporter upstream to producer is poor and adversely affects quality.
- Farm size is very small with average size .5–1 hectare.
- The highly profitable production of qat draws producer resources.
- Technical support from the Ministry of Agriculture or other sources is limited.
- There is a lack of traceability required by high-priced specialty coffee buyers.

Quality

Since the 1950s, the international price of coffee has been declining at an average rate of 2 percent annually. The current situation in the coffee industry requires that coffee producers focus, more than ever, on a differentiated supply of green coffee beans. Producers of lower-quality coffee can hardly compete against producers in Brazil and Vietnam. Such high-volume production enjoys major economies of scale and comparative cost advantages. Larger roasters have been proven to substitute lower grown Arabica coffee for (cheaper) Brazilian and Vietnam coffee beans.

Specialty coffee can be defined as coffee with zero flavor-defects and an excellent cup-value. Yemen coffee is considered high quality but also very inconsistent due to processing and handling methods. Over the last 20 years, specialty coffee has changed consumers' awareness of coffee tremendously. The U.S. specialty coffee industry handles approximately 3.25 million bags of green coffee. The annual growth trend is 5–10 percent, largely made up of "distinct" coffees.

Only when the product reaches the larger processors is there an attempt to exercise quality control and grading to separate export quality from domestic. The chain is characterized by a lack of trust with little incentive to increase quality. Larger traders deal exclusively with collectors both at the local and regional level—usually four to five at the regional level who in turn receive from as many as a hundred at the local level. While all would like to see more of the product meet the quality requirements of the higher-value international markets, there has been little attempt to transfer information to the farmer about measures that could be taken to meet those standards. With quality issues not addressed until product consolidation, 35–40 percent of product must be channeled to the lower-value domestic or Saudi markets.

Most exporters dealing with collectors reported serious quality problems with large percentages of foreign matter, discolored or broken beans from milling and high moisture content. Although Starbucks is by far the largest single buyer of Yemen coffee, dealing primarily through Volcafe, exporters reported selling to several other buyer/brokers including Atlantic, American Coffee and Royal Coffee. Only 15–20 percent of Yemen's coffee meets the quality requirements of the high-value specialty markets. If the country is to take advantage of its comparative advantage in the high-value specialty market, a competitiveness strategy will need to be developed that includes all stakeholders, allows for learning and ultimately provides a more balanced power relationship that will lead to widespread benefits.

This strategy would encompass

- identification of the industry's competitive advantage (opportunities and constraints)
- development of a commercial upgrading strategy (investments and who will make them)
- creation of a process that will sustain competitiveness (i.e., coffee improvement association)

The Yemen *Qat* Issue

While coffee has a relatively high return to the farmer, it both competes with and complements a major cash crop, qat. Qat competes with coffee for land, water and labor in that the returns from growing qat are considerably higher than returns from coffee. But qat is a highly perishable crop that cannot be stored. Interviews with farmers revealed that income from qat is used mostly to meet daily cash needs.

Coffee complements qat in that it is stored by the farmer and serves a saving function. Coffee can be stored for more than a year and in extreme cases has been stored for ten years. The farmer sells his coffee as financial needs arise. Farmers describe coffee as a long-term investment crop and qat as a short-term income crop for daily needs. Total returns from qat can be more than ten times that of coffee.

Developing Cup-Value

Sensory characteristics include elements like aroma, body, acidity, flavor and aftertaste. Professional tasters follow a protocol for the evaluation of these characteristics. Well-trained tasters are able to separate personal preference from the sensory evaluation on the cupping table and this is an essential element in determining the potential of a coffee to satisfy needs of roasters and consumers. The next step is then to apply the cupping and tasting protocol to create a "common language." The implementation of cupping protocols involves more than purchasing cupping tables and utensils. It requires the effective transfer of know-how by cuppers from consuming countries that are proficient with the cupping protocols developed by the Specialty Coffee Association of America (SCAA). In addition, it is essential that evaluations for cup-value are done at various stages in the production cycle until the product reaches the buyer. As a result, producers and exporters gain valuable knowledge about the flavor attributes of the coffee they are trying to sell, which strengthens their position in negotiations.

Production

The total national production value of coffee at the farm gate is estimated at $59 million (11,000 tons green coffee times YR 1,045 per kilo). The average planting per farmer is 0.291 hectares with 394 trees and a production of 114 kilos. Average income per farmer is less than $600 per year (114 kilos times YR 1,045 per kilo). Net returns to family labor are $23 per day, a relatively good return except when compared to qat (see box).

