Rural Enterprise Development Involving Small Producers: Towards Strategic Specialty-Coffee Networks in Nicaragua and Honduras [1]

March 2004
Jason Donovan [2]

1. Rural enterprise development in an increasingly globalized marketplace

The latest wave of globalization, which began about 1980, has resulted in **unprecedented economic integration** through accelerated flows of trade, migration, capital and information. Over the past decade, countries in Latin America have increasingly integrated their economies into the global marketplace. Collectively, they have signed over 20 bi- and multi-lateral free trade agreements and they actively participate in trade negotiations under the auspices of the World Trade Organization (WTO) and the Free Trade of the Americas Agreement (Murillo *et al*., 2003). Advances in globalization imply both opportunities and challenges for enterprises of different sectors and sizes. To capitalize on these opportunities, it is critical that small and medium enterprises (SMEs), as well as large enterprises, increase their competitiveness in terms of costs, quality, and market linkages.

The international market for coffee is an illustrative case of the opportunities and challenges resulting from recent advances in economic globalization. The steady increase in world coffee production and export levels, combined with relatively slow growth in aggregate demand for coffee among major importing regions, namely the European Union and North America, has resulted in significantly increased competition among producers and exporters. Between 1999 and 2002, averages prices in international coffee markets fell by 50 percent (in real terms), reaching a 30 year low. In this highly competitive marketing environment, **product differentiation has emerged as the *sine qua non* for achieving long-term competitiveness**. International markets differentiate coffee based on its physical attributes, such as **high-quality coffee** (grown at altitudes exceeding 800-1000 meters), or intangible attributes related to production processes and/or trade practices, such sustainable coffee. The latter includes products such as **organic** (produced with methods that preserve the soil and prohibit the use of synthetic chemicals), **shade-grown** (cultivated in shaded tree or forest settings that foster biodiversity) and **fair trade** (purchased directly from small-producer cooperatives that are guaranteed a minimum contract price). **Differentiated coffee products, or 'specialty coffees,' are one of the fast growing segments of the global coffee market,** with growth rates estimated at nearly 30 percent growth between 1999 and 2001 (Giovannucci, 2001). By 2001, specialty coffees accounted for 17 percent of total green coffee imports by volume into the United States, and its sales represented approximately 40 percent of the total U.S. coffee market.

---

[1] Prepared for CATIE-MIP/NORAD proposal "Appraisal and Baseline Study: Multi-Sector Strategies to Strengthen the Capacity of Farm Households and Growers Associations to Innovate Under Ecological and Economic Uncertainty," financed by The Norwegian Agency for Development Cooperation (NORAD)

[2] Rural Enterprise Development Economist, Center for Competitiveness of Ecoenterprises (CeCoEco), CATIE 7170, Turrialba, Costa Rica; Tel: (+506) 558-2217, Fax: (+506) 556-8514; E-mail: jdonovan@catie.ac.cr

For small producers in Nicaragua and Honduras, specialty coffee markets represent a promising opportunity to increase incomes without comprising the natural resource base. In the highlands of the two countries, a high percentage of coffee is produced under appropriate climatic, soil and altitude conditions and in view of the relative abundance of small-scale production and traditional production and post harvest techniques, there exists considerable opportunity to increase market share (Varangis *et al*., 2003). Currently both countries export relatively little of total coffee production into specialty markets (10-15% of total exports). **Unfortunately, most small producers and rural small and medium enterprises (SMEs) in Nicaragua and Honduras face a number of constraints that effectively limit their competitiveness in specialty coffee markets** (IDB, 2002; Mendoza, 2002; Zehner 2002; Donovan, 2003; IICA, 2003), including:

- **Small producers**: Rudimentary production and host-harvest treatment techniques resulting in low productivity and reduced quality; restricted access to credit and market information
- **Production cooperatives and associations:** Weak organizational and administrative capacities; limited access to processing facilities, insufficient levels of working capital
- **Marketing cooperatives and associations**: Inefficient administrative structures; difficulties to comply punctually with quality and volume requirements; insufficient market contacts; limited demand for certain specialty markets (e.g., fair trade)
- **Commercial exporters:** limited number of market contacts; insufficient volume to meet specialty importer requirements on a regular basis.

