

Sustainable Coffee Trade

The Role of Coffee Contracts

by Peter H. May, Gilberto C.C. Mascarenhas and Jason Potts

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International Institute for Sustainable Development
161 Portage Avenue East, 6th Floor
Winnipeg, Manitoba
Canada R3B 0Y4
Tel: +1 (204) 958-7700
Fax: +1 (204) 958-7710
E-mail: info@iisd.ca
Web site: <http://www.iisd.org/>

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1.0 Executive Summary

The coffee sector is widely recognized as being an imperfect market facing considerable sustainability challenges on the social, economic and environmental fronts. Given the wide array of challenges to sustainability in the sector, it is of little surprise that a variety of different initiatives, programs and systems have been developed for dealing with specific pieces of the sustainability puzzle. Somewhat more surprising is how little attention has been given to the role of contracts in determining the conditions of sustainable production and trade. To the extent that market power and economic relations are key determinants of the opportunities for sustainable development among producers, one might expect the contract, as the final determinant of the social and economic relations between parties along the supply chain, to be a particularly useful tool for promoting the goals of sustainable development. With this possibility in mind, this paper provides an overview of the feasibility of using contracts generally, and specific contractual elements in particular, as instruments to catalyze sustainable development within the coffee sector.

Following an initial overview of the sustainability challenges facing the coffee sector, the paper provides an overview of the diverse contractual systems currently in use in the coffee sector. This section highlights the distinctiveness between “conventional” standard form contracts typically used as a basis for transactions in mainstream physicals and futures markets and “alternative” contracts used for promoting specific sustainability systems. The overview reveals the important role of conventional contracts in maintaining stability and predictability in international coffee trade as well as the general disregard which such contracts have for many of the production and processing methods so critical to sustainable development. An overview of three alternative contracting systems (Utz Kapeh, Fair Trade and the Starbucks Preferred Supplier Program) highlights the potential for using price, contract length, risk distribution and preferred supplier status as tools for reducing producer exposure to the market risks and uncertainties which threaten the livelihood of millions of small coffee producers around the world.

Following the overview of the different contracting systems currently in use, we analyze the challenges and opportunities facing the respective systems with a view to extracting key areas for further investigation and action. Through the analysis we conclude that there are essentially two different routes available for building sustainability within coffee contracts over the longer term:

1. through the use of market differentiation on the basis of quality characteristics including sustainability criteria
2. through the integration of sustainability criteria within homogeneous systems of coffee supply chains

Without promoting one vision or another, the paper concludes that the first vision faces significant challenges based on the current reluctance of consumer willingness to pay more for products differentiated on the basis of sustainability criteria while the second vision is challenged by the inability and/or unwillingness of industry players on the consumer side of the supply chain to unilaterally adopt (and pay for) the costs associated with the adoption of such practices. In both cases, the central obstacles to wider integration of sustainable contractual practices are the additional costs associated with such practices and the difficulty in assuming such costs on a unilateral basis in a freely competitive market.

Despite these basic challenges, the paper concludes that there is nevertheless significant opportunity for promoting sustainability through the use of specific contractual tools which can improve the transparency and stability of the market situation facing producers where such tools primarily involve a fixed cost investment. Among the most promising tools identified in the study are:

- Long-term agreements between producers and buyers so as to permit the planning of activities at least over a complete harvest cycle;

- The use of “price to be fixed” contracts, sellers call in physical contracts with producers and producer organizations
- Preferential supplier status in return for commitments to sustainable production practices
- Adaptations to futures markets (and the respective contracts) enabling enhanced producer access to risk management tools within such markets
- Adequate institutional or market-based guarantees to ensure actors honour their contractual commitments through market volatility;
- Increased transparency of the price formation process along the supply chain through enhanced access to information.
- Pricing differentials in recognition of the socio-environmental benefits associated with sustainable production practices based on either:
 - The expansion of differentiated, high value markets which integrate sustainability concepts
 - Explicit recognition of sustainable practices within the quality grading systems used for futures markets (via a certificates program);

In order to fully take advantage of these opportunities however, it is clear that some level of cooperative action either between stakeholders themselves or at the public policy level, will be necessary to enable the development of functional solutions in these areas. As a basis for determining where such cooperative action should focus among the above list, we conclude by proposing a number of research questions for further investigation with respect to each contractual element or area.

2.0 Sustainability in the Coffee Sector: Principal Challenges

2.1 Sustainable Development Concepts and Their Application in Agriculture

Although “sustainability” has been defined in a variety of ways over the past several decades, the Brundtland Report (1987) has provided the most widely-accepted and enduring definition at the international level. According to the Brundtland Report:

“Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It contains within it two concepts:

- *the concept of ‘needs,’ in particular the essential need of the world’s poor, to which overriding priority should be given; and*
- *the idea of limitations imposed by the state of technology and social organization on the environment’s ability to meet present and future needs.”*

Since the Rio Earth Summit in 1992, the international community at large has endorsed the conception of sustainable development outlined in the Brundtland Report—a commitment recently reaffirmed at the World Summit on Sustainable Development. The report is particularly notable for its insistence on the treatment of social, economic and environmental pillars of sustainability in an integrated and coherent manner. Given the often conflicting nature of indicators under different pillars however, it is clear that sustainable development is less about achieving perfection under any particular pillar and more about achieving balance between the different elements of sustainability.

The Brundtland definition nevertheless highlights two “guiding themes” which pervade the concept of sustainable development and its implementation. First, the Brundtland definition emphasizes the concept of “needs based” development, placing highest priority on ensuring that the needs of those social groups most vulnerable to economic interaction are met. Second, the Brundtland definition insists on a balancing between the needs of present and future generations underscoring the importance of seeking *systemic long-term* solutions to present problems.

Box 1: Brazilian Definition of Sustainable Rural Development

The Brundtland definition has provided the basis for the development of national definitions for sustainable development around the planet. Under the auspices of the Agenda 21 process currently underway in Brazil, sustainable agriculture has been defined as:

A productive system for food and fibre that guarantees:

- a) long-term maintenance of natural resources and agricultural productivity;
- b) the minimum of adverse impacts on the environment;
- c) adequate returns to producers;
- d) optimization of production with a minimum use of external inputs;
- e) satisfaction of human needs for subsistence and income; and
- f) attendance to the social needs of rural families and communities (*Agenda 21 Brasileira*, 1997).

The integrated approach and corresponding guiding themes under the Brundtland definition provide a useful starting point for assessing possible tools for improving sustainability within the coffee sector.

2.2 Sustainability in the Coffee Sector

As one of the most important commodities in terms of value traded globally, coffee plays a crucial role in the livelihoods of millions of rural households across the developing world. In addition to the estimated 25 million small coffee farmers who depend directly upon coffee as their primary source of income, coffee contributes significantly to foreign exchange earnings and plays a leading role in determining opportunities for employment and infrastructure development in more than 50 developing countries. The breadth and intimacy of the relationship between coffee producers and a host of intermediary institutions along the coffee supply chain makes the sector of critical importance to sustainable development at the local, regional and global levels.

The sustainability of the coffee sector is threatened along each of the pillars of sustainable development. A brief overview of some of the major challenges faced by the coffee sector provides a broad foundation for approaching the relationship between sustainability in the coffee sector and the contracting systems used in the coffee trading system.

2.2.1 *Declining Coffee Prices*

On a number of occasions over the history of coffee, but particularly over the past few years, coffee producers have faced grave crises. Since the 1980s, prices received by producers have dropped 70 per cent, from a level of US\$1.20 per lb. to about US\$0.50 per lb. in 2002, the lowest level in real terms experienced over the past century (ICO, 2002).

One of the principal causes of the current situation of economic crisis is *imbalance between supply and demand*. Research by the ICO reveals that while supply has grown at an annual rate of 3.6 per cent, demand has only grown at a rate of about 1.5 per cent/yr (ICO, 2002). Recently this has resulted in an excess stock of over 40 million bags, equivalent to 135 days of global demand. In the 2001/02 harvest alone, with demand for 106 million bags, producers put 113 million bags on the market. While there are many explanations for the recent trend towards oversupply, some of the principal causes include:

1. technological innovation permitting increased production on existing coffee farms and plantations
2. increased plantings, particularly in Brazil and Vietnam
3. low rates of global growth in coffee consumption

The effect of oversupply is witnessed most directly at the major coffee exchanges where price discovery for global coffee markets is achieved. Oversupply over the past several years has drawn coffee prices to their lowest levels in real terms in more than 70 years (OXFAM 2002). The decline in coffee prices in the international market, particularly over the past two decades, has had significant impacts on production technology, the living conditions of small farmers and rural workers, the environment in producing regions and the balance of trade of the exporting nations.¹

2.2.2 *Price Instability*

The damaging effects of long-term declining terms of trade facing coffee producers are exacerbated by significant price volatility. Over the past several decades, global export revenues from coffee have fluctuated

¹ For example, the imbalance between production costs and prices has brought change in the profile of coffee production, through migration from more sustainable systems (e.g., shade coffee) to high input production systems which are more intensive in their use of mechanization, irrigation and pesticides. (See Rice, 1996). In some cases, this imbalance has given rise to spurious competitiveness, derived from cutting wages (Oxfam, 2002; Contag/CUT/Oxfam, 2002). Since coffee production is labour-intensive, areas where wages are very low can be disguised as relatively “viable” even when prices are in decline.

between \$5 and \$14 billion per annum.² Price volatility together with rigidities of production and the consequent distribution of costs, make it extremely difficult for coffee producers and policy-makers alike to plan optimal production strategies. Meanwhile, fiscal uncertainty at the local and national levels places a significant constraint on the generation of a stable economic base for development.

Coffee production, as an agricultural crop, is highly variable depending on climatic and other environmental conditions. Since demand is relatively constant, climatic events significantly impacting overall production tend to have a corresponding impact on prices. While price volatility has its root in climatic variability, there is evidence of increasing volatility since the 1980s due largely to:

- reduced cooperation at the international level;³
- increased speculative activity by large funds in commodities markets;⁴ and
- deregulation in national markets.⁵

More capitalized sectors with market and information access can protect themselves from price variations and minimize risk through “just-in-time” strategies, and operations in the futures market through hedging or options markets. Producers and their organizations in most coffee producing nations, have insufficient training, capital or even infrastructure to protect themselves via futures markets against harvest and price variations. These negative factors, besides influencing the cost of capital, represent challenges to investment and maintenance of coffee plantings through harvest and beyond.

2.2.3 Low Sectoral Mobility

Overall, coffee prices are not linked to the sustainability of coffee production, processing and trading practices per se. At the margin, where coffee prices do not cover fixed costs, or are even below variable costs, the activity survives under low productivity, reduced quality and short to medium-term insolvency. The low mobility of resources and the sector’s relative inability to react in an efficient fashion to market signals captures many producers in a cycle of impoverishment and insolvency. Poor sectoral mobility is the result of producer investments (both financial and physical) in long-cycle coffee plantings, low levels of liquidity and the absence of viable alternatives for diversification. The irresponsiveness of growers to market signals is further exacerbated by poor access to market information as well as survival strategies which dictate expansion of production (low cost in the short term) over diversification of production (high costs over the short term). Those who have invested years of their lives and dedicated much of their land to unprofitable coffee plantings have little practical alternative than to await better days which is typically only possible at considerable social cost (May 1994).

2.2.4 Poor Access to Credit

Pre-harvest costs represent a considerable share of expenditures with coffee production. Producers’ lack of capital to finance these expenditures out of pocket is aggravated by difficulties in securing credit. The risks prevalent in the coffee market allow credit providers to raise interest rates, or to engage in unscrupulous business practices which create additional burdens on the economic sustainability of small coffee producers in particular. Insofar as credit is a tool for enabling diversification along the supply chain in terms of production

² International Trade Centre, *Coffee: An Exporter’s Guide*. (ITC, 2002), at 3.

³ The elimination of economic clauses from International Coffee Agreements since 1989 has reduced the effectiveness of international cooperation for stabilizing prices. See, for example, Bates (1997).

⁴ Increased activity by large funds in commodity futures markets over the past two decades has led to a weakening of the connection between price determination and market fundamentals giving rise to greater price uncertainty (UNCTAD, 1996).

⁵ Stefano Ponte, *The ‘Latte Revolution’? Winners and Losers in the Restructuring of the Global Coffee Marketing Chain*. (Centre for Development Research, 2001).

and processing activities or across products, it can also play an important role in generating greater stability and revenue returns while reducing vulnerabilities to market variations.

2.2.5 Market Power and Distribution along the Supply Chain

Although there has been a drop in producer prices affecting the value of exported coffee, at the level of large-scale distribution and retail sales, coffee revenues have risen. In part, higher consumer prices may be traced to increased segmentation of markets, the rise of specialty coffees and improvement in soluble coffee quality. However, even outside of this segment of the market, roasters have been able to maintain or improve product quality while at the same time reducing raw material costs. Although technological innovations to improve extraction rates from lower cost robusta varieties (ITC, 2002), may be responsible for part of the widening gap between producer revenues and roaster/retail revenues, it is unlikely that they fully explain this trend.

Box 2: The Varied Impacts of the Coffee Crisis

The coffee crisis today directly affects more than 25 million small farmers world-wide, and indirectly affects another 125 million people whose lives depend wholly or in part on coffee production, processing and marketing. In those producing countries most reliant on coffee for export earnings, the price drop combined with stable or increasing production costs, is tantamount to disaster. In Burundi, for example, nearly 79 per cent of all exports come from coffee (Table 1). Even countries less dependent on coffee earnings (such as Mexico where there are 280,000 indigenous growers and Brazil, where upwards of 230,000 small and medium coffee farmers employ around three million rural workers), are suffering considerably from the crisis.

Table 1: Coffee exports as a proportion of total sources of foreign exchange in principal producing nations – in per cent (%)

Between 50 and 79%	Between 20 and 32%	Between 11and 19%	Between 5 and 9%
Burundi	Sierra Leone	Madagascar	Papua New Guinea
Ethiopia	Nicaragua	Colombia	Costa Rica
Uganda	El Salvador	Tanzania	Ivory Coast
Rwanda	Guatemala	Haiti	Vietnam
	Honduras	Kenya	Dominican Republic
		Congo	Brazil
			Cameroon

Source: ICO, 2002.

The fall in prices affects different nations in different ways, depending on their level of technological sophistication and respective production cost profiles:

- a) where more modern techniques for productivity enhancement made it possible to reduce production costs, and where exchange rate devaluation favoured exports, some markets have been divided by those who can and those who cannot adopt such techniques. Those excluded, particularly small farmers and rural workers, have faced high unemployment rates; furthermore modernized production systems tend to be based on high input usage and monocultures, which have provoked both social and environmental externalities;
- b) a gap has arisen within the coffee market awarding producers whose capitalization enabled them to invest in promotion of specialty coffees (gourmet, organic or otherwise distinguished characteristics) prized in high value niches; leaving the vast majority in comparably lower valued, generic markets differentiated only by variety and sometimes by origin and subject to growing competition;
- c) where coffee revenues represent a key factor in household survival, the drop in prices has led to a decline in expenditure on medical care, education and communication, i.e., poorer living conditions;
- d) finally, where coffee serves as the only source of cash income for small farmers, the current coffee crisis has led many families to reduce their purchase of basic foodstuffs, to increase their indebtedness or to abandon farming altogether, contributing to a burgeoning urban crisis in developing nations

Indeed there is evidence that this phenomenon can be explained by growing concentration in distribution, processing and sale of coffee (Talbot, 1997; Morisette, 1997).⁶ For example, while the termination of export quotas in 1989 led to a drop in producer prices and in the volume of foreign exchange obtained by exporting nations, consumers did not experience a commensurate drop in the prices they paid for final products.

Based on price series for roasted and ground (R&G) coffee during the coffee market cycle from 1975/76 to 1993/94, Talbot (op. cit) calculates that the producers' share of final coffee retail prices fell from 30.4 per cent in 1975/76 to 16.8 per cent in 1993/94. Thus, while producer states were capable of retaining a substantial share of the rents throughout the 1980s through tariffs and supply management, this share dropped to nearly zero in the period immediately following the termination quotas. Over the same period, the share of surplus accruing to consumer countries grew from 46.8 per cent to 76.3 per cent (Figure 1), most of which accrued to traders and roasters, suggesting some ability to influence price at the retail level.

Box 3: The Role of Rents in Determining Distribution Along the Coffee Supply Chain

The distribution of surplus value accruing along the coffee chain can be classified in three categories: resource rent, strategic rent and monopoly rent (Talbot, 1997). Resource rents occur where scarce or location specific resources generate comparative advantages for coffee production in one area over another. That is, depending on climatic variation, soil fertility, product quality or the methods employed, coffee growers can secure different levels of surplus from their production at a given farm-gate price. Product pricing differentials associated with product quality and market valuation can create competitive differentials between coffee producers, as well as affect their relative capacity to react to price oscillations.

