Beneficial Impacts of Ecolabeled Mexican Coffee:

Organic, Fair Trade, Rainforest Alliance, Bird Friendly

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Executive Summary

Mexico has been at the forefront of the development of ecolabels for coffee.

Coffee farmers in Mexico are at the mercy of commodity markets, and have to deal with a growing domination and concentration by large international companies. International trade houses and companies that are involved in both the import and export of green coffee have become bigger in the past 12 years.

There are three types of ecolabels for coffee: Certified Organic, Certified Fair Trade, and the category of Shade Grown, consisting of the Rainforest Alliance (formerly Eco-OK) and Bird Friendly ecolabels.

The most important goals of ecolabels are to:

- Provide an expert, objective assessment and verification of the environmental and/or social benefits of the product;
- Raise consumer awareness about these benefits; and
- Create a more transparent supply-chain, which recognizes farms and mills that produce coffee products under sustainable conditions.

All four of the above-mentioned certification programs are active in Mexico, with organic certification and Fair Trade demonstrating important current activity and strong growth potential for the future.

The environmental coffee certification movement has developed significantly over the past two decades. Research activity, concentrated during the 1980's and 1990's, investigated various conservation aspects of shade coffee production. It was found that a number of significant environmental benefits -- from natural resource conservation to biodiversity habitat -- were being provided by shade coffee farms. One of the most discussed findings was the importance of shade coffee as habitat for migratory birds and the converse lack of habitat provided by sun coffee plantations.

Mexico is considered the most ecologically diverse country in Latin America, and is referred to as a "megadiversity" country by conservationists.

A fundamental aspect of all four coffee certification programs is the direct interaction with producers, who are viewed as land managers. In this way, long-term environmental and social improvements can be implemented, and market incentives can be utilized to help the systems achieve economic viability.

There are currently 70,838 hectares of certified organic coffee under production and 28,371 producers involved. Certified organic is produced by approximately 4% of Mexico's coffee producers and 2% of the coffee cultivated area.

Fair Trade has certified 32 cooperatives, which have 3,409 members and an estimated 10,200 hectares of certified land.

Currently, one Mexican coffee producer (estate farm Santa Elena) is certified by Rainforest Alliance. Four producers/cooperatives are in the process of getting the Rainforest Alliance certificate.

One estate farm, Finca Las Cumbres with 450 hectares, and the cooperative ISMAM farm, Finca Belín, with 200 hectares, have been certified Bird Friendly.

The coffee certification programs in Mexico are working with one of the most important agricultural land use systems in the country. Shade coffee farms are providing valuable environmental benefits to the country, and maintaining an important balance in conserving natural resources and promoting biodiversity. The steady growth of certified coffee production, highlighted by the substantial growth of organic certification, indicates that other producers are adopting these techniques.

Ecolabels and eco-certification schemes work on the assumptions that consumers are concerned about environmental and social issues when buying products.

As soon as consumers actually convert ”concern” into purchasing behavior, then they must have the confidence that the purchased products are what they claim to be, and that is exactly one of the important functions of the ecolabel.

Market research shows that the potential market demand for ecolabeled, sustainable coffee in North America is strong, and that consumers are willing to pay a price premium for these coffees. A survey among U.S. importers found that the price premium paid for (certified) organic coffee from Mexico is between 25 to 77 cents per pound higher than the price paid for conventional coffee.

For producers, ecolabel certification schemes are fully voluntary.

Coffee farmers are not in the business of biodiversity or reducing chemical inputs. Farmers in Mexico make decisions like other rational human beings. Their decisions are based upon the ability to feed their children, to support their families and they will always choose production methods that yield the highest rates of return on investment.
Data shows that certified organic coffee production –after the stage of transition to organic- costs less than high-input conventional production. Savings can be substantial due to the reduced input of agro-chemicals, which can cost up to 35% of the farmer’s revenues per quintal of coffee produced.

The production of certified, ecolabeled coffees offers various potential benefits to the coffee producer: higher farm income, more stable employment possibilities for farm workers, enhanced community development, reduced health risk due to less use of agrochemicals, and risk-management through diversification of crops.

The revenue-generating capacity for producers/farmers of ecolabeled coffee is also demonstrated by a comparison between the developments of prices and premiums of conventional coffee versus certified coffee.

The prices offered in Mexico to producer/farmers for organic coffee were 45% higher in 2000 and 62.5% higher in 2001 versus the prices offered for conventional coffee.
The prices of Fair Trade coffees showed similar higher revenues for producers/farmers.
In 2000, organic coffee producers (certified and transitional) earned over $32.5 million.

The socio-economic benefits of ecolabeled coffees are also demonstrated by the case studies of various cooperatives/producer groups, like CEPCO and ISMAM.

The case study of CEPCO shows that certified organic CEPCO producers enjoy important economic benefits: highest sales price of the coffee (226% higher than conventional coffee) and a substantial higher yield than conventional producers. The case study of ISMAM shows that about 50% of all produced coffee is exported as Fair Trade. Of the US$1.26 base price per lb., about 65% is allocated to the farmer ($0.83), which is a substantial increase in income for the farmer.

The advantages of ecolabeled coffee can be summarized as follows:

1). ***Improved economic conditions:***
- Pre-harvest financing with guaranteed prices and/or differentials
- Improved infrastructure for housing and transportation

2). ***Investments in production and social infrastructure****, which can lead to:*
- Increased education and practice of sustainable farming methods
- reduced farmer risk through diversification of agricultural production

Chapter 1. Introducing Ecolabels

1.1 Structure of the Mexican Production Sector

Mexico has been at the forefront of the development of ecolabels for coffee.