These restrictions can be overcome through the formation of effective strategic networks along the coffee value chains. This paper explores the **challenges and opportunities for developing strategic networks involving small producers along specialty-coffee value chains based in Nicaragua and Honduras**. The following section discusses the value chain concept, and how it provides a basis for identifying strategies for strategic network development involving small producers. The third section identifies the major constraints for special-coffee strategic network development. The final section outlines specific options for strengthening the competitiveness of rural SMEs based in Nicaragua and Honduras via the strengthening of value chains for specialty coffee.

2. Conceptual framework for rural enterprise development involving small producers

In response to increased demand for high quality products, retailers and importers in major consuming countries have sought increased access to exporters and producers able to meet requirements for quality, timely delivery, and certification (Dolan *et al*., 1999). Integrated global supply chains, or **value chains**, link producers and traders in developing countries with suppliers and customers in developed countries (Kaplinsky 2000; Sturgeon, 2001). Value chains tend to evolve in specialty product markets where competitiveness is based largely on special attributes such as quality, year-round availability, appearance, and variety, rather than price (see for example Kaplinsky and Morris, 2000; Gibbon, 2001; Ponte, 2002). Value chain analysis provides a useful framework for understanding inter-business relationships in the context of international trade, shedding light on which actors define what the chain requires (i.e., the rules of the game) and the value-added at each stage of production and distribution thus providing a necessary underpinning for evaluating the opportunities and challenges for upgrading along the chain.[3] Along coffee value chains, two basic types of inter-business relationships are prevalent (Table 1):

- **Arm's length market relations:** Buyer and supplier do not develop close relationships; there is limited exchange of information and without the use of transaction-specific assets. These relations result when the product is standardized or easily customized and buyers' requirements can be met by a range of firms and that the switching costs for both parties are low (see Humphrey and Schmitz, 2003).
- **Strategic Networks:** Enterprises cooperate in a coordination- and communication-intensive relationship, frequently dividing essential value chain competences between them. In *reciprocal networks*, the interaction is coordinated and the relationship is characterized by relatively high degree of mutual dependence. The buyer may specify certain product performance standards or process standards to be attained, but would be confident that the suppler can meet them (see Hobbs *et al*., 2000). In *captive networks*, one firm exercises a high degree of control over other firms in the chain, frequently specifying the characteristics of the product to be produced, and the processes to be followed in its production. The level of control can arises, in part, from the buyer's perceived risk of losses form the suppliers' performance failures (see Sturgeon, 2002).

Table 1. Salient features of two types of inter-business in global value chains, with emphasis on small-scale producers and rural SMEs

	Arm's length market relations	**Strategic networks**
Product specificity	*Low*–competitive advantage is derived from selling high volumes at low cost	*High*–rewards for high quality & special attributes
Required degree of internal business organization	*Low*– different levels of interme–diation effectively reduce need for internal business organization	*High*–first and second level cooperatives and associations replace certain functions of intermediaries
Information sharing with other actors	*Little*– limited to price, quality and logistics; information asymmetry between producers and buyers	*Extensive*– sharing of market intelligence, certification required to reduce information asymmetry
Coordination with other actors	*Little*–buyers trade with a large number of competing suppliers; primary producers tend to depend on a limited number of buyers	*Extensive*–buyers and suppliers seek out mutually beneficial relationships; joint strategic planning
Risk-benefit sharing	Risk results from supply and demand fluctuations	Distributed according to pre-established terms
Primary sources of financial, technical and business services	Buyers, Government agencies, NGOs	NGOs, Government agencies, private banks and consultants; buyers, (inter)national certifying bodies

[3] The value-chain literature distinguishes between four types of upgrading: 1) *process upgrading*: transforming inputs into outputs more efficiently by reorganizing the production systems or introducing superior technology; 2) *product upgrading*: moving into more sophisticated product lines; 3) *functional upgrading*: acquiring new functions in the chains to increase the overall skill content of activities; and 4) *inter-sectoral upgrading*: using the knowledge acquired in particular chain functions to move into different sectors (Humphrey and Schmitz, 2003).