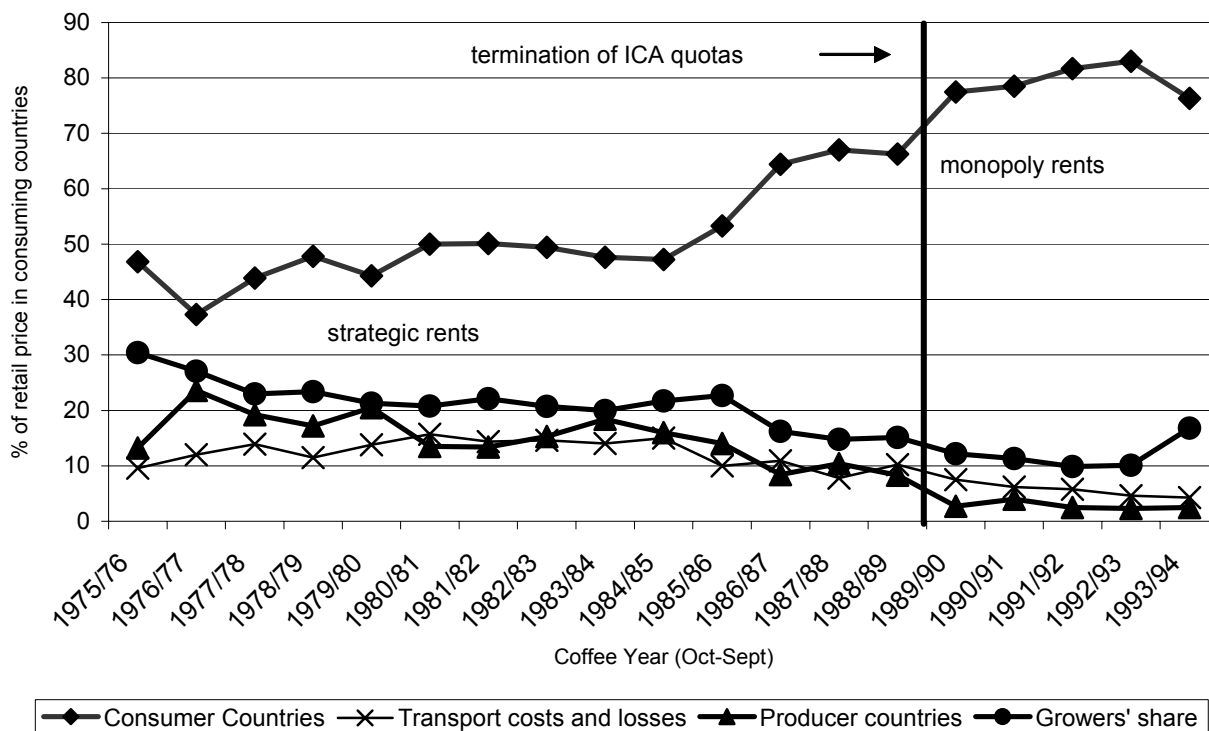
Strategic rents, on the other hand, typically result from market regulation, such as evidences by governmental or multilateral supply agreements which allow higher prices to be obtained than those that might occur were the market purely competitive in nature.⁷ Strategic rents for coffee producers were created during the period in which the economic clauses of the International Coffee Agreement (ICA) were in force. The system of quotas effectively constrained supply so as to enable producers to retain value, an outcome which would not be available short of strategic intervention in the global market.

Monopoly rents arise when a given economic actor controls a specific link in the supply chain giving rise to an ability to influence market prices. If market power allows certain players to raise consumer prices (monopoly or oligopoly) and, as a result, consumers purchase a lower volume of coffee, both producers and consumers can be expected to suffer reduced welfare. If market power allows buyers to drive down supply prices (monopsony/oligopsony), there may be a loss of surplus upstream along the productive chain, affecting raw material producers and suppliers in general.

⁶ Globally, in 2000 the top 10 roasters accounted for an estimated 63 per cent of all processed coffee sales. Similarly the five leading green coffee traders accounted for 40 per cent of global green coffee imports (ITC, 2002).

⁷ The coffee market is competitive in supply, but not in agglomeration or distribution, a characteristic common in sectors characterized by (relatively) homogeneous products whose supply is disorganized, and in which producers are therefore forced to behave as price-takers.

Figure 1: Rents in the coffee value chain: 1975-1994. Based on data in Talbot (1997)



It is nevertheless important to distinguish between the ability to influence consumer prices and the ability to influence prices paid to producers. Although recent history provides circumstantial evidence of roaster influence on retail prices, there is no corresponding evidence of roaster influence on world market prices—largely due to the fact that the industry concentration present in the coffee physicals market, is not reflected in the coffee futures markets (where the benchmark for prices for green coffee are established).⁸ In the futures market, roasters, traders, and investors interact creating a far more competitive environment than that found at any particular segment of the supply chain alone.

Nevertheless, the ability of industry players to capture an increasing portion of the consumer dollar, suggests that they also have the capacity to play a meaningful role in the rectification of the growing distributional gap along the supply chain, if not unilaterally, at least as a group. Indeed, there are many factors which suggest that such a strategy is not only in the interests of sustainable development as such, but actually in the business interest of industry itself. Under current economic conditions industry may increasingly be faced with:

- instability in supply, leading to continuation of cycles of high prices followed by crisis, with the possibility of periods of insufficient supply and the need to increase costs of carrying stocks, contrary to a “just-in-time” strategy;
- overall reductions in product quality, in which producers lack a price stimulus to adopt adequate production and processing methods (although the industry has combated this by adoption of new blends and quality grading methods);

⁸ It should be noted however that other players along the supply chain may have the power to impose monopsonistic pricing due to their controlling a specific link along the supply chain. The infamous “coyotes” of Latin America are well known for their ability to offer reduced prices to producers due to an absence of competing buyers and market information. Exporters which offer the sole market for a producing community or region may also have the capacity to exercise price influence at the local level.

- negative image of the industry arising from campaigns and boycotts by consumer organizations, resulting in potential loss of market share or brand reputation;
- loss of market share to first movers who adopt partnerships with producers and environmental organizations based on price-differentiated or other market access incentives.

The development and implementation of mechanisms for equalizing market power along the supply chain can play a role in protecting against certain negative impacts on business.

2.2.6 Information Asymmetries

Inadequate information reduces the ability of producers to negotiate with other actors in the value chain in the short-run while making it difficult to respond to market conditions appropriately over the long term. There is considerable asymmetry in the circulation and appropriation of market intelligence throughout the coffee value chain (UNCTAD, 2003). On the demand side, industry depends significantly on its ability to predict changes in the market for its own strategic planning and marketing strategies. Within the context of multi-national corporations, the resources available for generating market information are substantial and far outweigh those of producers. On the production side, in addition to the persistent lack of information due to inadequate communications infra-structures, there is also a lack of training to interpret information that is currently available.

2.2.7 Economies of Scale

Around 70 per cent of all coffee producers are small in scale, though the farm size and coffee growing areas differ greatly among producer nations (OXFAM, 2002). The small size of the production unit presents significant challenges in operating within the market, negotiating favourable terms of trade and in building competitiveness in commoditized markets.

Although producers have long recognized the value in consolidating marketing and processing activities through producer organizations, the ability of producers to take advantage of such systems is confronted by a variety of obstacles ranging from political pressures to geographical isolation. Where cooperatives and other producer associations do exist, their strengthening through managerial training and capacity building can improve the organization and quality of production thus enhancing the relative bargaining power of their smallholder members in a highly competitive market.

2.2.8 Inequitable Social Relations

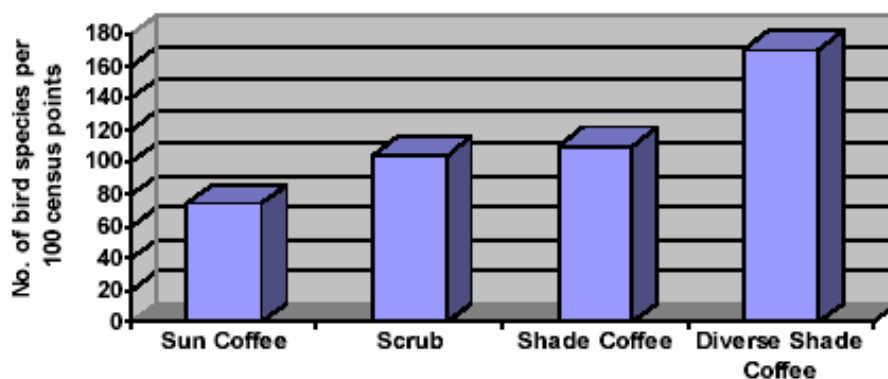
Social sustainability in coffee production is precarious, whether due to poor incomes, low wages for rural workers, unhealthy or unsafe working conditions. Unequal pay scales and a double or even triple workday for women and widespread use of child labour are rampant among rural households who desperately need more hands to help increase their incomes, however marginal their contribution. Low prices for coffee perpetuate these patterns, aggravated by failure of workers to organize collective bargaining strategies or of small farmers to undertake associative production organization (CUT/Contag/Oxfam, 2002). Regardless the presence of inequitable national employment conditions, the international market structure reinforces inequity in terms of trade, as the spread between producer and market prices continue their upward trend in most major traded commodities (Morissette, 1997).

2.2.9 Environmental Impacts

Although traditional coffee farming systems have relatively low-level environmental impacts, efforts over the past several decades to increase productivity have intensified the negative impacts of coffee production on the natural environment considerably. Public policy aimed at increasing productivity in Latin America in particular, has led to substantial transition from traditional shade-grown production to “sun” coffee or

“mono-culture shade” coffee.⁹ In Colombia, for example, it is estimated that 68 per cent of the total area devoted to coffee production has been converted to “technified” systems of agriculture (also known as “modern” or “High External Input Systems of Agriculture”) over the past 30 years (Rice and Ward, 1996). Such production methods pose clear dangers to the environment through the synthetic external inputs and reduced biodiversity they typically introduce. The traditional sites of coffee production around the world make environmentally-intensive production techniques particularly dangerous to environmental integrity—not just for local ecosystems but also for the planet at large. More than 80 per cent of the 11.8 million hectares devoted to coffee production around the world are planted in areas of former or current rainforest (Halweil, 2002). Coffee is currently grown in 13 of the world’s 25 biodiversity “hotspots”—areas of high biodiversity importance and vulnerability.

Figure 2: Number of different bird species by coffee production method (Peru)



Source: Greenberg, R. and R. A. Rice. *Manual de café bajo sombra y biodiversidad en el Perú. The Peruvian Shade-grown Coffee Primer*. Migratory Bird Center, (Smithsonian Institute, 2000).

Research comparing the biodiversity of high input and traditional shade coffee farms has found significantly higher flora, fauna and mammalian diversity in the latter. In Latin America, a 50 per cent reduction in avian biodiversity has been observed under sun growing conditions. In addition to aggravating soil erosion, reduced forest cover associated with sun and monoculture production reduces overall carbon sequestration. The shift from “diverse shade” systems to “monoculture shade” systems has been estimated to have resulted in a reduction of carbon stocks by 30 to 50 per cent in within coffee plantations in Latin America.¹⁰

Coffee hulling can also have considerable impacts on the environment. Wet processing techniques, which are used for approximately 40 per cent of global production, generate wastewater with a Biological Oxygen Demand (BOD) of up to 150 g/l (EDE Consulting, 2001). The discharge of large quantities of waste-water in

⁹Different forms of coffee production form a gradient between sun and shade-grown systems. At least five general types of coffee production systems have been identified: traditional; traditional poly-culture; commercial poly-culture; shaded mono-culture; and sun. The “traditional” and “traditional poly-culture” systems utilize the original forest canopy while the commercial and shade mono-culture varieties utilize commercially-introduced shade cover. See Faminow and Rodriguez (2001). The average rate of conversion to shade monoculture and sun coffees for Northern Latin America as a whole has been estimated to be 40 per cent (Rice and Ward, 1996).

¹⁰See PROCAFE, “Differentiating Salvadorian Coffee. Paper presented at the World Bank, October 2001 cited in Kristina Sorby, Background Paper to World Bank Agricultural Technology Note 30, “Toward More Sustainable Coffee” (World Bank, 2002). The role of coffee production as a stimulus for deforestation is not, of course, limited to Latin America. Research commissioned by UNCTAD on the environmental effects of coffee production in the Ivory Coast concludes that coffee has played a major role in reducing the country’s forested land from 16 million to three million hectares (Seudieu, 1993).

the first stage of coffee berry processing leads to reduced oxygen levels in water. This can threaten many forms of marine life.

Table 2: Biological Oxygen Demand (BOD)	
<i>BOD defines the amount of oxygen required to biologically break down organic wastes diluted in water. Some typical values:</i>	
Distillery waste-water	100 g/l
Meat processing waste-water	10 g/l
Paper mill waste-water	2 g/l
Coffee waste-water	150 g/l

Source: Enden and Calver, 2002.

3.0 The Relationship between Contracts and Sustainable Development

The above overview of the breadth of sustainability issues facing the coffee sector as a whole points towards a wide variety of causes of reduced social, economic and environmental sustainability for the sector including:

- Mismatched supply and demand
- Market instability
- Inequitable market power
- Information asymmetry
- Limited access to finance and capital
- Under-provision and conservation of social and environmental public goods

At first glance, the relationship between such a diverse range of factors and contractual arrangements is, perhaps, less than obvious. Sustainability relates to activities all along the supply chain, including activities throughout the market as a whole, whereas contracts are typically designed to manage the relations between two specific parties along the supply chain. If many of the sustainability challenges facing the coffee sector are “macro” in character and dispersed throughout the coffee market, the contract, as a tool for managing one relationship along the supply chain would appear to be an inopportune tool for either guiding, motivating or implementing sustainable production and trading practices across the sector as a whole.

In a certain sense, this initial reaction is well founded. It is clear that individual contractual relations alone cannot be expected to have major impacts on the macro-economic forces of supply and demand. Contractual form will not resolve the current economic crisis and is unlikely to provide a major force towards the development of well established producer organizations. However it is equally evident that contracts, may, through their substantive terms, influence actions which extend far beyond the specific parties to a contract. The current growth in a variety of certification systems for sustainable coffee is evidence of the potential role of contracts as enforcement tools for the implementation of sustainable practices both at the producer level as well at the processing and trading nodes of the supply chain. Another key feature of the contract of sale is that it effectively establishes the economic relations between parties. In a sector where the economic conditions facing producers is considered to be one of the primary obstacles to sustainability and distribution of revenues along the supply chain and tend to favour those on the consumption side of the bargain, the potential of contracts as a tool for improving sustainability within the sector cannot be rejected *a priori*.

The law of contract traditionally has its moral grounding in the theory of “freedom of the will.” Throughout the 18th and 19th centuries, contracts were regarded as tools for preserving the individual rights of free economic actors and, in so doing, formed the basis of modern free market economies (Kennedy, 1976).

Under this conception of the purpose of contracts the law focussed on contractual enforcement, having little to say about the content of contracts or context within which contracts were formed. Taken literally, any agreement between two parties justified the support of the law. Over the course of the 20th century, however, the impact of the social and economic context upon contractual formation became increasingly acknowledged both by regulators and the courts as critical to ensuring that the formation and enforcement of contracts forwarded overall social and economic welfare.¹¹ The main basis for this change in approach was the observance of disparities in social and economic power giving rise to contracts which so absurdly favoured one party over another that they could barely be considered to have been “freely accepted” by the disadvantaged party. The recent history of contract law thus points towards a systemic realization of the fundamental importance of social and economic relations in the determination of contractual outcomes which promote maximum social welfare.

The disparity in size and power between small producers and the purchasers of their coffee may be substantial and in such cases, the inherent disparity in bargaining power in the formation of any given contract may lead to systemically inequitable results. As a justification for the following analysis, however, one need not assume as much. Instead a mere recognition of the fact that contracts *do* reflect a formalization of economic relations between two (or more) parties and that such relations play a critical role in determining the opportunities for sustainable development available to the rural poor, is sufficient to warrant an investigation into the potential of contracts for promoting sustainability within the coffee sector.

Although contracts necessarily imply obligations between buyers and sellers, we shall, for the purposes of the remainder of this paper focus on ways in which the contractual process undertaken by buyers may serve as a means to improve the *economic sustainability* of producers. The purpose of adopting such a focus is not to ignore or suggest priority over the essential undertakings which producers must also make in the implementation of sustainable supply chains, but rather to avoid the detailed and technical discussion on the appropriate social and environmental standards associated with such producer undertakings. The point of departure for our analysis takes, as a given, the necessity of producer commitments to sustainable production practices (leaving the definition of such practices to the side),¹² and focuses on the question of how contractual elements might be able to ensure a more sustainable economic setting for producers who do in fact adopt sustainable practices. More specifically, our question is, whether or not (and if so, to what degree) contracts or contractual systems can promote:

1. price undertakings by purchasers which cover the social and environmental costs of production
2. price stability for producers (in return for adopting socially and environmentally sustainable production practices)
3. improved access to finance or capital for producers (in return for adopting socially and environmentally sustainable production practices)
4. greater value retention (more equitable distribution of the gains from trade) for producers (in return for adopting socially and environmentally responsible production practices)
5. improved market access and economic security for producers (in return for adopting socially and environmentally responsible production practices)
6. improved market information for producers (in return for adopting socially and environmentally responsible production practices)

In considering the possible role of contracts in addressing these diverse issues, we consider the current state of several contractual systems currently in use by various actors in the coffee sector.

¹¹ Common Law has established the “doctrine of unconscionability” to deal with egregious differences in contracting power. See, for example, Lord Denning’s leading decision in *Lloyds Bank v. Bundy* [1975] QB 326, [1974] 3 All ER 757.

¹² The content of socially and environmentally production practices is a discussion which has reached fairly advanced levels through a variety of different labelling and certification systems for sustainable coffee. Given the complexity of that discussion, we leave it to the province of standard-setting organizations, rather than treating it further in this paper.

4.0 Overview of Select Contracts Utilized in Coffee Trade

There are essentially two types of contractual arrangements that are adopted today in international coffee trade, which, for lack of more refined terminology, may be described as “standard” and “alternative” contracts. The former are traditionally adopted by the mainstream market and consist of basic norms that regulate transactions in the physicals and futures markets. These norms treat the characteristics and quality of the product, as well as aspects associated with marketing and delivery. Their objective is to provide greater security and predictability to buyer-seller relations, specifying the agreed upon quality, term, delivery location and price. In these contracts, characteristics associated with production processes are only relevant to the extent that they affect coffee quality.