Many of the fundamentals of coffee farming are not being followed and with some technical assistance, could improve plant health, yields and quality. Recommended steps:

- improve nursery management
- introduce shade trees
- improve (or introduce) pruning techniques
- stump old trees, remove and re-plant

Although coffee has survived for hundreds of years, limited water is the main constraint to Yemen production. It has been reported that the water table is getting lower, so the use of wells should be limited. However, catchments systems can be improved for limited irrigation. Mulching will also assist in retaining moisture, along with the introduction of shade trees. Little nutrition is being provided to coffee trees. This can be improved by training in sustainable methods of production, using worm culture, composting and especially green manure cover crops. Nutrition can be supplemented by using certain leguminous shade trees which will also provide a windbreak.

Processing

Technical training for quality improvement should begin with processing expertise to improve the percentage of washed coffee reaching specialty grade standards. Yemen has traditional methods of processing that add certain quality characteristics, but also cause defects and inconsistent product. This is an area where simple changes will immediately improve the percentage of specialty grade coffees available to the export market and enhance competitive position.

The current practice is to harvest coffee cherries and sun-dry them. Often, there is a mixture of various maturities and coffee cherries from different days are mixed in the same batch. Dried cherries are then stored for a period ranging from 6 months to 10 years. These are stored as a sort of "bank account" to be sold when cash is needed. Technical assistance can help minimize defects and also strengthen centralized storage of dried product. Recommended measures include:

- improve harvesting techniques by sorting cherry at the farm level
- improve drying techniques and understanding of quality drying
- separate lots and provide traceability back to the producer

After dried cherries are processed by the middleman or sold directly to the buyer, coffee still needs to be sorted by quality. Only a small percentage of export quality comes from this process which is then blended with coffee from other producers or regions. Many mills are dirty and use outdated equipment and impurities are common. Recommended steps are to:

- provide product traceability and separate lots based on quality
- improve communication among producer, intermediaries, millers/exporters and importer/roasters
- provide cupping training for quality control and product differentiation

Standards and Compliance

Even with a rich history of coffee production, Yemen has little or no organized coffee industry. With its anticipated expansion to include all key stakeholders and capacity building, some of these issues can be addressed through technical trainings. In addition, participation in international specialty market activities such as the East Africa Fine Coffee Association (EAFCA) conference and the Specialty Coffee Association of America (SCAA) conference would increase knowledge of quality and provide market contacts. A series of workshops should be started as soon as possible to teach cupping related to specialty coffee standards. Quality, traceability and consistency are needed to meet current buyer demands. Developing national coffee standards will enable Yemen to meet WTO requirements and communicate better with buyers.

For the Yemen coffee industry to become more competitive, it must reorganize to resolve compliance issues. A *requirement* is the formation of the Yemen coffee improvement association. Yemen coffee stakeholders, both public and private, agreed that Yemen can increase coffee earnings through improvements in production practices and by other means throughout the sector. This will also enable access to donor resources and increase involvement in the international specialty coffee industry. The newly formed association will:

- identify founding members and begin formally chartering an organization, then expand to include producers, collectors, traders, processors and exporters
- build consensus on industry constraints, opportunities and a quality action plan
- interact with other successful coffee organizations to identify competitiveness opportunities including EAFCA and SCAA
- develop and share knowledge of the international specialty coffee market segment, which emphasizes quality and traceability, through member technical trainings

While Yemen has not had a great deal of success with cooperatives or producer groups *per se* in areas such as Haraz and Bani Mater, local partners, the Haraz Project and the Hamdani Bros., have been working closely with producers, gaining confidence and trust. In Haraz, designated farmer representatives work with producers in extension for improved production and quality practices. In Bani Mater, the Hamdani Bros. have worked with area producers for decades. In both areas the introduction of more formal, organized producer groups that can exercise economies of scale will prove fruitful. One initiative will have producer groups perform some of the functions handled by local collectors with the ultimate goal of significantly reducing fragmentation in the value chain, while enhancing farmer value-adding as coffee producers. This would allow producer groups to improve quality, engage in bulking at the local level and deliver higher-volume consignments to larger processors. Consolidating the product in the hands of producers and adding value through improved quality will build market bargaining power and help farmers improve their margins. Building quality compliance upstream into the production network will strengthen Yemen’s entire coffee industry and the industry’s international position.

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