This paper explores the challenges and opportunities for the **formation of viable strategic networks along the conventional HG and sustainable coffee involving small coffee producers in Nicaragua and Honduras**. For small coffee producers and rural SMEs, the development of strategic networks along these chains offers opportunities for lowering transaction costs related to accessing international markets; upgrading production processes and product quality; accessing low-cost short and long term credit, as well as increasing security in inter-business relations via contractual arrangements. On the other hand, given the problems described in the previous section, the development of effective strategic networks will require that small producers and rural SMEs invest in upgrading their administrative, organizational and productive capacities.

Data collection for this study was conducted with cooperation from the Honduran Coffee Institute (IHCAFE) and the Nicaraguan Coffee Producers' Union (UNICAFE) and industry experts in the departments of Jinotega, Nicaragua and El Paraíso, Honduras. These two departments were chosen because of their 1) high potential to product and market specialty coffee and 2) overall importance of national-level coffee production (Jinotega 41% and El Paraíso 13%). Data were collected during 31 semi-structured interviews. The sample design was constructed to be representative as possible for the following value-chain actors: producer cooperatives, exporters (commercial and marketing cooperatives) and service providers (Table 2). However, data omissions and biases may exist. Information on producers was obtained via interviews with downstream value-chain actors and via secondary sources.

Table 2. Actors sampled in Jinotega, Nicaragua and El Paraíso, Honduras

Actors	**# actors interviewed**	
	Jinotega	**El Paraíso**
Production Cooperatives	2	3
Marketing Cooperatives	2	3
Commercial processors/exporters	3	3
Local and regional intermediary	1	1
Service providers	5	7
total	13	18

3. Value chains for conventional high-grown and sustainable coffees

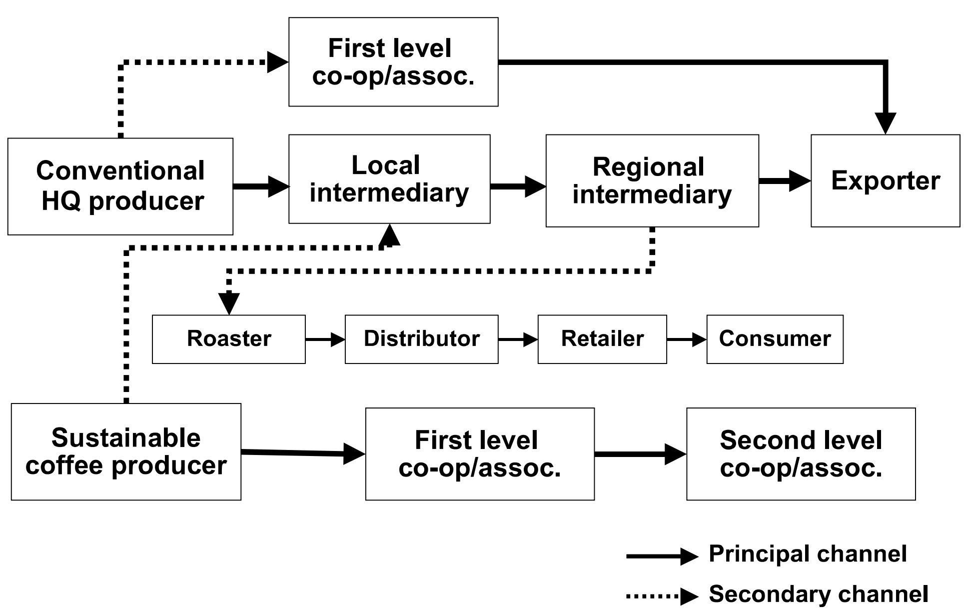
This section identifies the key actors and their inter-relationships along two types of specialty coffee value chains: conventional, high-quality (HQ) coffee and sustainable coffee. Figure 1 illustrates the different participants and major product flows along the Nicaraguan and Honduran segments of the two chains. In the sustainable coffee chain, small producers organize into cooperatives and associations at the first and second levels to achieve economics of scale in production and commercialization and comply with the requirements of international buyers.[4] The primary goals of first-level cooperatives and associations are to increase bargaining power with buyers, reduce average costs for certification and access technical, business and financial services. Second-level cooperatives and associations collectively market sufficiently large volumes for export, establish relations with international buyers, coordinate certification among members, and negotiate advantageous terms-of-trade for their members. Buyers of specialty