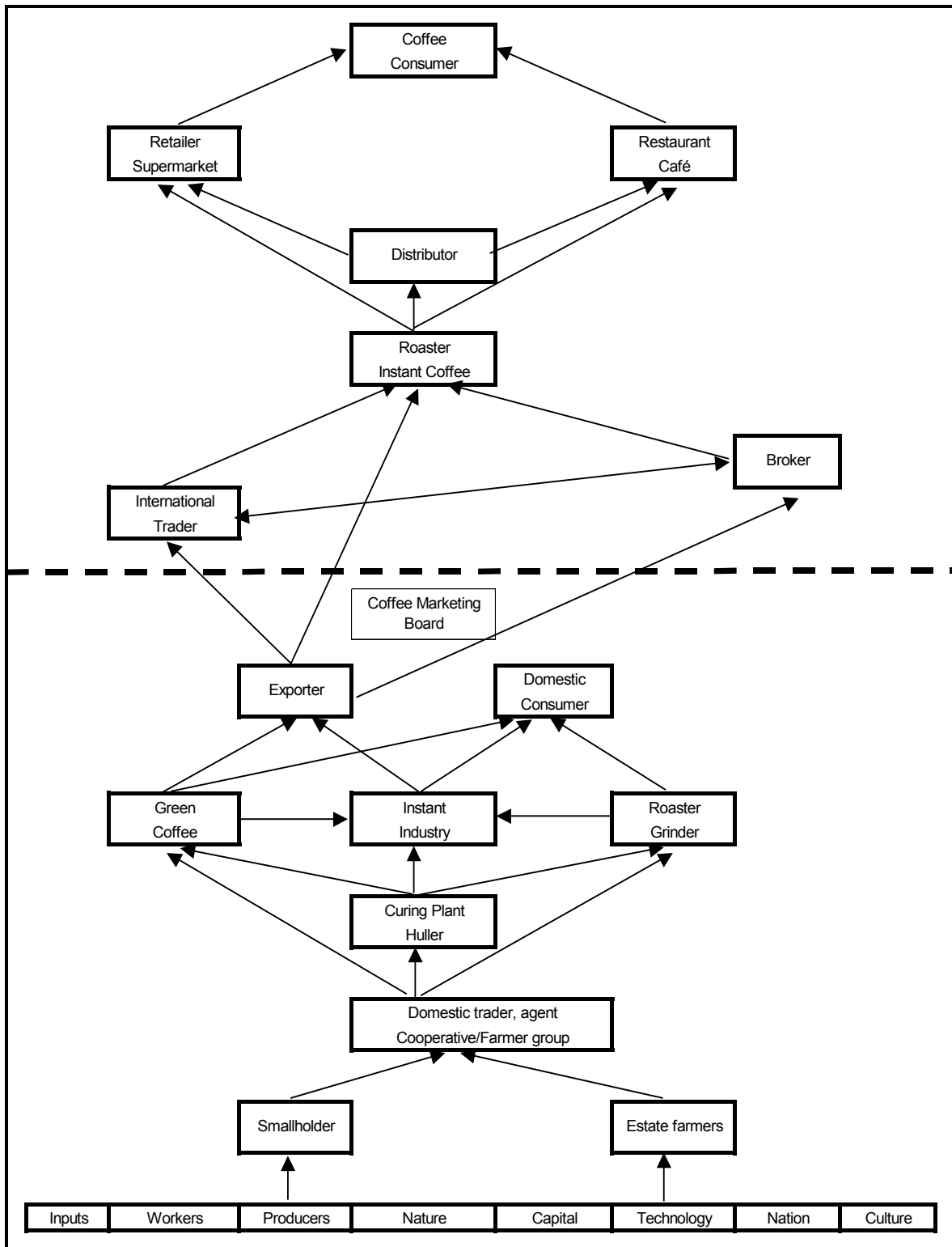
A number of alternative contracts, besides considering product characteristics, go beyond this by also specifying non-product related Process and Production Methods (PPMs) on the basis of social, environmental and economic objectives. Such contracts seek to proactively promote specific conceptions of social justice, environmental quality and economic viability in production systems, responding at least in part to the sustainability criteria described above.

4.1 Standard Contracts

The standard contracts used in coffee trade seek to guarantee purchase and sale of the product in markets characterized by great distance from exporter to importer and South-North trade relations. The standardization of contracts and terms of sale permit greater security in coffee marketing insofar as they stipulate elements such as product quality, price, quantities, shipping period and legal validity of the transaction. Figure 3 below provides an overview of the general structure of the coffee market chain.

Standard coffee contracts may be directed toward either physical or futures markets. In the case of the physicals market, sellers and buyers enter into an agreement that implies delivery of a determined volume of coffee, of a specific quality, in a specified time frame, whose price may be previously fixed or adjusted later, as in the case of PTBF (price to be fixed) *forward contracts*. Physical contracts allow sellers and buyers a greater degree of freedom to negotiate scheduling, product characteristics and ports of origin and destination to suit their specific needs. In this market, both sales for immediate delivery (*spot*) and those for the future (*forward contracts*) are treated as physical market transactions, as long as the negotiators undertake the transaction between themselves, through contracts and without intermediation of other institutions such as the futures market. Positions in the futures market serve as a basis for negotiations of physical contracts, but do not constitute actual operations in the physical market, as described below.

Figure 3: General structure of the coffee market chain.



Sources: Adapted from Talbot (1997), Ponte (2001), Ponciano et al (1995)

4.1.1 The Physical Coffee Market

In physical contracts, the principal market agents are exporters (sellers) and importers (buyers). Their arrangements may also involve auxiliary agents such as brokers, trading houses, agents, shipping companies, among others.

The principal export pathways in physical coffee trade are by the direct method or indirect sale via agents, and intermediary sale via Trading Companies. In the direct approach, the exporter will have already chalked up some previous experience with international transactions and thus is able to carry out all the necessary procedures, beginning with research on prices and potential buyers through to the actual negotiation. Direct exporters must be able to follow the market, command of the English language and be knowledgeable of forms of negotiation and export instruments. In indirect sales through agents, an intermediary in the country of origin or overseas carries out the negotiation in the name of the exporter, with a commission for services paid to the agent once the negotiation is concluded. Exporters who lack experience in trade or whose infrastructure is deficient often deal through a Trading Company to reduce risk rather than adopting direct or indirect methods.

In distinct contract forms, the responsibility for payment of costs associated with transport, insurance and delivery defines the commercial terms of trade, which are standardized in the coffee market. Figure 4 describes the principal forms of coffee contracts initiated in producing countries, and the principle responsibilities of sellers (exporters, producers, traders) in each transaction, vis-à-vis transactions costs and transport.

Figure 4: Sellers' responsibilities for costs of transactions in the international coffee trade.

<i>Operation</i>	FOB	FCA	CFR	CIF	DAF	EDK
Packaging						
Pre-Transport						
Export Formalities						
International Insurance					X/B	
Handling upon Shipment	X/B					
International Transport						
Handling upon Arrival						
Export Formalities						
Post-Transport						

Shaded areas define sellers' responsibility according to contract. X/B = Joint responsibility of Seller and Buyer. FOB – Free on board; FCA - Free-carrier; CFR – Cost and Freight; CIF – Cost, insurance and freight; DAF – Delivered at Frontier; EDK – Ex-dock.

There are a number of distinct means of payment for coffee sold in the physical market. The mode of payment adopted depends in part on the degree of confidence between the parties and on the condition of the market. In periods of oversupply, for example, exporters are often obliged to facilitate payment terms for the importer. The principal modalities adopted in the coffee trade are “payment net in cash against documents” (NCAD), whether on arrival or first presentation, and payment against a letter of credit (L/C).

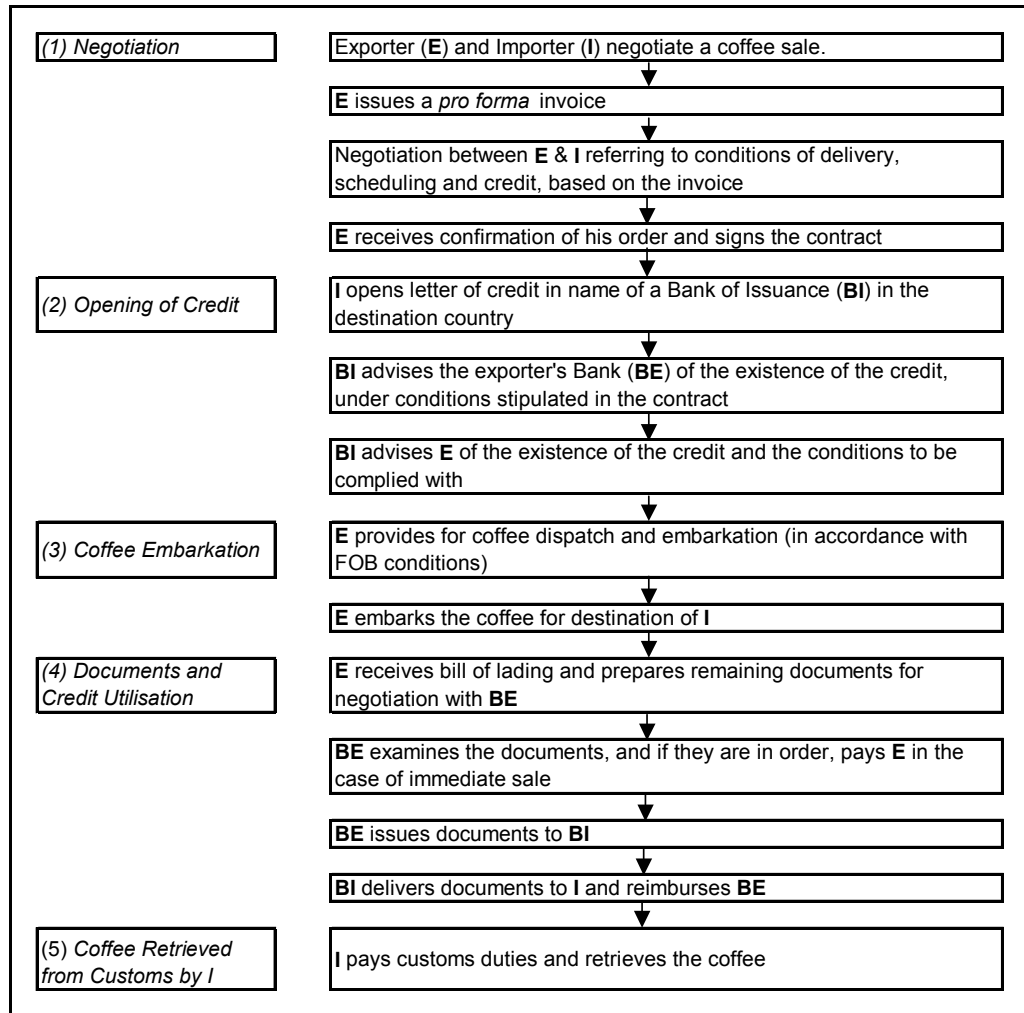
Although advance payment for export goods is an option, it is rarely adopted in coffee transactions, since it implies payment prior to embarkation and thus represents a high risk to the buyer. Such a payment term may be adopted in cases in which there is interest in financing the exporter, whether at the time of harvest or on acquisition of the product. A partial prepayment for pre-harvest costs may be desirable to stimulate adoption of sustainable production practices.

Payment terms of NCAD on arrival imply a risk for the exporter, since payment is only effectuated on receipt of the product in the destination. Risks related to shipping delays, nonpayment by the buyer and customs determinations (which affect sales to the United States, for example) that put the seller at the mercy of the courts in the buyer country are pertinent to these operations. In the modality “NCAD on first presentation,” the exporter issues a letter of exchange that will be sent to the bank in the importing nation, together with the embarkation documents. The importer is only able to retrieve the documents necessary to assure delivery of goods if it signs a commitment with the negotiating bank to cover the exchange call when this is presented.

The letter of credit (L/C) is the modality of sale that offers the greatest guarantees both to the exporter and the importer, functioning as an international order of payment emitted by a bank, at the request of the importer and in favour of the exporter, who is paid once the negotiating terms are complied with. The L/C can be issued either for immediate or suspended payment. The drawback is that it can imply additional banking charges and guarantees required by the bank (ITC, 2002).

Figure 5 provides a flowchart of direct coffee negotiation between exporter and importer, as an example of transactions in the physical market, sale FOB and adopting the L/C as a payment instrument.

Figure 5: Flowchart of a hypothetical coffee negotiation in the physicals market, direct FOB sale through Letter of Credit.



Source: *Informe BB*, 2001.

4.1.2 The Futures Market

Physicals markets, particularly in the case of agricultural commodities, demonstrate substantial variability in prices due to specificities characteristic of risks and imbalances in supply. For this reason, coffee producers are unable to predict the price their product will receive when harvested months hence, making it difficult to predict the appropriate level of costs and financing necessary over the production cycle.

On the buyer's side, there is a persistent risk of insufficient supply of a particularly desired quality of the product at the moment when it is most in demand, as well as a risk of having to purchase the raw material at prices in excess of projected price levels. The roaster thus has to assume additional costs associated with storing preventative stocks; while the producer lives in fear of a drop in price at the moment his product is ripe. In part, these problems are resolved through the presence of futures and options markets for coffee.

The sine qua non for the existence of a futures market is the existence of a physical market with sufficient volume of product with well-defined standards, a large number of competing participants in a market with

significant price fluctuation and volatility (ITC, 2003). These conditions are clearly present in the case of coffee.

Actors in the futures market include speculators, pension and investment funds, as well as importers and exporters. In these exchanges prices are negotiated for a determined volume of coffee of known quality delivered on a given month in a given locale. These values are determined through auction on the trading floor of the exchange. Besides serving as a buffer to risk for participants in the production and marketing chain, futures markets also have the advantage of signalling prices and trends in the market and establishing quality standards that then go on to be used throughout the industry.¹³

One important use of futures contracts is to reduce risk associated with variation in the prices of coffee and offer greater stability to agents in a coffee transaction, avoiding the need to incur costs of carrying stocks. Futures contracts are negotiated in commodities exchanges, their principal requirement being that the coffee be available physically in some place in the future, through standard contract specifications concerning the month of delivery and prices practiced (ITC, 2002). Negotiators in this market are more interested in risk management (hedge operations) or in simple speculation. A futures contract “is a standardized legal commitment to deliver or receive a specific quantity and grade of a commodity or its cash equivalent on a specified date and at a specified delivery point” (ITC, op cit., p.171).

In the futures market, trading agents negotiate obligations for delivery of a standardized product on a determined date (future position). Nevertheless, the volume of a given physical product negotiated is quite small; futures markets transact as much as eight times the physically available volume of a given good. The important thing is the commitment to honour these contracts, which most often occurs through purchase and sale of other contracts for future positions on these or other goods, substituting for those originally settled. In this market, buyers and sellers are more interested in managing risks (hedging) or speculation than in the physical coffee transaction itself. In few cases are sellers and buyers interested in the actual physical delivery of goods.

In this market, buyers and sellers are involved in *hedging* operations. Hedging is a strategy of transferring risks between agents. It implies entering into contracts for purchase or sale of coffee in the futures market against positions negotiated in the physicals market. In synthesis, this refers to the purchase or sale of a futures contract whose value is similar to a particular physical transaction, so that an eventual loss owing to price fluctuations is compensated by gains in the futures market, arising from the same price fluctuations. Similarly, if price variation would have yielded a net gain for the investor, the futures market annuls these gains.

It is thus clear that the physicals and futures markets are complementary rather than substitutes for each other. Hedging is the instrument that links them, acting as an anchor against price volatility in the physicals markets. Their correlation should be high since both markets are informed by conditions of production, income, complementary and substitute goods. However, their variations are increasingly linked to the expectations of agents and the action of speculators, which makes hedging bear some margin of risk, while it cushions market agents against future losses.

Price variations in coffee impose the need for guarantees (leveraged instruments) to assure that commitments between buyers and sellers are honoured. Both parties to the futures transaction must deposit in escrow about 10 per cent of the value of each lot they negotiate, which is covered on a daily basis with cash, titles, bank operations, etc. Since these deposits normally exceed marketing margins, hedging is often beyond the financial capacity of many smaller scale producers and exporters.

¹³ A complete description of the roles of these agents and the structure of the futures market can be found at the sites of the principal exchanges (e.g., NYBOT, LIFFE, BM&F) or in ITC (2002).

Barriers to entry in this market include little understanding of the dynamic variables of the market environment (information access), the size of minimum transactions required, the lack of modern infrastructure and a shortage of trained personnel dedicated to following and predicting market performance. Even where futures contracts do not imply large volumes (e.g., “mini-C”¹⁴ Arabica or ECF robusta contracts) such barriers make it difficult for sellers to access the hedging mechanism of the futures market, through which they could guarantee harvest prices. Exporters in developing countries are also penalized by their difficulties in accessing futures markets, resulting in their need to seek joint ventures or merger with northern traders to benefit from such instruments.

On the buyer’s side, complications also arise from entry into the futures market, due to the limitations associated with their ability to negotiate only the point of delivery of the future product through such contracts. Given their level of standardization, buyers in the futures market do not have the option of demanding determined quality characteristics of the product (although many roasters are adapted to this by blending), and may not know the origin or quality of the product until its actual delivery.

Options markets constitute an alternative to the futures market, in that the buyer or seller has the right but not the obligation to actually purchase or sell the product. To provide this option, a premium is paid over the demand price. If at the moment of purchase the market price is below that defined in the option contract, the buyer can exercise his right to purchase the product from another source, avoiding exercise of the option, but he must still pay the premium. Producers are rarely able to enter into options contracts due to the lack of an auction infrastructure (and in some cases lack of appropriate legislation) to enable them to exercise this instrument. The payment of security premiums is made difficult by their lack of capital after many years of low revenues.

4.1.3 Current Mainstream Coffee Contracts

The most widely used contracts that have become a reference in physical coffee transactions are the Green Coffee Association (GCA) Arabica contract chiefly aimed at the American market, and the European Coffee Federation ECC contract, aimed at the European market. These contract systems differ primarily on coffee species (*Coffea arabica* vs *C. canephora*), rather than other aspects of the transaction.

The coffee contracts analyzed below refer to transactions in the physicals and futures markets, as follows:

Physicals markets:

- Green Coffee Association Contracts Terms and Conditions – norms for coffee marketed in the USA;
- European Contract for Coffee (ECC) / European Coffee Federation (ECF) – norms for coffee markets in the European Union;
- Contract for Arabica coffee made available by the Bolsa de Mercados e Futuros (BM&F), São Paulo, Brazil.

Futures markets:

- Coffee “C” Rules and Mini Coffee “C” Rules (NY Board of Trade-NYBOT)¹⁵

¹⁴The New York Board of Trade introduced the “Mini C” contract in 2003 specifically with the purpose enabling smaller roasters and producers to have access to the benefits of the futures market.

¹⁵ The difference between C and Mini-C is the quantity of green Arabica coffee that represents a formal lot and scheduled futures months. The former amount is for lots of 37,500 pounds, and the latter, 12,500 pounds; the scheduled months for Mini-C are those immediately before C contract months; in these contracts coffee is priced in a US\$ cents/pound basis.

- Exchange Contract n° 406 Robusta Coffee Futures Contract: (A) Contract Terms and (B) Administrative Procedures (London International Financial and Futures Exchange - LIFFE/EURONEXT)¹⁶
- Contracts for buying and selling coffee on the BM&F (São Paulo): futures contract for Arabica coffee; option to buy a future lot of Arabica coffee; future sales contract for Arabica coffee; future sales contract for Robusta (*Conillon*) coffee; option to buy a future lot of Robusta Conillon coffee; and a contract for option to sell a future lot of Robusta Conillon coffee.