[4] Because of the high level of credence attributes (product or process characteristics that buyers cannot easily discern) associated with sustainable coffees, importers tend to reduce risk by buying directly from enterprises in close and sustained contact with primary producers.

coffee also include intermediaries along the conventional HQ coffee chain, reflecting the tendency producers to sell in conventional chains at lower prices to cover short falls in cash flow during the growing season. The sustainable coffee chain also includes a variety of actors providing technical, business and financial services, including NGOs, quasi-government agencies (e.g., UNICAFE, IHCAFE), rural development projects, and private financial institutions.

Conventional HQ coffee chains in Nicaragua and Honduras involve numerous small producers that cultivate small plots of land often located in remote areas. Local and regional intermediaries replace certain functions of first- and second-level cooperatives and technical and financial service providers. In addition to the buying, transporting and selling of green coffee from geographically dispersed small producers, intermediaries also play a key role in providing market intelligence, delivering production inputs, and providing short-term credit on demand to small-scale producers.[5] Regional intermediaries sell directly to exporters or local roasters, depending on coffee quality available and relative prices. In limited cases, producers have successfully bypassed intermediaries by organizing into first-level cooperatives and associations and selling directly to exporters. In both Jinotega and El Paraíso there exist a limited number of coffee exporters due the high barriers of entry. Technical and financial service providers identified along the conventional chain include quasi-government agencies, private banks and agro-chemical suppliers.

Figure 1. Key actors and major product flows along Nicaraguan and Honduran segments of chains for conventional HQ and sustainable coffees

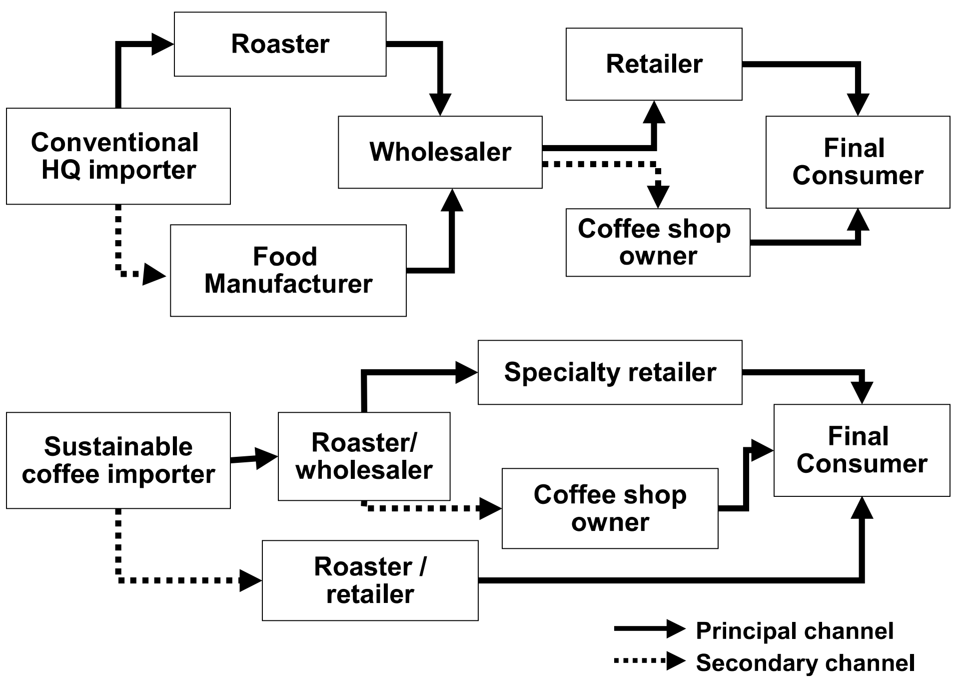


[5] In Honduras, intermediaries also play a critical role in drying coffee beans. If humidity levels are too high for over 24 hours, coffee quality begins to deteriorate. Roughly 50% of coffee farms in Honduras do not have access to appropriate facilities for drying coffee following the wet method of depulping (IICA, 2003).

Key actors along the northern segments of the conventional HQ and sustainable chains include importers, roasters, wholesalers, retailers, and final consumers (Figure 2). The primary commercialization channels for the two coffee types are similar, reflecting the increased importance of grocery store sales for sustainable coffees. However, roasters of gourmet and sustainable coffees may sell directly to consumers via electronic commerce and specialty retail outlets.

Along the sustainable coffee chain, a limited number of emergent strategic networks were identified, mainly between first- and second-level cooperatives. However, these networks were limited in depth, usually involving a small number of chain actors (usually 2-3) and were unable to achieve the levels of coordination, cooperation and communication necessary to fully realize the benefits of strategic networking. Table 3 identifies the challenges for **strengthening existing strategic networks** in sustainable coffee chains, along with their underlying causes. Along the conventional HQ coffee chain, inter-business relations are highly competitive, or arms' length, with relatively high levels of opportunistic behavior by the different actors. Table 4 explores the major obstacles facing the **development of strategic networks** along the conventional HQ coffee chain.

Figure 2. Key actors and major product flows along international segments of conventional HQ and sustainable coffee chains based



Adapted from Fetter & Kaplinsky (2000), Giovannucci (2001)

Table 3. Major challenges for consolidating strategic networks along sustainable coffee value chain based in Nicaragua and Honduras

Challenges	Underlying causes
First-level cooperatives and associations	
Insufficient quality throughout the growing season	• Inefficient production and post harvest technologies (hulling machines that are not adequately calibrated, over fermentation of green beans, inadequate drying conditions) • Uncertainty about price signals • Lack of know-how and limited access to training and extension facilities • Limited access to affordable credit • Insufficient working capital to cover operational costs and crop procurement from members for the entire growing cycle • Logistical bottlenecks resulting in fermentation of green bean
Lack of business orientation by producer cooperatives and associations	• Limited access to effective services for enterprise development • Low ability and willingness-to-pay for business services
Adverse business climate	• Lack of transparency in buying and selling of coffee
Second-level cooperatives and associations	
Difficulties to strengthen inter-business relations with production cooperatives, intermediaries, and international buyers	• Difficulties in managing foreign activities (language and cultural gap, quality and contracting requirements, low service orientation) • Lack of business orientation among first-level cooperatives and associations
Restricted business contacts and distribution channels	• High transaction costs to acquire information and knowledge about international sustainable coffee markets • Limited competition among coffee buyers at national and international levels • Lack of market research identifying bottlenecks and opportunities
Inefficient administrative and marketing capacities	• Limited access to effective business development services • Dual role as non-profit business development service (BDS) provider and for-profit enterprise (coffee trader) • Low ability and willingness-to-pay for business services
Providers of technical, business and financial services	
Services offered that do not respond effectively to the needs of the majority of actors along the value chain	• Lack of effective concepts, tools, and methodologies for rural enterprise development • Lack of market and entrepreneurial orientation, i.e, strong focus on production technologies, local value added and organizational issues rather than enterprise development along value chains
Low effective demand for services	• Low willingness and ability to pay for services by actors along the chain