The aforementioned standard green coffee contracts have some of the following common features:

- They are based on the quality of the product or on marketing functions, primarily linked to delivery period, quality, packaging, means of transport, purchase and sale documents, insurance and export/delivery expenses;
- They are applicable to the commodities market, operating at great distance (physicals) and based on the impersonal nature of relations between buyers and sellers (physicals and futures);
- Characteristics linked to production processes or origin of the product are only referenced when they affect the quality of coffee as defined by classification systems;
- Price relations are solely determined by market mechanisms, although these mechanisms enable speculation on the part of economic agents, particularly in the futures markets;
- Price premiums or discounts are determined as a function of determined origins (linked to quality) and vary with oscillations in supply or demand.

4.1.4 Premiums for Coffee Quality or Origin

The two coffee species marketed internationally, Arabica and robusta, have their quality determined by environmental conditions in which the crop develops, and by the process of harvesting, post-harvest treatment and processing through which berries are transformed into green coffee. The environment is important to coffee characteristics, particularly temperature, rainfall and altitude. Within a given environment, quality depends mostly on the primary processing stage, which is differentiated in two processes. In “wet processing,” mature fruit are harvested, depulped, fermented and washed, and afterward dried, hulled and polished. Such washed coffee (Mild or Washed) is considered of better quality. The process is usually performed with Arabica coffees. In the dry method, the berries after being harvested are dried and later hulled using appropriate machines. When this method is used, the resulting product is called Hard Arabica or Robusta. These types of coffee are marketed separately in international commerce and are priced accordingly.

The ICO classifies coffees for export by type. The principal types are: Mild Arabica (Colombian Milds and Other Milds), Hard Arabica (Brazilian Naturals) and Robusta (Several Origins), the price declining from first to last in this listing (Table 3).

¹⁶ The LIFFE Robusta Contract, issued on February 11, 2002, is on five metric ton (1 t=1000 kg=2,200 lb) lots, priced on a US\$/t basis.

Table 3: Coffee types commercialized in the international market

General	Type	Principal Producing Countries
Mild Arabica	Colombian Milds	Colombia, Kenya and Tanzania
	Other Milds	Guatemala, Mexico and India
Hard Arabica	Brazilian Naturals	Brazil and Ethiopia
Robusta	Several Origins	Vietnam, Brazil, Ivory Coast
		Indonesia and Uganda

Source: Ponte, S. (2001).

International traders are typically concerned with characteristics such as uniformity and consistency of green coffee. It is also essential to be aware of the species, the type of processing (wet or dry) and the coffee's region of origin. Traders also rely on the official classification (*official grade standard*) which may vary with origin, but generally refers to the size of the beans, their density, format and number of defects found in a sample. Some roasters insist on pre-sampling with the aim of testing the intrinsic value of coffees, a characteristic that is not evaluated according to official classification procedures. This practice is principally reserved for those coffees with greater value, such as the Arabicas.

The differences in value for Arabica and robusta coffees, following the norms of the "C" contract (New York) and Robusta 406 (London), depend primarily on the number of imperfections found, the origin and port of destination. These criteria are summarized in Box 2.

Box 4: Price differentials in the coffee market.**Differentials for the “C” Contract in Arabica Coffees**

a) Imperfections: differential of 10 points for each imperfection below the basis. No deliveries will be permitted for coffee containing more than 15 full imperfections, or 23 imperfections; except in case of Colombian coffee, no delivery containing more than 10 full imperfections below the basis shall be permitted.

b) Differences in value between various grades and growths (in points)

Basis: Mexico, Salvador, Guatemala, Costa Rica, Nicaragua, Kenya, New Guinea, Tanzania, Uganda and Panama	Basis (pts)	Basis + Peru and Honduras
Colombia	+200	+200
Honduras	-100	
Venezuela	-100	-100
Burundi, India, Rwanda	-300	
Peru	-100	
Dominican Republic, Ecuador	-400	-400
India		-100
Burundi and Rwanda		-300

c) Differentials in value between delivery ports (points)

Basis: New York District Ports

Minus 125 points: New Orleans, Miami, Antwerp, Hamburg/Bremen, Houston (after 2005)

Differentials for the Robusta Coffee Futures Contract – no. 406

a) Main origins of coffee (tenderable): Angola, Brazilian Conillon, Cameroon, Central African Republic, Ecuador, Ghana, Guinea, India, Indonesia, Ivory Coast, Liberia, Malagasy Republic, Nigeria, Philippines, Republic of Zaire, Sierra Leone, Tanzania, Thailand, Togo, Trinidad, Uganda, Vietnam.

b) Grades tenderable:

Type 1: up to 150 defects per 500 g at basis.

Type 2: from 151 to 250 defects per 500 g at a discount of US\$15 per tonne.

Type 3: from 251 to 350 defects per 500 g at a discount of US\$30 per tonne.

Type 4: from 351 to 450 defects per 500 g at a discount of US\$45 per tonne.

Coffee containing more than 25 per cent passing through screen 14 round and less than 10 per cent passing through screen 12 round shall be tenderable at a discount of US\$60 per tonne.

4.1.5 Price to Be Fixed (PTBF) Contracts

Contracts for physical delivery of coffee at a future date may specify a specific price for the coffee at the time of contractual formation, or they may agree to fix the price at a later date based on the world market price at that time. The use of a flexible pricing strategy, through such “Price to Be Fixed” or PTBF contracts helps the contracting parties to match their hedging activities with existing commitments and thus can result in cost savings through reduced transaction costs. At the limit, some PTBF contracts allow one of the parties to unilaterally determine when the price will be fixed thus giving them still greater flexibility in their risk management strategies. When one of the parties has the right to unilaterally determine the time for fixing the price of the contract the contract is referred to as a PTBF “seller’s call” or “buyer’s call”—depending upon which party is delegated this right in the contract. In most cases, PTBF contracts are “buyers call” and used in favour of roasters (ITC, 2003).

4.2 Alternative Contracts and Arrangements

Three types of contracts are analyzed below regarding alternative contracts and certification schemes: one referring to the marketing of so-called fair trade coffee, according to the norms of the Fair Trade Labelling Organizations International (FLO), a contractual arrangement referring to a pilot project initiated by Starbucks Corp., seeking to implement sustainable production processes with preferred suppliers, and the Code of Conduct developed by Utz Kapeh Foundation. This analysis is based on the following documents (see Annex 2 for Web sources):

- Fairtrade Labelling Organizations International (FLO) Producer Contract; and Fairtrade Standards for Coffee (Fair Trade Labelling Organization-FLO) (FLO criteria);
- Starbucks’ Pilot Program for Preferred Suppliers, Green Coffee Purchasing Guidelines and System for Independent Verification (Starbucks Corp.) (Starbucks’ criteria); and
- Utz Kapeh Code of Conduct and Procedures (Utz Kapeh Procedures).

4.2.1 The FLO Producer Contract

The fair trade system represents the most obvious and direct attempt to adjust the conventional contractual form in an effort to provide additional economic benefits to producers. The first fair trade labelling initiative with clear sustainability criteria for coffee dates back to the formation of Max Havelaar Holland in 1988. Today, there are about 100 fair trade importers in 18 European nations, as well as in other countries such as Australia, Canada, Japan and the USA. In Europe, fair trade products are commercialized in about 64,800 sales points and annual revenues surpass Euro 260 million.

Although fair trade labelling is now available for several different agricultural products¹⁷ coffee represents the largest and most mature fair trade market. From April 1997, all commercial labels adopting fair trade principles in 16 countries began to be coordinated by FLO. Sales of fairtrade coffee reached 14.4 million kg in 2001 (ITC, 2002).

Despite the expansion of trade and the value this initiative represents for small producers in the South, fair trade commerce still constitutes a very small niche market, absorbing only 0.02 per cent of all international trade (Bowen, 2001). For some products, however, this line has achieved a fair market penetration, as is the case with bananas, which commands a 15 per cent market share in Switzerland.

¹⁷ Current certifiable agricultural products, other than coffee, through FLO include tea, cocoa, honey, bananas, mangoes, orange juice and sugar.

FLO criteria are associated with certifiers' verification that producer organizations observe international standards and labour conventions, as a basis for progress toward conditions that have been defined specifically with reference to fair trade in coffee (FLO, 2003). These criteria are summarized as follows.

Social development

In the area of social development, FLO standards relate to requirements in four areas: a) development potential; b) small farm target; c) democracy, participation and transparency; and d) non-discrimination. These may be summarized as follows:

- ❑ *Development potential*: producer organization should be able to demonstrate that their revenues from fair trade will be used in the effective promotion of small farm socio-economic development.
- ❑ *Small farmers* targeted in FLO commercial transactions are classified as such if they are not “structurally dependent on permanent hired labour, managing their farm mainly with their own and their family’s labour-force” (FLO, 2003, p. 3).
- ❑ *Democracy, opportunities for participation and transparency* aims at self-management and participative enterprise management, as adopted in voting systems and General Assembly participation.

FLO standards also require compliance with ILO Convention 111 prohibiting discrimination among workers. It is worth noting that although ILO core labour standards form a central element in FLO criteria across agricultural products, they arguably play a role of lesser importance in certified coffee by virtue of the fact that FLO criteria only permit small holder producers with little to no hired labour supply in the fair trade market at present.¹⁸

Environmental development

Environmental protection is sought as an objective of production practices, adapting or converting cultivation methods to incorporate Integrated Crop Management, which seeks avoidance of excessive use of pesticides and the adoption of natural disease and pest protection. FLO encourages progressive adoption of organic fertilizers and natural soil fertility maintenance. As minimum requirements, producers should obey national and international norms regulating use, management, storage and destination of pesticide containers, the protection of water resources, preservation of virgin forests and natural ecosystems, and should adopt soil protective cultivation techniques. Regarding the use of pesticides, it is explicitly prohibited that none be applied whose use has been the object of explicit warnings by international agencies (WHO and FAO) or that are on the PAN “dirty dozen” listing.

Economic development

FLO standards apply to production of both Arabica and robusta coffees. As a starting point, fair trade coffee contracts follow the same conditions specified in standard contracts. *Price specification* is based on international standards, including adoption of “*price fixation at seller’s call*” (that is, the futures market is used as a reference point for pricing). Once fixed, prices cannot be modified by either of the parties. Arabica prices are defined on the basis of the “C” contract in the New York Board of Trade, while robusta pricing is based on the LIFFE “LCE” contract, which we have described above as the standards in the market.

However, in addition to this, the FLO system adds a number of specific criteria as a means to guarantee that producers receive stable and “fair” economic conditions. The fair trade coffee criteria attempt to do this by requiring buyers to provide specific economic benefits to producers through the contract in order to have coffees labelled as “fair trade”. The key fair trade economic criteria include:

¹⁸ Personal Communication with FLO, 2004.

- Provision of a floor price which the purchaser must ensure to the producer or producer association (see table 4 below)
- Where the market price exceeds the FLO floor price, buyers must pay a premium (US\$0.05 per lb.)¹⁹
- Pre-financing of production by advancing up to 60 per cent of the fixed or reference price (if requested by producers)
- Long-term buyer/seller relations, beginning with one harvest cycle

Although these benefits are typically referred to as fair trade “requirements,” the pre-financing and long-term relations elements of the fair trade system have, by default, remained largely optional within the system.²⁰

Table 4: Minimum prices and premiums for coffees negotiated through the FLO contract system in US\$/lb.

Type of coffee	regular		certified organic	
	Central America, Mexico, Africa, Asia	South America, Caribbean Area	Central America, Mexico, Africa, Asia	South America, Caribbean Area
Washed Arabica	1.26	1.24	1.41	1.39
Non-washed Arabica	1.20	1.20	1.35	1.35
Washed Robusta	1.10	1.10	1.25	1.25
Non-washed Robusta	1.06	1.06	1.21	1.21

Source: FLO Web site (2003).

4.2.2 Starbucks Preferred Supplier Program

In 2001 Starbucks Corp. began a pilot program for linking preferred supplier status with performance along social and environmental criteria. The Starbucks model is notable for its specification of an explicit but scaled

¹⁹The rationale for the premium is twofold: (i) to ensure stability within the fair trade system by retaining supply in time of high world market prices and (ii) to encourage and enable economic development and diversification among producers. If prices are left open under contract, the parties are expected to negotiate guarantees for any advances received. Contract terms are to remain in force up to three months after harvest. If the coffee remains in storage for a longer period, the importer is required to cover additional storage, interest and insurance charges.

²⁰In a 2001 study of North American importers of fair trade coffee, a vast majority indicated that they did not provide pre-financing for their fair trade coffee purchasers and would not be able to if so requested. See Potts (2003)

premium for the adoption of specified practices at the farm level making it fundamentally a “market-driven” model. Below is a brief overview of the features of the pilot program.²¹

The purpose of the “Starbucks Green Coffee Purchasing Program” is...

to encourage continuous improvement in sustainable coffee production. Our ultimate goal is to create a fully sustainable coffee production supply chain... The ultimate goal would be to have all sustainability factors included in the cost of production, and therefore, covered through our outright pricing program. (Starbucks, 2001, p. 2).

²¹The pilot program is finishing in 2004. A modified version is expected to form the basis of Starbucks’ purchasing strategy from 2004 onward.

The essential features of the pilot program include:

- a) Specific requirements regarding quality;
- b) Price incentives, based on a point system for social, environmental and economic criteria (see Table 5);
- c) Option to treat as *preferred suppliers* producers who participate in the program, at least throughout the period of the pilot program;
- d) An independent system of verification.

Quality requirements limit this program to Arabica coffees, with “zero defects in grade, good even colour, and consistent bean size.” As flavour requirements, they should be characteristic of their region of origin, as well as “perfectly clean cup, with medium to heavy body and excellent aroma. All washed coffees must be of Good Hardbean or better density and have good acidity” (Starbucks, 2001, p. 4).

Price incentives allow an increment of up to US\$0.10/lb., for a total of up to 100 points, at the rate of US\$0.01/lb. for each 10 points, so as to encourage gradual improvement in sustainable production practices. Each of the criteria listed in Table 5 are described in greater detail in the company’s guidelines (Starbucks, 2001). These indicators closely follow some FLO standards, but the point system places a greater weight on environmental than on social concern. Coffees with organic certification receive an additional premium of US\$0.15/lb. *Preferred supplier* status is only conferred on those suppliers who attain the full 100 points on the scale.

Although the Starbucks model does not specify floor prices, the quality requirements for such coffees earn them a healthy premium over world market prices on the conventional market.²² Over the course of its experience with the pilot program, Starbucks reports that its conferral of preferred supplier status is a far more important driver for bringing producers to adopt the sustainable practices outlined in its preferred supplier program than the actual premiums associated with such practices.²³

Table 5: Starbucks’s point system for preferred suppliers.

ENVIRONMENTAL IMPACTS		SOCIAL CONDITIONS		ECONOMIC CONCERNS	
Soil management	5	Wages and benefits	10	Transparency from supplier to farm level	20
Water reduction	5				
Clean water	5				
Water buffer zone	5	Health and safety	10		
Forest and biodiversity conservation	5				
Use of shade	5				
Energy use	5	Living conditions	10		
Pest management	5				
Accepted agrochemical	5				
Waste management	5				
Sub-Total	50		30		20

Source: Starbucks, 2001.

²² In its 2002 Annual Report (http://www.starbucks.com/aboutus/CSR_FY02_AR.pdf), Starbucks informs it does not use the “C” contract or NYBOT pricing as a guideline, but rather purchases coffee at “outright” prices that averaged US\$1.20/lb. in FY2002.

²³ Personal communication with Sue Mecklenberg, February 2004.

4.2.3 *Utz Kapeh Code of Conduct*

The Utz Kapeh (“good coffee” in Mayan) Foundation, with headquarters in the Netherlands and Guatemala, certifies coffees according to its own Code of Conduct, as well as offering to serve as an interlocutor in negotiations between producers and buyers, although it neither interferes in such negotiations nor in the related commercial transactions. Utz Kapeh also supports projects involving conversion of traditional coffee plantations to those that adopt sustainable production criteria specified in its Code of Conduct, through partnerships to seek project finance. According to its mission statement, the foundation serves “to enable coffee brands to credibly and transparently demonstrate their commitment to sustainable development at the producer level.” (Utz Kapeh Procedures, 2003:1)

Utz Kapeh adopts the EUREP-GAP (*The Euro Retailer Produce Working Group*) sustainability criteria, a standard-setting body for international certification and procedures for good agricultural practices (GAP), which many European retailers have begun to require of their suppliers (Giovanucci, 2003). In addition to this, the Utz Kapeh standard included standards for labour conditions and workers’ rights (based on ILO standards) throughout the supply chain.

As regards production processes, the Utz Kapeh Code of Conduct treats primarily the following concerns:

- Maintenance of agricultural registration
- Traceability
- Soil management care
- Use of fertilizers and irrigation
- Crop protection
- Hygiene
- Worker safety
- Prevention of environmental and human contamination from planting through post-harvest
- Destination and recycling of crop residues and toxic product containers

With regard to labour conditions, the Code of Conduct provides specific rules regarding protection of workers’ welfare and health (Utz Kapeh Procedures, 2003). As regards the offsite environment in complement with the onsite practices, rules seek to avoid deforestation, agricultural impacts on the environment and wildlife as well as promote efficient energy use.

The foundation’s strategy is to add value to those coffee brands that display the Utz Kapeh label, indicating adherence by producers and market agents along the coffee commercial chain to its Code of Conduct. This includes a commitment by buyers to enter into long-term commercial relationships with producers. Participants in these agreements sign a letter of intent and enter into a licensing agreement with Utz Kapeh to allow use of the label by registered producers, exporters, traders and roasters.

Utz Kapeh adheres to the principle of market-based pricing, avoiding the use of a floor price approach, although it recommends that buyers pay a “Sustainability Differential” to producers at times of low prices. This differential is not fixed but rather defined through free negotiation among sellers and buyers in reference to the value the Utz Kapeh label is perceived to add to their products. When prices for Arabicas are below US\$0.70/lb in the NYBOT “C” contract, Utz Kapeh recommends its accredited buyers pay a premium of US\$0.07/lb for washed Arabicas and \$0.04 for unwashed. In the case of robustas, referenced by the London market, when prices drop below US\$650/ton Utz Kapeh recommends premiums of US\$0.05/lb and \$0.03/lb, respectively, for washed and unwashed robustas (Giovanucci, 2003). It is not clear how Utz Kapeh actually monitors or enforces the application of its recommended premiums. Producers pay the costs of certification, although in low-price periods, the foundation *expects* buyers to contribute to part of these costs, although it is not always clear that this expectation is fulfilled. Utz Kapeh Foundation lists 28 suppliers as having adhered to its programme, in several Latin American countries, as well as Uganda, Vietnam and

Indonesia. Nine roasters/traders/exporters have used to the label and its associated Code of Conduct (Web site viewed at 14 Nov. 2003).