Table 3. Major challenges for developing strategic networks along conventional HQ coffee value chains based in Nicaragua and Honduras

Challenges	Underlying causes
Small producers	
Insufficient volumes and quality throughout the growing season	• Inefficient production and post harvest technologies (hulling machines not adequately calibrated, over fermentation of green beans, inadequate drying conditions, etc.) • Limited access to effective technical, business and financial services • Logistical bottlenecks that result in fermentation of bean
Lack of price incentives to improve quality	• Trade based on volume (*latas*), not weight[6] (Honduras) • Information asymmetries between buyers and sellers • Exporters face limited markets for high-quality coffee
Opportunism by intermediaries (i.e., cheating)	• Asymmetric information on real-time prices (intermediaries are better informed and producers) • High transaction costs for obtaining market intelligence • Local market power by local and regional intermediaries
Lack of infrastructure for farm diversification	• Limited access to effective business development services • Un-enabling local and national political environment
Local and regional intermediaries	
Adverse business relations with producers	• Asymmetric information on quality (producers are better informed then intermediaries) • Difficulty to detect certain quality characteristics
Adverse business relations with exporters	• Limited competition among coffee buyers (exporters) • Market power exercised by major importers
Commercial exporters	
Difficulties to consolidate inter-business relations with production cooperatives, intermediaries, and importers	• Difficulties in managing foreign activities (language and cultural gap, quality and contracting requirements, etc.) • Weak organization of producer cooperatives with potential to supply high quality coffee • Opportunism by intermediaries resulting from asymmetric information on quality (intermediaries are better informed than exporters)
Restricted business contacts and distribution channels	• High transaction costs to acquire useful market information • Limited competition among major coffee importers
Providers of technical, business and financial services	
Service offer that does not respond effectively to the needs of the majority of actors	• Donor defined (i.e., supply-driven) service offer • Lack of concepts, methodologies and tools for rural enterprise development • High transactions costs and significant risks for lending financial services to small producers and intermediaries
Low effective demand for services	• Low willingness and ability to pay for services by actors along the chain

[6] Coffee beans grown at altitudes exceeding 800 meters tend to be harder and denser than beans grown at lower altitudes. As a result, high-altitude beans weigh approximately 12% more than low-altitude beans.

4. Opportunities for strategic network development along coffee value chains in Nicaragua and Honduras

Based on the challenges highlighted above and their associated underlying causes, it is possible to identify the opportunities for the development of strategic networks among conventional HQ and sustainable coffee value chains in Nicaragua and Honduras (Boxes 1 and 2).

Box 1. Opportunities for developing strategic networks along conventional HQ coffee value chains based in Nicaragua and Honduras

- Small producers effectively organize into first-level cooperatives and associations to upgrade production and post harvest technologies and obtain effective business and financial services.
- Business development service (BDS) providers invest in strengthening their ability to effectively meet the demand of exporters for business services related to the organization and for timely market information.
- Technical services providers increase their capacities to meet the demand of small-scale producers for services related to production and post-harvest management.
- Chain actors unite to form value chain working group with the dual purpose of building mural recognition of the needs, opportunities and constraints facing different supply chain actors and identifying specific strategies for value chain development.
- Public agencies and NGOs develop effective mechanisms for transmitting price signals for differentiated coffee products and key products for coffee diversification (fruits and vegetables).
- Public agencies and NGOs identify appropriate equipment and practices to protect and enhance coffee quality.

Box 2. Opportunities for consolidating strategic networks along the sustainable coffee value chains based in Nicaragua and Honduras

- First level cooperative and associations strengthen organization and administration capacities to effectively.
- Second level cooperatives and associations upgrade their business administration and marketing capacities to effectively meet the exigencies of highly demanding buyers.
- First and second level cooperatives and associations use modern means of communication and information, including the use of e-commerce.
- BDS providers acquire effective concepts, tools, and methodologies for rural enterprise development, provision of market information, and linking of actors along the chain.
- BDS providers and second-level cooperatives and associations identify and seek out alternative institutional arrangements for reducing transaction costs for diversifying marketing contacts and obtaining useful market intelligence.
- Public agencies and NGOs, in collaboration with alternative trade organization and enterprises, conduct research aimed at identifying bottlenecks and opportunities along the value chain.

References

Dolan, C., J. Humphrey and C. Harris-Pascal. 1999. "Horticultural Commodity Chains: The Impact of the UK Market on the African Fresh Vegetable Industry." IDS Working Paper 96, Institute for Development Studies, University of Sussex, UK

Donovan, J. 2003. "La cadena productiva del café en la Zona Fronteriza entre Nicaragua y Honduras," informe de consultora, CATIE, Turrialba, Costa Rica.

Fitter, R. and R. Kaplinsky. 2001. "Who gains from Product Rents as the Coffee Market Becomes More Differentiated? A Value Chain Analysis," IDS Bulletin Paper, May.

Gereffi, G. 1994. "The organization of buyer-driven global commodity chains: How US retailers shape overseas production networks," in G. Gereffi, and M. Korzeniewicz (Eds), *Commodity Chains and Global Capitalism*. Wesport, CT: Praeger, pp. 95-123.

Gibbon, P. 2001. "Upgrading Primary Production: A Global Commodity Chain Approach," *World Development*, 29(2): 345-363.

Hobbs, J., A. Cooney, and M. Fulton. 2000. "Value Chains in the Agri-Food Sector: What Are They? How do They Work? Are They for Me?" Centre for the Study of Cooperatives, University of Saskatchewan, September.

Humphrey, J. and H. Schmitz. 2003. "Chain Governance and Upgrading: Taking Stock," in H. Schmitz (ed), *Local Enterprise in the Global Economy: Issues of Governance and Upgrading*, Cheltenham, forthcoming.

Instituto Interamericano de Cooperación para la Agricultura (IICA). 2003. "Estudio de la Cadena Productiva de Café de Honduras," informe de consultaría, IICA, Coronado, Costa Rica.

Kaplinsky, R. and M. Morris. 2000. "A Handbook for Value Chain Research," prepared for IDRC, available on-line: http://www.ids.ac.uk/ids/global/pdfs/VchNov01.pdf

Mayoux, L. 2003. "Trickle-Down, Trickle-Up or Puddle? Participatory Value Chains Analysis for Pro-Poor Enterprise Development," consultancy report prepared for DIFID.

Mendoza, R. and J. Bastiaensen. 2003. "Fair Trade and the Coffee Crisis in the Nicaraguan Segovias." *Small Enterprise Development*, 14(2): 36-46.

Murillo, C., A. Majano and L. Rivera. 2003. "Construcción de Capacidades para una Agenda sobre Comercio para el Desarrollo Sostenible en América Latina," background paper prepared for UNEP Capacity Building Meeting on Environment, Trade and Sustainable Development for the Latin America and Caribbean Region. Mexico City, March.

Ponte, S. 2002. "The 'Latte Revolution'? Regulation, Markets and Consumption in the Global Coffee Chains," *World Development*, 30(7): 1099-1122.

Sturgeon, T. 2002. "Modular Production Networks: A New American Model of Industrial Organization" *Industrial and Corporate Change*, 11(3): 451-495.

Zehner, D. 2002. "An Economic Assessment of Fair Trade in Coffee," *Chazen Web Journal of International Business*, Fall, available on-line: http://www.gsb.Columbia.edu/chazenjournal