5.0 Analysis of Existing Coffee Contracts

Understanding the prospects for using or adapting elements of standard and alternative coffee contracts with a view to promoting greater sustainability in coffee production and trade necessitates the simultaneous consideration of three related issues:

- The social, environmental and economic conditions of coffee production;
- The transaction costs associated with the adoption of specific contractual practices; and,
- The specific relationship between contractual form and the economic circumstances of producers

In our analysis below we consider these issues with respect to the standard and alternative contractual elements.

5.1 Conventional Contracts

Standard contract instruments used in the coffee trade as currently formulated do not specify differential market access or offer premiums associated with the environmental or social context of production. In order to incorporate such characteristics, they would require adjustment (see Table 6). Nevertheless, these instruments contain the basic mechanisms that govern long-distance commercial relations and represent a reference point for the definition of tangible product quality standards. Standard contract instruments establish a transparent and predictable playing field among parties interacting across nations and supply chains and, as such, play a critical role in ensuring the overall efficiency and functioning of the coffee trading system. The standard contract instruments thus help to promote the overall *economic sustainability* of the entire coffee trading system.

With respect to the specific objective of ensuring that the prices paid to producers cover social and environmental costs associated with coffee production standard contracts do not, in and of themselves, play any direct role at present. However, the trading of coffee and coffee futures on the basis of such contracts, by fulfilling the price discovery role on the world market, *does* play a critical role in determining the baseline prices received by producers for their products. Moreover, the fact that the price discovery mechanism on the futures market currently distinguishes between different grades of coffee (based primarily on physical characteristics)²⁴ through the allocation of differentials, suggests that it may also be *capable* of providing a price discovery mechanism for characteristics related to “sustainable production practices” as well. Although the exact mechanisms for enabling such an outcome would depend upon a variety of circumstances, such a system would depend upon the fulfillment of the following pre-requisites:

- A clear and internationally recognized definition of sustainable practices must be identified
- A credible and dependable system for verifying compliance with identified sustainable practices
- Industry must show a willingness to, or demonstrate an actual practice of, paying some level of differential for coffees being produced under such terms.

²⁴It is important to distinguish between differentials between spot and future market prices and differentials *on the futures market itself* between different grades of coffee. The former entails a degree of speculation and variability that the latter does not. For the purposes of our analysis we only consider differentials based on coffee grade on the futures market.

Provided that such pre-requisites actually are met, it is conceivable that the futures market, based on the allotment of “sustainability certificates” could provide a tool for creating transparency and stability in the provision of premiums (and thus market incentives) towards the adoption of sustainable production practices. While futures contracts *could* conceivably play such a role, there are considerable limitations to the full functioning of such a system.

In the absence of an internationally agreed upon definition or ranking of sustainable production and trading practices and the instruments for identifying them on the market prevents the ability to create a market around such practices. To date there have been many attempts to establish definitions of sustainability for the coffee sector with the result being the establishment of several different, and often competing definitions. Although there are growing signs of a potential for convergence of standards,²⁵ or at least the establishment of common baselines for the sector,²⁶ the actual implementation of standards in light of regional differences is far from self evident.

Monitoring compliance with standards is also a costly affair. In a context where one of the primary objectives is to generate greater resources for producers up the chain, there is considerable reluctance to invest the requisite resources in the administration of comprehensive verification systems. Although the development of the new ECOPS system for tracing coffee (and other commodities) traded through NYBOT²⁷ promises to significantly reduce monitoring costs associated traceability through the introduction of electronic records, the costs associated with monitoring actual practices at the farm level can be expected to be significant. The exploration of shared auditing and verification procedures such as those being explored by the International Social and Environmental Accreditation and Labelling Alliance (ISEAL) could provide an important tool in reducing such costs at the farm level through increased economies of scale in auditing process.²⁸

Industry or consumer willingness to pay more for sustainable coffees is necessary to ensure the eventual functioning of the futures market since such markets depend fundamentally on high levels of liquidity for their operation. Spotty or ad hoc use of sustainability as a purchasing basis prohibits the effective functioning of a futures market incorporating sustainability concepts. There are essentially two ways in which differentials for sustainability might be formally recognized through the futures market: 1. through the establishment of a parallel market based on a novel “Sustainability Contract” (“S-Contract”) or 2. through the allocation of a differential for coffee traded according to standard form contracts but accompanied by a “sustainability certificate.”

A parallel to the first option is provided by recent explorations towards the establishment of a “Quality Contract” or “Q Contract” by the Coffee Quality Institute (Margaret Swallow, Coffee Quality Institute, personal communication March 2004). The advantage of this approach resides in the ability it gives the architects of the system to redesign the contract from the bottom up in a comprehensive manner as well as the independence which such a market, once established, can have from the conventional futures market (e.g., has the potential to function independently from the “C” market. The disadvantage resides in the fact that an entirely new market must be created, and corresponding liquidity generated, in order to enable such a system to work. Moreover, the independence from the C market also reduces the “stability” of any differential between an S-Contract market and the conventional market.

²⁵The International Social and Environmental Accreditation and Labelling Alliance (ISEAL) has provided a forum for discussing issues of possible convergence between three different coffee standards systems (Rainforest Alliance Certified; FLO; and IFOAM).

²⁶ The Common Code for the Coffee Community has set itself a mandate to have a draft baseline code for the mainstream coffee sector by September 2004.

²⁷ Although not specifically intended for tracing production and trading practices, it is expected that the system could deal with such variables quite readily. (Paul Fisher, Personal Communication, March 2004).

²⁸ ISEAL through the Social Accountability in Sustainable Agriculture project, has undertaken a process of identifying areas where the auditing and monitoring systems of different standards initiatives might be harmonized and combined. With this prospect efficiencies and economies of scale to farm level auditing as such might be possible.

By contrast, the advantage of using existing conventional contracts accompanied by a sustainability certificate (the second approach) is its reliance on an existing market system and infrastructure which provides both a degree of liquidity insurance as well as predictability relative to conventional market prices (since differentials for quality on the futures market are determined outright). Given the minor levels of trade in sustainable coffees at present, the importance of stability and the infra-structural costs associated with establishing an entirely new market, the latter option would appear to be a far more plausible route over the short to medium term.

Even under the more simplified certificate based differential system, significant challenges to meeting the third pre-requisite exist. On the one hand, many industry players maintain that higher prices cannot be offered for “sustainable” coffees in the absence of a consumer willingness to make the distinction between such coffees in their own purchases. However, despite a plethora of surveys suggesting such a willingness on the part of consumers, actual consumer practice suggests quite the contrary.²⁹ Although consumers *may* be willing to pay some level of premium for socially and environmentally produced coffee, in the face of other “unsustainable” brands, there is no reason to expect consumer “willingness to pay” to *equal* the actual social and environmental costs of production, and considerable economic grounds for expecting the contrary. The creation of a consumer driven differential for sustainable coffee is subject to very real public goods problems which create disincentives to the payment of premiums for such practices on a unilateral basis.³⁰ On the other hand, coffee consumption as a whole is widely recognized as being substantially price inelastic, suggesting that consumers may be willing to assume higher prices for coffee (to cover the costs of sustainable production) without significantly reducing their consumption.³¹ The only solution to such challenges may well be group action by large industry players which effectively eliminates the “choice” for unsustainable coffee or the creation of a policy environment which corrects for the incentives towards less expensive “unsustainable” forms of production.³²

It should also be noted that although industry players may have significant sway in the behaviour of futures markets, there is little evidence that any single company has the ability to control prices on such markets. This suggests that the futures market may actually play a neutralizing role with respect to the economic market power of individual firms at the level of price formation. Of course, companies are nevertheless free to, and indeed do, use their market power in the determination of physical contracts for actual delivery. The fact that such prices tend to be referenced on the futures market, suggests a retention of some level of competition on the supply side (e.g., although there may be evidence of monopolistic pricing, there is little indication of monopsonistic pricing at the macro-level).

Besides their important role as the home of price discovery for international coffee trade, the risk management role of future markets also offers potential opportunities for improving the economic sustainability of producers. However, a lack of specialized training, information infrastructure and, most importantly, of capital, makes it difficult for farmers to take advantage of this “service” offered by futures markets. At present, volume restrictions still restrict the risk management features of futures market transactions to large producers or producer organizations. On the other hand, the benefits of hedging

²⁹ See, Krier (2001) for example, at p. 14 accessed at <http://www.eftadvocacy.org> for an indication of the discrepancy between “willingness to pay” on surveys and actual market shares for fair trade coffee in the European context.

³⁰ Acting as rational actors faced with products of differing price ranges and no guarantees that other consumers are paying higher prices for “sustainable coffees,” any given consumer can be expected to opt for an individual welfare maximizing option, which is to say, select the least expensive product.

³¹ Maizels has calculated long run demand elasticities for coffee consumption in Europe and North America to be between .1 and .2. See Maizels et al, 1988 cited in ICO, “Environmental Issues Relating to the Coffee Chain Within the Context of Trade Liberalization, Through a Life Cycle Approach” (London, ICO; 2001).

³² Group action among competitors, specifically on issues related to price formation are highly susceptible to violation of competition law in both Europe and the United States. Approval or adoption of coordinated activity by the ICO may be necessary to enable such group activity within the context of existing competition laws. See Jason Potts, “Multi-stakeholder Collaboration for a Sustainable Coffee Sector: Meeting the Challenge of U.S. Anti-trust Law” (IISD; 2004).

activities by buyers could conceivably be “passed on” to producers through the formulation of long term contracts (made possible by a buyer’s own hedging operations). The International Task Force on Commodity Risk Management (ITF) has begun exploring ways for enabling producers to more effectively take advantage of existing futures markets through a number of pilot projects.³³ Various administrative features associated with the contracting system on the futures market may or may not promote the ability of producers in being able to take advantage of such markets. The recent development of the Mini-C is one example of how an administrative adjustment can positively alter the accessibility of benefits for producers and producer organizations.³⁴

With respect to conventional physical contracts, long term contracts and PTBF contracts (“sellers call”), offer potential tools for integrating greater revenue stability and predictability for producers. Long term contracts with outright pricing offer one of the most direct instruments for providing producers with predictable and stable revenues. Many companies apply long term contracts but only under very specific conditions largely due to the inherent risk associated with long term commitments in volatile markets and poor enforcement mechanisms. Industry players on the consumption side of the market frequently cite the difficulty in enforcing fulfillment of long term contracts with producers and producer organizations when market prices rise above those specified in the contract.

The promise of long term contracts primarily lies in the fact that such contracts introduce a degree of stability within an otherwise unpredictable market. Obviously the longer the length of a given contractual arrangement the greater its stabilizing effect. However, as contract length is increased, so too is the risk of default from either side. When current market transactions diverge significantly from contractual terms, either party will have strong incentives to default. Combining this with a very loose enforcement structure at the local level in many coffee producing countries, means that such contracts suffer high risk exposure. Indeed, the possibility of default may represent the most significant cost and thus barrier to the adoption of such contracts since price change issues can presumably be protected through hedging operations by purchasers. This explains the limited application of such tools in well established relationships between supply chain partners at present. It is conceivable, however, that given the appropriate incentives and infrastructural support (perhaps in the form of guarantee funds), the long term contracts could be rendered a viable tool for enhancing the stability of returns for producers.

As noted above, the PTBF sellers call contract allows the seller (and thus potentially producer organizations) to decide at which market price level, a contract will be fixed. Although this “option” doesn’t fully compensate for the risk features of the market, it does provide producers with more flexibility than may otherwise be available by accepting prices as coffee is delivered.

A particularly appealing feature of this mechanism is the fact that it doesn’t, in principle, necessitate any additional cost burden on buyers already involved in hedging practices since it merely entails a shifting of hedging activity to respond to seller decisions on time and date of setting the price. One of the limitations facing the use of such contracts at the producer level is that, as a matter of course, roasters are less inclined to negotiate such contracts, thus limiting their applicability at present.³⁵ Although some roasters working proactively in the area of sustainable development, such as Green Mountain Coffee Roasters,³⁶ have in fact experimented with using the PTBF sellers option contract as a tool for improving producer autonomy in the pricing function on select contracts, the feasibility of wider adoption of such contracting practices, particularly at the roaster and trader levels is an area worthy of further investigation.

³³ For updates on ITF activities, visit the Task Force Web site at <http://www.itf-commrisk.org/index.htm>.

³⁴ The “mini-C” contract, introduced in 2003 specifically to enable smaller players to participate in trades, has had only limited success to date, due to an overall lack of liquidity on the Mini C market. (Personal Communication with Ted Davis, NYBOT, March 2004).

³⁵ ITC, *Coffee: An Exporter’s Guide* (Geneva: ITC, 2003) at 199.

³⁶ Conversation with Jon Weitenstein, Green Mountain Coffee Roasters, March 26, 2004.

Such contracts do not, of course, provide the same stability as outright pricing itself, and thus may be less preferable than outright contracts depending on the expected price levels. The fact that PTBF contracts still involve considerable risk exposure means they would probably need to be mixed with outright price contracts in order to provide noticeable benefits. At the very least, PTBF seller's call contracts offer more flexibility than simply accepting the market price at the time of delivery of contract formation.

Finally, it should be noted that even without any duration over time or flexibility for producers to fix price, the existence of contracts *as such*, requiring delivery at a specific point in time, can provide an important source for leveraging financing from other sources as a form of collateral. To the extent that financing is considered a major obstacle to the development of more sustainable systems of production in the coffee sector, this may represent an important tool for consideration under the context of sustainable contracts. In order to extend this “benefit” of contracts, it may be worthwhile considering how contract systems can be used to establish rights and obligations between producer organizations and exporters, or between producer organizations and roaster/buyers directly—and how such contracts can be used to generate collateral financing.

5.2 Alternative Contracts

Based on our overview of the sustainability challenges facing the coffee sector, the alternative contract schemes surveyed offer the most direct instruments for linking the three pillars of sustainable development within the contractual mechanism. Each of the three alternative models makes explicit reference to social, economic and environmental practices within the context of a whole system approach. This feature makes such contract schemes particularly compatible with the vision of sustainable development outlined by the Agenda 21 process.

Although each of the three alternative systems surveyed above offers some level of economic benefit to producers in return for the adoption of sustainable production practices, the degree and nature of such benefit varies considerably (see Table 6). Arguably, the most promising system in terms of explicit benefits delivered to individual producers and producer organizations is the FLO system. With obligatory premiums and a minimum floor price which more or less guarantees production costs are covered regardless of market conditions, producers would appear to have access to the economic security requisite for long term sustainable development. The FLO pricing system, however, is faced with many challenges at a more practical level including:

- No recognition of price distinctions for difference in quality
- No recognition of distinctions in the cost of production between different regions
- Persistently low market shares
- A potential for exacerbating oversupply and pricing pressures throughout the coffee sector

In fact the four practical “challenges” which face the fair trade system are linked to the fact that the fair trade pricing attempts to step outside of market forces in the determination of a “sustainable price.” Although it would appear that the dysfunctional nature of the coffee market under the *status quo* demands a departure from strict market outcomes, the fair trade system is clearly exposed to severe market pressures by virtue of the degree and depth by which it does so. The market has, in effect, framed fair trade sales within its own boundaries by primarily generating fair trade sales only to high or “specialty” quality coffee markets. As a result, the robusta and mainstream markets for fair trade coffee remain disproportionately underdeveloped. Again, one of the principal causes for this can be traced to the public good problems which also face the development of meaningful premiums for sustainable coffees on futures markets.

Even if fair trade were not faced with the market pressures at present, the adoption of the floor price model without some form of internalized limits on individual production (and access to the fair trade system) would almost certainly provoke oversupply thereby aggravating the levels of prices outside of the fair trade system.³⁷

Fair trade is also unique for its insistence on the provision of advance payment on coffee purchases and the establishment of long-term relations with producers. The fact that neither of these instruments has been adopted throughout the fair trade system itself raises questions as to their adoptability on a widespread basis for the sector as a whole—although there may be opportunities for implementing such practices at the global level through the development of an appropriate infra-structure, supply chain operations and through economies of scale.³⁸ In the case of advances on the value of contracts to cover production costs through to harvest, the distribution and cost of assuming risk for advance payment will be critical to determining overall viability. In order to make such systems operational, institutional guarantee mechanisms and/or improved access to hedging instruments may be necessary, through legislation or asset-based guarantee funds.³⁹

The Starbucks preferential supplier program addresses some of the challenges facing the fair trade system by replacing a fixed floor price mechanism with a combination of “outright,” long term contracts and “sustainability premiums” based on the degree of compliance with specified sustainable practices. The use of outright long-term contracts provides a modicum of stability and predictability for producers, without allowing producers to become complacent on issues of quality or other market trends. Meanwhile, the scaled sustainability premium, allows producers to benefit from the premium without being obliged to adopt an entire set of criteria all at once—a feature which clearly improves the accessibility of the system for poorer producers. The conferral of preferred supplier status adds yet another layer of economic stability for producers who have demonstrated high levels of compliance with the Starbucks sustainability criteria by providing them with partial guarantees to market access. Moreover, to the extent that the Starbucks preferred supplier program consolidates long-term supply relations, the possibility for offering advances on the value of future sales may be more easily assured—although no such criteria is included in the Starbucks system as applied at present. Overall, the near integration that occurs in the process of adopting preferred suppliers may also more readily allow the internalization of the costs of sustainable production requirements through price differentials and brand valuation in the market.

Although the Starbucks model appears to address some critical challenges facing the fair trade system with respect to underlying market forces, this model too is faced with challenges of its own. On the one hand, one cannot overlook the fact that Starbucks serves a particularly high value segment of the coffee market, allowing it the luxury to pay higher prices to producers and absorb other costs associated with the promotion of sustainable practices more or less unilaterally. The situation of Starbucks is thus quite distinct from that facing traditional mainstream coffee retailers, traders and roasters. On the other hand, although it would appear that the Starbucks pricing of US\$1.20 lb signifies a price which largely covers the full costs of sustainable production, it is neither clear how such a figure is arrived at, nor that it could/would be provided

³⁷ It should be noted that even in the ICA system, besides the presence of a price band, there were two regulatory mechanisms: quotas and buffer stocks. The first limited the growth in supply and the second reduced price peaks by liberating stocks.

³⁸ For example, current mainstream trading structures, in emphasizing the homogeneity of coffee “as commodity,” reduce the need for direct knowledge on coffee origins or strong relations with specific suppliers on the ground. Continued differentiation in the coffee market on the basis of origin and/or a large scale shift in the nature of relations between buyers and sellers, could conceivably reduce the costs associated with long terms relationships with producers.

³⁹ In Brazil, for example, the Bank of Brazil provides a guarantee on availability of Arabica coffees anticipated from producers or through auction, using the *Cédula do Produto Rural* (CPR), which may also be based on dollar values for exports, charging a 0.6 per cent fee on market value for the guarantee. The Belgian parliament has also approved the formation of a guarantee fund for providers of advance payments under the fair trade system. See Jason Potts, *Fair Trade Policy in Consuming Countries, Developing Strategies for Greater Market Penetration* (Equiterre, 2003).

over the long term under conditions of tightening competition.⁴⁰ That is, as a discretionary benefit, it is not clear how the outright pricing is, or would be, linked to the actual costs of sustainable production over the long term. Finally, the value of “preferred supplier status” only exists when there is less coffee available from such suppliers, than is actually demanded by Starbucks. Within a saturated market, preferred suppliers have no guarantee of a market for their products.

The Utz Kapeh model, on the other hand, offers the benefits and disadvantages associated with a still more flexible model for sustainability in the sector. Although some of the specific social and environmental requirements are clearer in the Utz Kapeh system than those identified under the fair trade system, the economic rewards associated with the adoption of such practices are far less transparent than those provided under either the Starbucks pilot program or the fair trade system. The advantage of having recommended, rather than obligatory, premiums associated with compliance relates to the flexibility it allows for different supply chains to establish their own pricing mechanisms based on their respective costing structures and business practices. The disadvantage, of course, is that such flexibility offers little in the way of substance to rectify the market’s tendency to undervalue the social and environmental goods associated with sustainable production. At best, it is unclear how effective the process of moral suasion adopted by Utz Kapeh is in promoting actual practice. Perhaps even more problematic in the case of the Utz Kapeh model, is the absence of any effort to actually “identify” the costs of sustainable production. Although all of the alternative systems fall short on this particular aspect, the Utz Kapeh model, offering the lowest and most indeterminate pricing premiums for “sustainable coffee” is clearly the most vulnerable to under-pricing sustainable practices. The fact that producers must assume the costs of certification can only be expected to exacerbate this threat.

⁴⁰ Both with regard to the FLO floor price and the Starbucks differential pricing policy, there is a paucity of information to determine if these systems effectively cover production costs. The determination of the cost of producing sustainable coffee represents an important challenge and research issue, so that parameters and indicators can be devised to enable ongoing and simplified monitoring of these costs.

Table 6: Comparative analysis of standard and alternative coffee contracts based on sustainability and market-driven criteria.

CHARACTERISTICS OF COFFEE CONTRACTS	STANDARD	ALTERNATIVE		
		FAIR TRADE	STARBUCKS	UTZ KAPEH
DRIVERS	Market price and product quality driven	Socially driven; ILO principles; Process-oriented	Environmentally and quality driven	Code of Conduct Eurep-GAP SA 8000
SUSTAINABILITY DIMENSIONS				
ECONOMIC CRITERIA	Quality and origin (Must)	<i>Obligatory (Must)</i>	<i>Obligatory (Must)</i>	<i>Recommended (Should)</i>
Long-term contracts	No	Yes	Yes	Yes
Preferred suppliers	No	Yes	Yes	Yes
Differential pricing	Product and origin related	Floor price	Point system for price differential	Sustainability differential
Community premium	No	Yes	No	No
Advance on sales	No	Yes	No	No
Coverage of certification costs	No	Yes	No	No
Traceability and transparency	Low	High	High	High
Compatibility with mainstream trade channels	High	Low	Moderate	Moderate
Impacts on macroeconomic conditions	Moderate	Low	Low	Low
Market penetration	High	Low (Niche-oriented)	Medium (Brand-specific)	Low/Medium
Mainstream market potential	High (this is the mainstream...)	Low	Medium	High
SOCIAL CRITERIA	<i>Not Included (Free)</i>	<i>Obligatory (Must)</i>	<i>Recommended (Should)</i>	<i>Obligatory (Must)</i>
Salaries and benefits	No	Yes	Yes	Yes
Labour conditions	No	Yes	Yes	Yes
Living conditions	No	Yes	Yes	Yes
Gender equity; respect minority rights	No	Yes	Not specified	Not specified
Restriction on child labour use	No	Yes	Not specified	Yes
Democracy community self-management	No	Yes	Not specified	Yes
ENVIRONMENTAL CRITERIA	<i>Not Included (Free)</i>	<i>Recommended (Should)</i>	<i>Obligatory (Must)</i>	<i>Obligatory (Must)</i>
Water management	No	Yes	Yes	Yes
Soil conservation	No	Yes	Yes	Yes
Forests and biodiversity	No	Yes	Yes	Yes
Pest control	No	Yes	Yes	Yes
Energy use	No	Yes	Yes	Yes
Waste management	No	Yes	Yes	Yes

6.0 Conclusions

Over the past decade the markets for sustainable coffees have grown considerably, giving rise to an awareness of sustainability issues throughout the coffee industry. With the rise of specific markets for “sustainable” products, some consumers have demonstrated a willingness to pay higher prices for coffees that purport to meet sustainable characteristics. The demonstration effect obtained in marketing these coffees can stimulate changes in the pattern of demand, potentially leading to an expansion of the breadth and scope of consumer willingness to pay premiums for such practices. However, the success of sustainable coffees to date as a market concept has essentially been limited to specialty and other high value differentiated markets. A crucial challenge facing the integration of sustainability concepts within mainstream trade channels is to determine how sustainable practices can spread to mainstream channels in the context of product homogeneity typified by such markets.

On the basis of our analysis above, it is clear that the effective implementation of a contracts scheme that ensures some level of benefits to producers in return for the adoption of sustainable production practices also entails significant costs. One of the major questions in assessing the viability of any particular system of benefits relates to the distribution of costs and developing effective mechanisms for internalizing such costs without relegating them to niche markets alone. While we cannot pretend to provide an answer as to the appropriate distribution of such costs between public authorities, consumers, retailers, roasters and traders, what is clear, is that such costs *must* be borne primarily by players on the consumption side of the supply chain. At the moment, however, the majority of costs associated with adopting sustainable production systems are still assumed by producers, with only modest price premiums as compensation. There is also considerable evidence that consumers alone will not lead the market to a widespread system of differentials for sustainable coffee. These two “facts” would appear to suggest a role for the systematization or institutionalization of rewards for sustainable production practices at the sector-wide level. Indeed, short of sector wide agreement, or corresponding policy instruments, competitive pressures are likely to drive premiums (and related economic benefits) out of the market or reduce them to levels which fail to cover actual costs (associated with sustainable production).

There are two distinct ways of envisioning change towards the systematization of sustainability criteria in contracts across the sector. On the one hand, it may be possible to identify broad-based sustainability guidelines which are sufficiently generic that they are, in fact, applicable across the entire coffee sector at relatively low cost. Such a system would be most conducive to taking advantage of existing standard contracts and corresponding futures markets. Moreover, it is conceivable that a premium or differential could be built into such a system drawing from the existing regime of conventional contracts and trading exchanges. Sector-wide action on such standards could lead to some level of differentiation (and thus higher prices) for products identified as sustainable under such a system. On the other hand, it may be desirable to emphasize differentiation in quality across the mainstream sector (in the way which the specialty market does), using sustainability concepts as a point of differentiation. To the extent that a differentiated market can draw higher revenues from sales, it also has a greater capacity to distribute resources to producers (e.g., Starbucks model). Under such a system, outright contracting and more substantial premiums for producers are clearly more feasible. The existence of differentiated markets may also be more conducive to direct and long-term relations which may bring additional benefits to producers.

The main challenges facing the first vision are (i) the adaptation of concepts which are traditionally perceived as “specialty” differentiators, to the structures and market conditions present within a homogenous commodity market and (ii) the ability to derive significant benefits for producers out of such a market. The main challenge facing the second vision is the overall interest of consumers in adopting a more costly “differentiated” market. To the extent that the coffee market is currently divided between the two approaches, it will be critical to ensure that both means are implemented in ways which are mutually supportive. Although both approaches are worthy of promotion, the first approach relies on existing infrastructure and market structure most directly and thus would likely pose far lower transaction costs.

There are also numerous general sustainability issues which contracts, as such, cannot be expected to resolve in any significant manner. These include:

1. Improving the sustainability of contracts cannot resolve the current crisis of oversupply confronted by the sector.

- a. *Contracts in themselves cannot facilitate market expansion* although current and potential demand may be expanded by creation of promotional programs stressing consumption of sustainable coffees or improving the image of the coffee sector;
- b. *Higher producer prices should not be anticipated without a corresponding valorization of the final product* – although it is likely that some resources may be available from monopoly rents accrued along the supply chain, long-term price improvement depends in large measure on market valuation of sustainable practices by consumers, industry and/or policy;

2. Contracts alone cannot assure the systemic or structural changes necessary to shift regional or national living conditions towards greater sustainability;

Sustainable contracting, despite potential improvement in practices along supply chains and incomes does not necessarily guarantee that producers are concomitantly transformed in terms of their overall access to technology, infrastructure, education, credit, diversified and multifunctional activities needed to attain a sustainable rural sector. Although linking contractual obligations to substantive social and environmental performance criteria can help attain this outcome, a broader supportive policy framework is also necessary.

3. Creating standardized contractual elements and instruments presupposes a search for means to reduce transactions costs, but the integration of sustainability criteria is likely to increase transaction costs to some degree;

- a. *Safeguards are needed against increased transaction costs*, which can occur both *ex-ante* (information gathering, negotiations and closing the contract provisions) and *ex-post* (opportunistic behaviour against honouring commitments).
- b. *The degree of product specificity militates against reduction in transactions costs*. Standard coffee contracts and Incoterms are examples of contractual structures that respond well to these objectives.
- c. *Excessively complex instruments and those that would demand complex and expensive infrastructure for their implementation should be avoided*, to ensure the greatest possible participation by producers and industry.

Despite the significant challenges facing the use of contracts and related instruments as tools for delivering benefits to producers adopting sustainable practices, it is clear that contracts can deliver a wide range of economic benefits, not only through their price determinations but also through a variety of other relations and commitments which are often settled within contracts and which address critical sustainability issues facing the most vulnerable producers along the chain. Although there are significant challenges in integrating any of the specific contractual criteria associated with “alternative” contract schemes, or even a recognized differential system within mainstream contracting schemes, there may be particular hope in the use of non-price related tools such as long-term relationships and preferred supplier relationships since the costs associated with such benefits can be reduced over time through broad-based infra-structural change (e.g., the costs associated with such instruments are primarily fixed in nature). Similarly, the costs associated with awarding differentials for recognized sustainable practices may also be reduced through the adoption and implementation of standards systems which are widely recognized by players throughout the industry. In short, economies of scale, structural development and standardization are likely to be key factors in bringing sustainable contracts to the coffee sector on a widespread basis.

Based on our survey above, some of the more promising “contracting tools” and complementary instruments for consideration in further investigation in this area include:

- Long-term agreements between producers and buyers so as to permit the planning of activities at least over a complete harvest cycle;
- The use of “price to be fixed” contracts, sellers call in physical contracts with producers and producer organizations
- Preferential supplier status in return for commitments to sustainable production practices
- Adaptations to futures markets (and the respective contracts) enabling enhanced producer access to risk management tools within such markets
- Adequate institutional or market-based guarantees to ensure actors honour their contractual commitments through market volatility;
- Increased transparency of the price formation process along the supply chain through enhanced access to information.
- Pricing differentials in recognition of the socio-environmental benefits associated with sustainable production practices based on either:
 - The expansion of differentiated, high value markets which integrate sustainability concepts
 - Explicit recognition of sustainable practices within the quality grading systems used for futures markets (via a certificates program);

In order to fully assess the potential and overall viability of specific contractual elements as tools for improving the financial position of producers adopting sustainable practices further research is clearly necessary. Some specific questions which such research will need to answer include:

- What are the specific impacts of different contractual instruments/elements on producer sustainability?
- What are the fixed costs associated with switching to a system based on specific criteria on a widespread basis?
- What are the variable costs associated with switching to a system based on specific criteria on a widespread basis?
- How do specific circumstances associated with regions and supply chains impact the above questions?
- How can the additional costs associated with improved financial security for producers be spread across all players on the consumption side of the supply chain in such a manner as to avoid any specific groups, players or consumers from having to bear such costs unilaterally?

Ultimately, sustainability needs to be understood as a dynamic process requiring continual improvement. On the one hand, this implies gradual adaptation towards identified sustainable practices in response to the socio-economic, environmental, cultural and policy endowments of each producing country—the ideal being to gauge progress rather than to come up with a package of rigid standards. On the other hand, this implies a continual elevating of the bar and the avoidance of complacency.

Moreover, sustainability in coffee production cannot depend solely upon supply chain standards and supply chain decision-making. Producing and consuming countries alike should strive to create compatible infrastructures of technical assistance, research and production support, as well as other income related fiscal

policies for creating an environment favourable to sustainable production practices. Meanwhile, diversified development strategies are critical elements of strategies for reducing the resource depletion and financial insecurity associated with high levels of dependency on monocrop agricultural practices.

Given the crisis that continues to affect coffee producing countries, and considering that most income generated in the coffee production chain migrates to those sectors at the end of the chain in consuming countries, policies to support sustainable coffee production should begin in consuming countries, whether through individual consumers, states, corporate leadership or multilateral assistance toward improving the terms of trade. Ultimately, we can expect it will take proactive efforts from all players along the supply chain in order to avoid the perverse incentives generated by persistent market failure. The fact that costs *must* be shared among agents along the supply chain in order to render them financially viable in a competitive market setting, provides a strong argument for public policy support toward the overall promotion and implementation of contracting practices which favour sustainable trade and production.

Table 7: Applicability of contractual mechanisms to address coffee sustainability.

FACTORS THAT REDUCE SUSTAINABILITY		POSSIBLE SOLUTIONS	CONTRACTS (Applicability)
UNFAVOURABLE TERMS OF TRADE	Trend toward Decline in Prices	Long-term contracts Preferential sourcing Supply control policies	Yes Yes No
	Prejudicial Price/Cost Relationship	Differential prices for sustainable production	Yes
	Volatility in Prices	Long-term contracts	Yes
	Low Value-Added	Systems of nomenclature of origin Specialty coffees Organic coffees	Yes Yes Yes
	Market Power	Transparency along the production chain	Yes
UNCERTAINTY	In production	Agricultural insurance	Yes
	In trade	Long-term contracts	Yes
	In supply	Penalties in contract for non-supply or delay Threat of severance of future commercial relations	Yes Yes
LACK OF CAPITAL	Crop conversion	Preferential and differential credit for producers in process of conversion (multilateral sources)	No
	Expenses to harvest	Pre-financing on the part of the importer	Yes
POOR ACCESS TO INFORMATION	On the market	Informational bulletin / Databanks Marketing training	Partially No
	On prices	Informational bulletin / Databanks	Partially
DEFICIENT INFRA-STRUCTURE	Lack of resources to support production, infrastructure and marketing	Price premium for community development	Yes
		Differentiated credit lines of collective infrastructure (multilateral sources)	No
INEQUITABLE SOCIAL RELATIONS	Inadequate salaries and working conditions; sexual discrimination; child labour	Internalization of social costs in pricing	Yes
		Differentiated income and financing policies	No
ENVIRONMENTAL IMPACTS	Unsustainable production processes	Internalization of environmental costs in pricing	Yes
		Differentiated financing policies for environmentally appropriate practices	No

Appendix I: Possible Elements for a Sustainable Coffee Contracts Scheme

This section draws from a survey process launched across members of the coffee supply chain in an effort to determine what the initial elements of a sustainable contract scheme might include. Although our analysis above concludes that the establishment of an outright system of “sustainable contracts” is not the most plausible approach for bringing sustainable practices to the mainstream sector over the short term, the main content of the overview is equally applicable to a certificate based system.

Our study has underlined the importance of economic viability as a key variable to assuring broader socio-environmental sustainability in this enterprise. Economically sustainable coffee production depends on producer price levels being commensurate to the costs of production, and also being sufficient to permit growers to adopt social and environmentally sustainable production systems over time. It also requires that producers be assured of some level of security, and that they can obtain market access and resources for long-term financing prior to harvest. Arrangements of this nature, directed toward sustainable coffee, can be characterized as ***economically viable production systems***. This viability arises from commercial relations that internalize their social and environmental benefits, and responds to the financial needs of the production system. In regard to contracts, the principal indicators include:

- a) *long duration* – establishment of long-term contracts for international coffee marketing, initially focused on a 3-year horizon, but progressively expanding to five years, to reflect coffee maturation periods;
- b) *priority in supply* – preference in commercial relations to producers of sustainable coffee that are organized in associations;
- c) *compatible pricing* – prices that cover production costs, internalize social and environmental costs/benefits and provide rural producers and workers with a decent standard of living;
- d) *production financing* – financing or prepayment systems in contractual terms, allowing the producer to incur expenses prior to harvest;
- e) *transparency and traceability* – progressive achievement of transparency in commercial transactions, and establishment of chain-of-custody approaches to trace products through the value chain.

With regard to the social arena, criteria that could be included deal with ***socially just and equitable production relations*** – obeying local laws, but in the medium and long-term adopting universal principles and ethical standards of conduct. As indicated above, improvement in social equity is likely to be more readily attained when economic conditions of producers are improved. However, increased price alone cannot assure better distribution of the benefits to all stakeholders in a given supply chain (e.g., women and children). More direct targeting may be required to overcome existing inequities and inappropriate labour practices. Indicators that reflect a basic point of departure for these relations and that can become the object of contractual clauses include:

- a) *dignity in social relations of production*, reflected in payment of salaries in accordance with the laws of the source country;
- b) *satisfactory labour conditions and safe working environment*;
- c) *equity in gender relations*, both in regard to salaries and to opportunities for contributing to decision-making;
- d) *elimination of child labour practices* or of systems of voluntary participation that do not harm the freedom of children to develop, their leisure and education;
- e) *democracy, independence and non-discrimination*, in social relations, in associative enterprises of producers and rural workers.

In the environmental arena, coffee production should demonstrate efficient and sustainable use of natural resources and employ technologies that reduce environmental and health impacts, as well as conserving natural ecosystems and biodiversity. Such systems can be characterized as ***environmentally appropriate processes***, which, at the contract level, can be specified according to the following indicators:

- a) *soil management*: protection, conservation and preventing erosion;
- b) *water management*: avoiding pollution arising from production processes, as well as from coffee processing;
- c) *conservation of natural resources*: forests, soil cover and biodiversity in production areas and their environs;
- d) *integrated pest management*: avoiding use of prohibited pesticides and using only those that are indispensable, adopting organic production patterns as a target;
- e) *efficient energy use*, promoting utilization of local and regional materials;
- f) *recycling and treatment of residuals* arising from production and processing of coffee.

The challenge in this arena is that while some environmentally appropriate measures may be feasible within the framework of current production cost structures, improved management of natural resources and reduced use of agrochemicals will, at least at the outset, typically require an increase in financial outlays.

These criteria, grounded in the social, environmental and economic dimensions of sustainability, form a conceptual basis for the analysis of some of the currently applied contract systems adopted in international coffee trade. To enhance production sustainability through contracts, these three dimensions need to be considered in a balanced and integrated framework. However, the economic dimension, as the financial basis for elevating socio-environmental sustainability, bears an evident primacy—particularly with respect to contractual relations. Improved prices, net revenues, reduced production costs, and uncertainties, are essential to enabling enhanced access to sustainable development overall. Only from this point of departure can producers be charged with adopting improvements that will enhance the environmental and social dimensions. (i.e., economic sustainability is thus a prerequisite for promoting broad based sustainability) Our perspective, therefore, is that contracts must first improve the terms of trade and features that enhance the ability to plan ahead, before we can expect other dimensions to be addressed.

On the basis of the above discussion, Table 8 summarizes the principal criteria that could serve as a basis for analysis of current contracts and for developing a sustainable contracts scheme for coffee, in the context of negotiation among all stakeholders in the productive chain.

Considering that negotiations along the productive chain of coffee occurs between agents with extreme asymmetries in information and market power, we will emphasize the need for greater specificity of assets (product, processes and impacts), reduction in uncertainties (long-term contracts, building less impersonal relationships) and a greater frequency of transactions (as in preferential raw material supply schemes).

Commitments are needed to address those factors that contribute to current unsustainability in the coffee system. On the supply side, changes are needed to promote continuous adaptation to sustainable approaches, from a social and environmental perspective. Sustainability must be perceived as a process and not an end, and must be adapted to the distinct conditions in each producer country, with progressive observance of universally recognized codes of conduct such as the ILO norms, the UN Human Rights Charter and the Convention on Biological Diversity.

It is also critical to keep in mind that the constraints facing producers should not be unreal or excessive, becoming an additional burden on the productive sector and acting as a barrier to entry in trade relationships, which would deepen the disadvantages already faced by coffee producing nations. It may be preferable to begin with minimum standards that can be applied to the majority of producers and then implement a process of continual improvement.

Table 8: Examples of possible themes for improving sustainability in the coffee sector through contractual terms

Criteria	Specification and objectives
ECONOMIC	Reduction of uncertainty and variability in prices; coverage of social and environmental benefits inherent to the production process; greater access to markets and to information; greater equity, transparency and collaboration along the productive chain; pre-harvest financing
Long-term contracts	Contracts valid for at least three and preferably five years.
Preferred suppliers	Priority for acquisition from associative entities engaged in production of sustainable coffees.
Differential pricing	Payment of a premium over conventional market prices, reflected in a percentage of sales value, as a means of remunerating social and environmental benefits in production of sustainable coffees.
Community premium	Payment of a premium over conventional market prices, reflected in a percentage of sales value, as a means of supporting strategies for capacity-building and community development.
Advance on sales	Advance payment of a percentage of the contracted sales value with the objective of financing production up to the time of export.
Coverage of certification costs	Payment of third party certification costs, when required as a condition of sale.
Traceability and transparency	Visibility, on the part of producers, consumers and society in general, of the structure of prices, costs, marketing margins and of production, processing and industrialization processes from field to consumer.
Product quality	Adoption of ICO Resolution 407 to improve coffee quality and pricing.
SOCIAL	Improvement in quality of life of producers, workers and their communities; legally based labour relations; democracy, equity and participation, respecting gender differences and minorities; restriction in child labour; development and autonomy of associative and community organizations.
Salaries and benefits	Payment of salaries and benefits to workers in accordance with national law.
Labour conditions	Safe and healthy work environments; use of protective equipment in activities that impose risk on workers' health.
Living conditions	Rural producers and workers living conditions are adequate.
Gender equity and respect for minority rights	Equitable treatment to women and minorities, enabling participation and non-discriminatory employment access and pay.
Restriction on child and forced labour	Restriction to child labour as a criterion of social progress.
Democracy, freedom of association and community self-management	Right to participate in decision-making, self-management of associative organizations and autonomy of community enterprises.
ENVIRONMENTAL	Adoption of production systems designed to conserve and restore environmental quality and biodiversity, and reduce or eliminate contamination with chemical substances harmful to workers, consumers and the environment.
Water management	Production and processing techniques that reduce water pollution; conservation of headwaters, riverbanks and lakeshores; watershed protection to avoid sedimentation.
Soil conservation	Production systems protect soil, avoid erosion and maintain fertility and microbial organisms.
Forests and biodiversity	Protect and conserve forests and natural ecosystems seeking maintenance of ecological equilibriums and biodiversity.
Pest control	Adoption of integrated pest management systems, seeking to minimize use of pesticides, with the goal being organic production.
Energy use	Efficient use of energy and non-renewable natural resources; priority to alternative sources of energy over polluting sources or those that require external inputs.
Waste management	Progressive adoption of technologies for pollution prevention; adoption of residuals reuse and recycling from coffee production and processing.

Sustainable Coffee Contracts – Views from Stakeholders

As part of the research undertaken for this study, an e-mail survey questionnaire was sent to participants in the online Sustainable Coffee Discussion Group during July-August 2003. Of about 65 stakeholder representatives who participated in the initial Geneva workshop, the response rate to the survey was 20 per cent, well distributed among stakeholder categories.⁴¹ Unfortunately, the views of producers themselves were not well represented, although organizations that provide support to coffee cooperatives and producer associations offered their views, defending the needs of smallholder coffee growers.

The vast majority of respondents affirm the validity of efforts to introduce what was termed an “S” contract, corresponding with sustainable development objectives, with the following provisos:

- Sustainable coffee contracts should be flexible and oriented toward stimulating long-term buyer-seller relations;
- But they should also be objective and concrete, following conventional market practice, if they hope to enter into the mainstream market;
- Contracts should be linked with third-party certification (“sustainability is a condition, not a merchandise”); and
- Contracts will not supplant the concurrent necessity for supply management to counter unstable and declining commodity prices.

When asked what clauses or themes should be included in contracts, most respondents considered the elements below to be most feasible for inclusion in a Sustainable Contract System (see questionnaire in Annex 1).

1. Buyer commitment to pay a premium based on costs associated with implementing specified sustainable production practices
2. Buyer commitment to enter into long-term contracts with producers implementing specified sustainable production practices
3. Buyer commitment to offer preferred supplier status to producers meeting specified sustainable production practices
4. As a condition for entry into such contracts, producers are expected to commit themselves to environmentally sound management practices
5. Producer commitment to compliance with national labour laws and ILO core labour standards

The remaining items proposed as possible elements in “S” contracts were perceived as either exceedingly controversial or with “low” or “no” feasibility for inclusion in such a system (see Annex for full listing of clauses suggested in questionnaire). These included the use of fixed minimum prices to ensure sustainable producers’ basic costs are covered; offering of credit or advance payment to sustainable producers; and making available information on market conditions to producers.

Respondents’ affirmed the difficulties in establishing an appropriate **minimum price** level that could defray the costs of transition to sustainable production systems, although all recognize that such conversion represents a cost that must be assumed somewhere along the value chain, or through indirect funding

⁴¹ The respondents included representatives of industry organizations, exporters, traders, roasters, certifiers, sectoral development authorities, NGOs, foundations/donors, policy analysts and consultants. All but one respondent had participated in the February seminar in Geneva. Responses to an initial draft survey were later merged with those to a more complete version transmitted over the discussion group list, and therefore some questions were not answered by all survey respondents.

instruments. The relationship between coffee quality as defined by existing contracts and price structures, and that assured by socio-environmental variables needs to be sorted out, as is the need to find ways to internalize unpriced values of environmental services. Can **price premiums** for environmentally friendly coffee pay for these services (e.g., clean water, soil erosion control)? How can they be made complementary with other mechanisms (e.g., incremental cost financing schemes such as the GEF)?

Are **preferred purchase** schemes of any use without a premium? Although preferred purchasing may stabilize long-term buyer-seller relations, respondents feel they need to be tied to specific pricing arrangements to allow the producer to invest in production system improvement. Participants feel the need for an objective assessment of the Starbucks' experience with preferred supplier relationships.

Transparency in market information is a public good that is rarely provided by market actors. While the respondents did not rank this element highly as an element to be assured in contracts, they do feel transparency is called for in market practice, and that producers rarely have access to sufficient information to guide their decisions. Who is to provide this service and how to get it to producers represents an important theme for further work on market intelligence in the coffee industry.

Pre-harvest **credit** represents another aspect that was controversial for respondents. While some feel buyers should not be made responsible for assuming such risks, others feel there is a real need for timely financing, depending on interest rates and repayment terms. Whether national and/or multilateral financing agencies can assume credit risk in such a highly volatile market is another question. To what extent are buyers willing to commit themselves to a **long-term relationship with producers**, and is this a good means to secure such a relationship? "If we want producers to be sustainable, shouldn't we have asked them to invest in this when the price conditions were good rather than in crisis?"

The need to abide by labour laws and internationally adopted labour standards is a fairly unanimous element for contract observance among respondents, but is more appropriate when considering contract relations with cooperatives or firms than with smallholders. Again, these represent additional costs to the producer that require some means to defray with pricing and/or credit.

When asked **who should bear the costs** for conversion of production systems to a sustainable footing, although by no means unanimous, respondents affirmed that producers would undoubtedly bear a share of the costs, though not necessarily in cash. However, there was a clear consensus that such conversion is a responsibility of other actors in the value chain as well. Most felt that the producing country government should have a role in making this possible, while importers and roasters were also identified as key candidates for assuming part of this burden. Nearly all felt that consumers and consuming country governments would have to foot a good share of the bill (most suggested the greatest share of the burden be on consumers). Multilateral agencies would also be called upon to support producers to undertake this conversion.

To a similar question regarding the **incidence of costs for validation and monitoring** of compliance with a sustainable contract scheme, respondents indicated their awareness that independent certification is an essential feature of building confidence in sustainable coffee production and trade. Although initially producers and their associations would bear these additional costs, depending on the efficiency of the market, such costs could be passed along the value chain and eventually be borne by consumers. Although governments and multilateral agencies may contribute to the success of accrediting and launching validation mechanisms, in the long run these systems must be self-perpetuating. One respondent recommended the adoption of spider graphs to show degree of compliance with sustainability criteria, and facilitate comparison over time to demonstrate progress. There was also some criticism of the retention of part of price premiums in the hands of certifiers, often based in consuming nations.

Possible Clauses to Include in Sustainable Coffee Contracts

As was discussed in section 2 of this study, contracts alone cannot assure all preconditions for sustainable coffee production and trade. However, formal contracts for sustainable coffee supply would represent an important first step toward resolving some of the gravest problems that the sector confronts, including uncertainty, high level of price fluctuation, disadvantageous price/cost relationship from the grower's perspective, lack of pre-harvest financing and poor working and environmental protection conditions.

From the buyers' side, long-term relationships with growers allowing purchase of a product of specified quality would permit greater supply chain management and the possibility to associate brands with reputational characteristics arising from social responsibility and avoiding association with a bitter taste of social inequality or environmental destruction. Long-term partnerships are sought to promote efficiency and welfare gains for all stakeholders.

Finally, from the consumer's perspective, the contract approach should allow clear identification of a sustainable product through a globally recognizable label or labels assuring traceability along the chain of custody. Greater availability of such products in the market at competitive prices would improve consumers' surplus and in the medium and long-term would stimulate a greater consumption of better quality coffees.

The proposal for a contract scheme that is adapted to the mainstream coffee market (i.e., market-driven) and that simultaneously stimulates sustainable production, trade and consumption implies the need to implement criteria adaptable to diverse countries, production systems and types of farmers. Contractual elements should not be excessively rigid as regards minimum requirements or those related to progress toward sustainable production and trade. Rigidity would act more as an instrument of exclusion, by imposing greater costs than those already faced in a crisis context. Yet minimum criteria will be necessary, associated with initiatives such as ICO Resolution 407 regarding quality parameters, aiming toward creation of value in consumer perception.

Standardization of sustainable coffee quality characteristics is also essential from the buyer's perspective. This makes necessary the establishment of standards regarding the delivery of sustainable coffees in the agreed quantity, quality and timing. Given the specificity of the product and the lack of a futures market that can buffer supply risks, contract instruments should provide a degree of standardization so as to avoid later problems of arbitration and high transactions costs in long-distance trade. In the long-run such standardization could permit sustainable coffees also to be traded in futures markets.

Based on the above principles, the following contract elements are proposed for consideration by stakeholders, subject to legal review and sectoral impact assessment:

a) Long term contracts between producers and buyers

Contracts should serve as the basis for the creation of long-term relationships between coffee buyers and sellers. Commitment at least over one full harvest cycle would permit a greater specificity of the quality of products and processes, so as to ensure availability of coffees adequate to suit market demand and specialized blends. For growers too, this will ensure a greater capacity to plan and obtain production financing as well as secure access to market channels for sustainable coffee. Long term contracts act as a basis to initiate this relationship, since over time reduced transactions costs, building mutual trust and economies of learning can create value and serve as the bases for continuity in trade relationships.

b) Price differentials for sustainable coffee, associated with a point system

Measuring sustainability in coffee production implies the need to distinguish between use of technologies that offer greater or lesser environmental quality and protection over downstream uses of natural resources. These practices constitute additional costs, if only in terms of learning or management associated with these

practices. But in fact the market penalizes these more sustainable producers since the socio-environmental costs associated with conventional practices are not internalized in producer prices.⁴²

The costs of conversion and their respective benefits suggest the need to find means to internalize these costs.⁴³ One means to do so is that of defining price differentials under contract, following a point system similar to that used for gauging product quality, thus serving as a means to motivate production system improvement. It must be remembered however, that any such system would likely require some form of third party validation to maintain effectiveness and credibility.

c) Preferred supplier status for sustainable coffee growers

Preferred supplier status may be incorporated in mainstream contracts, imputing social responsibility on firms that opt to include sustainable coffee growers in their portfolio of suppliers. Preferential treatment may vary, such as in the case of Starbucks,⁴⁴ according to a point system associated with level of socio-environmental sustainability, while observing quality criteria common in standard contracts. Preferential purchase relations allow a measure of flexibility to adapt production processes to achieve the stipulated levels over time.

d) Pre-harvest payment or credit for growers

As a perennial crop subject to biennial variation in productivity, coffee growing represents a long-term risk prone investment. The grower must confront a long waiting period before reaping returns from new planting. Most producing countries lack adequate credit infrastructure. Insufficient resources and poor timing in release of funds, high costs of working capital, lack of real guarantees (other than the land itself) and the predatory actions of unscrupulous middlemen all add risk to taking credit.

Sustainable coffee contracts can be associated with a number of credit options to cushion production risk:

- a) pre-financing of a proportional value of the contract, paid upon product delivery;
- b) using the contract as a loan guarantee, providing access to differentiated credit terms in domestic markets;⁴⁴
- c) access to international financing obtained through multilateral channels and directed toward sustainable coffee production.

e) Buyers' assistance toward certification costs

Because coffee characteristics are not differentiated by the way the product was produced, third party auditing and/or certification is a virtual pre-requisite to linking contractual benefits to non-product related PPMs. This will require that stakeholders agree on a minimum set of easily verified objective indicators that will permit efficient and low cost certification, preferably engaging national accredited certifiers and local inspectors.

The current economic crisis in the coffee market and low grower capitalization, would suggest that most certification costs be paid at the outset by buyers at the moment they enter into a pre-harvest credit agreement with growers. Alternatively, buyers could contribute to a general fund for sustainable coffee production, which would manage the process. To reduce the costs of such a scheme, producing nations and certifier groups could contribute toward the creation of the necessary accreditation infrastructure, and furnish logistic support.

⁴² This refers both to cases in which producers rely on high input levels to achieve greater productivity and in those in which costly inputs are substituted by natural resource exploitation beyond sustainable levels, whose opportunity costs are not reflected in product prices (Karp, 1994).

⁴³ In the long run adoption of sustainable production practices may become less onerous (depending on the production system and region under consideration). This is true because there may be economies in conservation, when a certain number of producers in a given region adopt similar approaches, as well as to thresholds in natural systems, in which a modest improvement may provide substantial biophysical benefits to local ecosystems and producer communities at low cost.

⁴⁴ For example, in Brazil there exists an export advance scheme (ACC) in which the exporter can receive funds against the value of a sale contract at concessionary interest rates.

f) Improving traceability and transparency along the supply chain

Traceability of product origin and of production processes, as well as transparency with respect to the formation of prices and marketing margins, are considered desirable features for a sustainable contract regime. Traceability is linked with product certification, for the chain of custody of coffee produced in sustainable production systems should assure that it is not adulterated with non-sustainable coffees, creating confidence in brand representations to that effect to the consumer.

Transparency along the production and trade chain will provide information that may permit producers, buyers and consumers to assess the extent to which international exchange relations promote social equity, one of the three pillars of sustainability. Such transparency can also enable monitoring of price differentials for sustainably produced coffees.

g) Product quality standards consistent with ICO Resolution 407

Sustainable coffee contracts should be based on current standards of classification and quality (product/origin related) as traditionally defined by the market. The ICO proposal for a minimum quality standard for coffee for the international market would serve as a basic reference within this framework. To this would be added elements that would differentiate the product as to attributes of the production process, long-term agreements, supplier preference and so on.

h) Producer commitment to environmentally sound practices

Commitment to environmentally sound production practices is one of the cornerstones of the “S” contract scheme. However, it would be counterproductive to impose a series of complex norms, difficult to adopt from the outset of such a scheme, as this would create barriers to entry and limit the prospects for mainstreaming sustainability. It would therefore be prudent to establish initial minimum standards based on a consensus among stakeholders. These would serve as the basis for defining criteria and norms for certification.

Further studies of adaptability, impacts and associated costs among different producer nations and among production organizations, would allow specific norms to be calibrated so as to better respond to mainstream market demands as time goes by.

i) Commitment to national labour laws and progressive adaptation of ILO rules

Stakeholders who responded to our survey were fairly unanimous that adherence to labour laws should represent a core aspect of sustainable coffee contracts. However, there is considerable variability among national labour codes with respect to salaries, benefits, safety in the workplace, remuneration of women’s work, child labour, unionization, labour rights, etc. Given such variability, the International Labour Organization (ILO) has established codes that have been increasingly treated as universal.⁴⁵ Nevertheless, total exclusion of child labour, for example, may not be acceptable from the perspective of rural households. It could be more important to ensure that children be enabled access to quality education but that they also be free to assist their families at harvest time.

In any case, these conditions cannot be resolved by coffee contracts or by the price producers receive for their product, but rather by the presence of adequate national legal protections and social programmes that

⁴⁵ The ILO Labour Codes, adopted in as many as 185 distinct United Nations Conventions (<http://www.ilo.org/ilolex/english/convdisp1.htm>), have been consolidated by the business-oriented Ethical Trade Initiative (ETI - <http://www.ethicaltrade.org/pub/publications/basecode/en/index.shtml>) into nine “Base Code” criteria, as follows: (i) Employment is freely chosen; (ii) Freedom of association and the right to collective bargaining is respected; (iii) Working conditions are safe and hygienic; (iv) Child labour shall not be used; (v) Living wages are paid; (vi) Working hours are not excessive; (vii) No discrimination is practiced; (viii) Regular employment is provided; (ix) No harsh or inhumane treatment is allowed

respond to these issues. Sustainable coffee contract provisions should include observance of national labour codes and provide for compliance with ILO codes as a requirement demonstrating adequate progress toward sustainability. These concerns should be resolved through establishment of a relevant standards-setting body that can resolve competing views on this theme.

j) Delivery guarantees linked to production variation and credit

Coffee production is exposed as much to risk from price variation as it is from natural and managerial processes affecting productivity. Even with long-term contracts assuring sustainable supply from collective producer organizations, the buyer is not always assured delivery according to the agreed parameters of quantity, quality and timing. This can occur as a result of the previously mentioned risks as well as from organizational problems among producers, the fidelity of their associates to collective contracts, as well as by opportunistic response to better price offers from intermediaries. Over time contract clauses would need to ensure adequate protection for buyers, possibly through the development of improved legal mechanisms or credit guarantees.

Toward Implementation of a Sustainable Coffee Contract Scheme

To implement a contract scheme for sustainable coffees would require a number of preparatory activities as well as support infrastructure. Most importantly, it would require the involvement of all stakeholders in the production and trade chain in negotiations to define contract provisions and put them to test in practise.

Before going any further, it will be necessary to create the preconditions for such contracts to function, based on clear, recognized definitions, standards, criteria and negotiated solutions. Necessary actions in this regard should be prioritised within the short- and medium-term. Short-term actions could be accomplished within a 1-2 year period, while medium-term actions would require a longer time frame.

In the short-term, negotiations should be initiated to define the bases for these contracts, using available information and rapid appraisals to address uncertainty. Provisional establishment of “S” contracts would follow, providing an opportunity to test the mechanism on a trial basis in a variety of contexts. The feedback from these initial experiences could then be complemented by more detailed studies, which would provide results in the medium-term, to allow adjustment in contract provisions for longer-term adjustment. Table 9 below lists the principal stages in this process, and suggests a possible order of implementation. Further details on the proposed actions are provided below.

Table 9: Actions and time frame for implementing sustainable coffee contracts

Actions to implement sustainable coffee contract scheme	SHORT-TERM	MEDIUM-TERM
Invite negotiating partners to the table	IMMEDIATE	
Achieve consensus on definition of sustainable production practices		
Define parameters for price differentials (sustainability gradients)		
Define long-term contract provisions and pre-harvest financing		
Priority for purchase of sustainable coffees		
Establish basis for third-party verification		
Evaluate potential for a global reference label		
Create mechanisms for traceability and transparency		
Design and implement product delivery and credit guarantees		

a) Who is at the table in sustainable coffee contract negotiations?

In an initial phase of negotiations, it would be appropriate to limit the scale and number of inquiries in producing countries by focusing on associative coffee enterprises actually or capable of becoming engaged in international trade, large estate farmers, exporters, agents and trading companies. On the buyers' end, importers, roasters, distributors and consumer organizations should be included. The Sustainable Commodity Initiative, which already includes a lively cross-section of the industry, would be a logical starting point.

b) Consensus on “sustainable coffee production and trade”

The need to define what is meant by sustainable coffee production is one of the principal challenges that confront the sector. Even when we agree that sustainability should respond to economic, social and environmental dimensions, there is a tendency to give different weights to each of these parameters in practice. Coffee production itself occurs under a tremendous range of conditions, with variable productivities of the factors of production placed at its disposal.

Sustainability is perceived as a process rather than a condition that once achieved is then possible to maintain under stable conditions. Nevertheless, the complexity of adapting coffee contracts to a range of process-oriented conditions would be contrary to the simplicity we are seeking in establishing a mainstream system.

The existing profusion of coffee labels adds to the consumer's confusion at the moment of purchase, about what kind of product she is acquiring, making it difficult to affirm that her act represents an effective source of support to sustainable coffee growers. This problem also allows free riders to profit and/or gain brand reputation from insufficiently proven assertions about the product they are promoting.

A global sustainable coffee label accredited by an appropriate independent multilateral organization could help to arrest this confusion among consumers and serve as a justification for price differentials at the point of sale. Roasters and distributors would also be able to benefit by adding a sustainable quality feature to coffee brands they market. Such a scheme could surely recognize regional distinctions in coffee quality and origin, but offer a unified sustainability assessment.

c) Sustainability gradation for price differentials

To establish criteria for sustainable coffee contracts requires first of all that minimum criteria associated with socio-environmental factors be defined on a consensual basis. Once these are defined, it will probably be necessary to negotiate a point scale for these criteria that may be associated with price differentials. Most social and environmental attributes may be scaled according to Yes/No criteria: producers either do or do not use such and such practice, but there are some that may require more subtle gradation (producers practice, commit themselves to adopt over x years, or do not practice). The respective weights accorded any given attribute and its gradation would need to be determined, associated with cost, difficulty of adoption, and off-site versus productivity effects among other factors.

The critical issue in such negotiation is that of identifying what incentive is needed in the price structure to motivate producers in more sustainable direction. A fundamental criterion for this is that the price received by producers adequately remunerates the factors of production employed.

d) Long-term contract provisions provide pre-harvest financing

Sustainable coffee production should assure that the term of grower-buyer relations permit a minimum of planning in response to the perennial nature of the crop. Long-term contracts will necessitate establishment of legal criteria and associated guarantees. The minimum duration of a contract should be one full harvest cycle, being extensible for longer periods, depending upon the agreement between buyers and sellers.

In consideration for pre-harvest production costs and credit restrictions in producing countries, the possibility of pre-financing could be explored with buyers, donors and/or multilateral finance agencies.

Producers may more easily access domestic financing if long-term contracts stipulate a reference price level as a contract guarantee.

e) Prioritize sustainable coffee buying

It would appear in the interests of sectoral representatives to give some priority in initial stages of defining the contract scheme, to purchasing coffees with sustainable characteristics as a means of signalling interest and expanding this segment. Preferred supplier relationships could be established at the outset, combining both the potential for long-term supply agreements and sustainable production practices.

f) Third-party verification systems

Quality characteristics distinguished in standard coffee contracts cannot be used to discriminate sustainably grown coffees, as these do not have distinguishing features in the product, but rather must be discriminated as to production system of origin. To confidently offer a label of sustainable source requires independent certification procedures. Such procedures should also include chain-of-custody measures or traceability to ensure that sustainably labelled coffees arrive at the point of consumption free of adulteration.

Certifiers and certification criteria must be accredited according to internationally recognized norms, and must be acceptable to both parties in a given contract. To ensure traceability, certifiers should also be associated with similar agencies in the destination countries. In the case of sustainable coffee certification, a number of recognized independent certifiers for both organic, fair-trade, shade-grown coffees etc. already exist. For application to mainstream markets, it would be necessary to find ways to reduce transactions costs, and achieve economies of scale in verification methods, perhaps by using a sample-based inspection system on producers contributing to a given lot for a producer cooperative. NGOs and governmental agencies might be called upon to assist in certification processes in coffee growing areas.

h) Transparency and traceability along the value chain

The following concerns should be addressed in contract provisions, designating those responsible at each stage of the value chain:

- a) Price differentials should be transmitted through to the base of the chain, benefiting producers and their associations;
- b) Downstream agents in the chain should seek means to reduce transactions costs, and become long-term partners in the supply chain;
- c) Maintenance of the integrity and originality of each lot sold as sustainable coffee, avoiding mixture with conventional raw materials;
- d) Third party certifiers or an equivalent mechanism should monitor the chain-of-custody.

i) Delivery and credit guarantees in long-term contracts

To avert or cushion against losses due to uncontrollable factors affecting harvest variability, an insurance and credit guarantee scheme associated with long-term sustainable coffee contracts may be necessary. Producing countries would be responsible for developing the legal infrastructure that would enable such risks to be covered, as well as to offer the necessary guarantees for buyer-seller transactions. An alternative or complementary system could be developed through a common fund administered by a multilateral coffee trade body, financed by a percentage of coffee purchases.

Impacts and Research Requirements for Sustainable Coffee Contracts

To conclude this initial discussion of priorities for implementation of a sustainable coffee contract regime, we suggest several lines of necessary further investigation that would support such a regime in practice. These include the need to assess production costs associated with internalization of socio-environmental attributes, as well as the extent to which consumers are willing to pay more for coffees certified to possess such attributes. Such studies will permit a

better assessment of the potential for market clearing for sustainable coffees, if markets can be made more efficient and competitive. Finally, we suggest the need to investigate the prospects for establishing sustainability as a criterion for futures contracts for coffee as a hedge against risk for both buyers and sellers.

a) Assess costs of coffee production associated with sustainability

Coffee production and maintenance costs vary considerably among producing countries and regions, as well as between principal cultivars and processing techniques (wet/dry). These costs, where registered, are assessed according to different accounting systems, and include different elements. This diversity becomes even more complex when we add to conventional practices those features that make coffee production sustainable. We therefore propose the realization of an ample comparative study of production costs, seeking to identify the additional costs associated with sustainability attributes, as a basis for defending price differentials and establishing benchmark conditions for investment in production system improvement and enhancement. At a more aggregate level, it will be important to detect the effect of sustainable coffee supplies on global coffee production and trade. Such an assessment could be made using econometric simulation techniques, within a broader integrated supply chain analysis. But the global impact of a contract scheme would only be possible to evaluate once such contracts had been introduced and become part of the mainstream supply system.

b) Assess willingness to pay of consumers for sustainable coffees

Supply of sustainably produced coffees, depending on the price differential to the consumer, will affect product demand and the potential for market growth. Experience with organic produce suggests that initial price differentials may be high, but as more and more organic growers enter the market, these margins decline due to competition, leading to a more homogeneous final consumer price. Differential attributes become a factor in market segmentation, but not necessarily restrict demand to narrow niches.

To assure successful market penetration for sustainably produced coffees, major distributors and purveyors will need to engage in promotional and educative campaigns with the aim of informing the greatest number possible of consumers regarding the socio-environmental benefits derived from purchasing these products. But propaganda and promotion should be matched with evaluation of consumers' willingness to pay for sustainable coffees vis-à-vis conventional brands.

c) Evaluate the potential for futures markets for sustainable coffees

As the market for sustainable coffees expands, and the attributes of such coffees are standardized in long-term contract provisions, the potential for establishment of "S" contract futures and options markets becomes more tangible. The hedge offered by futures trading could eliminate part of the risk for both buyers and sellers arising from price fluctuations in physical coffee transactions (PTBF). It could also overcome eventual supply deficits arising either from uncontrollable risks or opportunism on the part of suppliers. An evaluation and trial of these potential hedge opportunities would necessarily occur further down the road, once sustainable coffee contracts had been fully institutionalized at a physical level.

Appendix II: Revised Questionnaire: Sustainable Coffee Contracts

Based on the SCI workshop: “Sustainability in the Coffee Sector: Exploring Opportunities for International Cooperation Towards an Integrated Approach” (held in Geneva on Feb. 17-18, 2003), follow-up interchange among participants defined high-priority options for research, impact assessment and action. Among these, participants identified the importance of issues related to contractual terms such as price, length of term, risk distribution and other tied arrangements.

Please provide us with some information about yourself:

- 1) **What segment of the supply chain or stakeholder group do you represent?** (e.g., producer association, broker, distributor, roaster, etc.) _____
- 2) **Did you participate in the initial Geneva seminar?** Yes () No ()
- 3) **Do you think there is a role for the development of a system of “S-contracts” (sustainable coffee contracts) for the coffee sector which could serve as a reference in much the same way as existing model contracts for the coffee sector?**
 - a. Yes () No ()
 - b. Please explain your response:

4) If a model S-contract were developed what types of clauses or themes do you think would be most appropriate for coverage in such a contract:	Feasibility for inclusion within a Sustainable Contract System				Main issues/restrictions/opportunities for consideration in adopting these clauses or themes:
	HIGH	MEDIUM	LOW	NONE	
• Buyer commitment to pay minimum fixed prices based on social, environmental and economic costs of production to producers who meet specified sustainable production practices					
• Buyer commitment to pay a premium based on costs associated with implementing specified sustainable production practices					
• Buyer commitment to offer preferred supplier status to producers meeting specified sustainable production practices					
• Buyer commitment to enter into long-term contracts with producers (implementing specified sustainable production practices)					
• Buyer commitment to provide essential market information to producers (implementing sustainable production practices)					
• Buyer commitment to provide pre-payment or credit to producers (implementing sustainable production practices)					
• Producer commitment to environmentally sound management practices (e.g., integrated pest management etc.)					
• Producer commitment to compliance with national labour laws and ILO core labour standards					
Others: _____ _____					

Please elaborate on your response to question 4, above:

5. Considering the need to improve sustainability in the coffee value chain, please indicate the relative contribution needed by different actors in the supply chain to support coffee contracts in the following contexts:

<p>5.1 Who should bear additional costs associated with <u>conversion</u> to sustainable productions systems?</p>	<input type="checkbox"/> Producers: _____ % <input type="checkbox"/> Producing country government _____ % <input type="checkbox"/> Importers _____ % <input type="checkbox"/> Consumers _____ % <input type="checkbox"/> Consumer country government _____ % <input type="checkbox"/> Multilateral trade organization _____ % <input type="checkbox"/> Other. Who? _____ and _____ %
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<p>5.2 Who should bear additional costs associated with <u>validation mechanisms</u> (e.g., certification...) and with the <u>maintenance of sustainable coffee production systems</u>?</p>	<input type="checkbox"/> Producers: _____ % <input type="checkbox"/> Producing country government _____ % <input type="checkbox"/> Importers _____ % <input type="checkbox"/> Consumers _____ % <input type="checkbox"/> Consumer country government _____ % <input type="checkbox"/> Multilateral trade organization _____ % <input type="checkbox"/> Other. Who? _____ and _____ %
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Remarks:

If you can spare us the time, we would very much appreciate if you could please detail your responses, in the below spaces:

A) Why would certain sustainability principles be more or less difficult to implement through a contract system?

B) What other tools and instruments (e.g., certification infrastructure and consumer confidence in specific labels) are necessary to achieve such objectives?

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Appendix IV: Web Sites for Further Information Regarding Contracts Reviewed

“C” and “Mini-C” contracts for Arabica futures – New York Board of Trade (NYBOT) --
<http://www.nybot.com>

LIFFE Exchange Contract n° 406 Robusta Coffee Futures Contract (A) Contract Terms (RCFC/A) and (B) Administrative Procedures (RCFC/B) - <http://www.liffe.com/trade/specs/406coffee.pdf>

ECF 2002 European Coffee Contract: <http://www.ecf-coffee.org/Downloads/Webiste%20Contracts%20ECC%202002.pdf>

Green Coffee Association Contract – Physical coffee: <http://www.green-coffee-assoc.org/images/finaldraft402.pdf>

Bolsa de Mercadorias e Futuros – B&MF (Brazil): <http://www.bmf.com.br/>

Contract for Availability of Arabica:
<http://www.bmf.com.br/pages/Contratos1/ContratosAgroCafeDisponivel1.stm>

Futures Contract for Arabica:
http://www.bmf.com.br/pages/Contratos1/pdf/Agropecuarios/Cafe_arabica_futuro_24-04.pdf

Altered by OC 069/2003-DG, 30/6/2003:
http://www.bmf.com.br/pages/informes1/junho_2003/OC069-2003.pdf

Contract for Option to Buy on Futures of Arabica:
<http://www.bmf.com.br/pages/Contratos1/pdf/Agropecuarios/Cafeserialcompra.pdf>

Contract for Option to Sell on Futures of Arabica:
<http://www.bmf.com.br/pages/Contratos1/pdf/Agropecuarios/Cafeserialvenda.pdf>

Futures Contract for Robusta Conillon:
<http://www.bmf.com.br/pages/Contratos1/pdf/Agropecuarios/CafeConillonFuturo.pdf>

Contract for Option to Buy Futures of Robusta Conillon:
<http://www.bmf.com.br/pages/Contratos1/pdf/Agropecuarios/CafeConillonCompra.pdf>

Contract for Option to Sell Futures of Robusta Conillon:
<http://www.bmf.com.br/pages/Contratos1/pdf/Agropecuarios/CafeConillonVenda.pdf>

FLO small farm organization coffee standards <http://www.fairtrade.net/pdf/sp/english/coffee%20.pdf>

FLO generic standards for hired labour: <http://www.fairtrade.net/pdf/hl/english/generic.pdf>

Starbucks Preferred Supplier Green Coffee Purchasing Pilot Programme
<http://www.celb.org/pressreleases/PreferredSupplier.pdf>

Utz Kapeh Code of Conduct <http://www.utzkapeh.org/Utzkapeh/ukwebsite.nsf/portal?Openframeset>