Coffee was introduced in Mexico in the late 19th century. Its expansion went slower than in other countries, by 1970 coffee was grown on only 356,253 hectares. Between 1970 and the mid-1990s, the growth in coffee farming was explosive. The following table shows the dramatic increase in farm activity and the decrease in average farm size from 1970–2001.

Coffee Farming in Mexico: 1970-2001

	1970	1992	2001
Developed Coffee Area (ha)	356,253	761,899	703,341
Number Producers	97,716	282,593	401,221*
Average Farm Size (ha)	3.55	2.69	1.92*

*numbers are based on last census

Source : Bray, Sánchez, Murphy – Society and Natural Resources, 2002 Social dimensions of organic coffee production in Mexico and Armando Bartra, 2002 - "Virtudes económicas, sociales y ambientales del café certificado"

Between 1970 and 2001, average farm sizes declined by 46%. Of all coffee producers, 69% have less than 2 hectares and 60% are indigenous. This explains why poor and small indigenous producers dominate the Mexican coffee production. [1]

1.2 International Market for Coffee

Coffee farmers in Mexico are at the mercy of commodity markets and have to deal with a growing domination and concentration by large international companies.

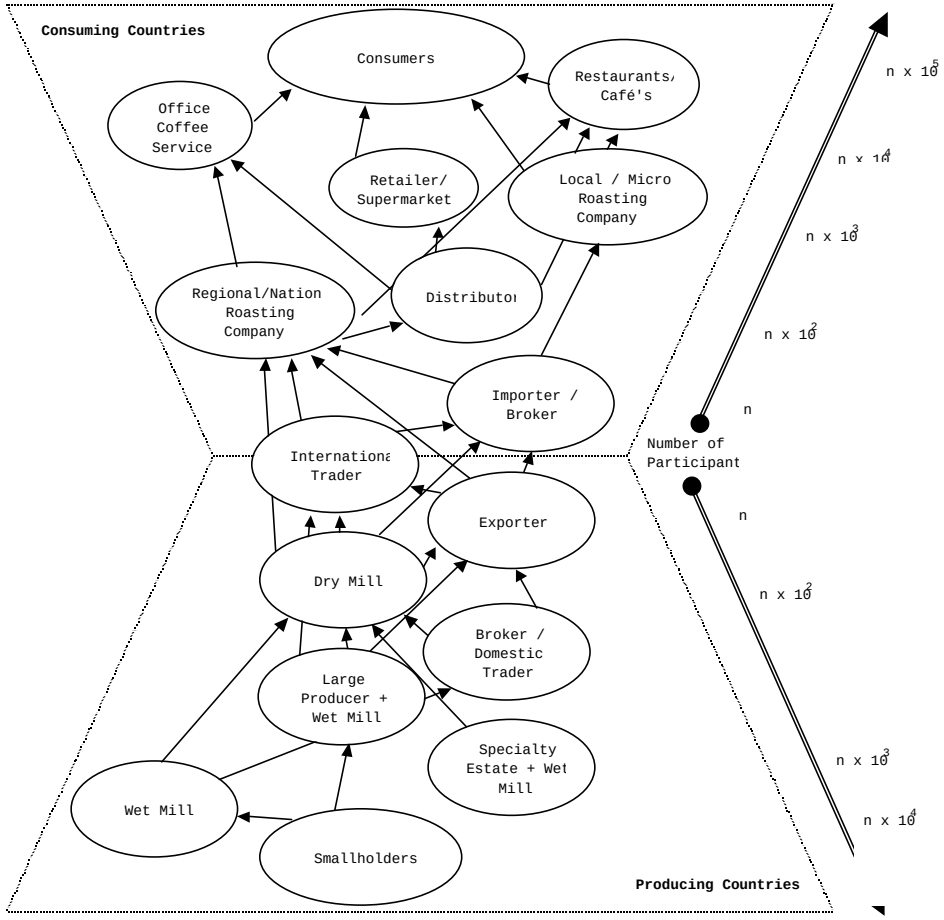
International trade houses and companies that are involved in both the import and export of green coffee have become bigger in the past 12 years.

In 1989, the largest six traders[2] were responsible for 35% of the global coffee trade; by 1994 their share had increased to more than 40%, and by 2001, the largest traders accounted for more than 50% of the international trade in green coffee.

[1] David Barton Bray, Jose Luís Plaza Sánchez, Ellen Contreras Murphy – Society and Natural Resources, 15:429-446, 2002. Social dimensions of organic coffee production in Mexico: lessons for eco-labeling initiatives.

[2] 1998 figures: Neumann/Rothfos 16%, Volcafe 13%, Cargill and Esteve combined 12%, Aron 5%, Man 4%

The described concentration of large exporters and roasters has created an oligopolistic market model. The market for coffee is driven by a limited group of participants. As a result, exporters -- often vertically forward integrated[3]-- and multi-national roasters can exert their power much easier than the smaller players in the producing country.



The Structure of the Global Coffee Marketing Chain

1.3 Ecolabels Explained

There are three types of ecolabels for coffee: Certified Organic, Certified Fair Trade, and the category of Shade Grown, consisting of the Rainforest Alliance (formerly Eco-OK) and Bird Friendly ecolabels.

The most important goals of ecolabels are to:[4]
1) Provide an expert, objective assessment through a protocol of verification of the environmental and/or social benefits of the product;

[3] The world's largest exporters are nowadays forward integrated into the consuming countries. They have become importers as well and in most cases, their infrastructure in the consuming country includes marketing, sales, quality inspection, logistics, and sometimes even warehousing.
[4] Inspired by "Common Goals of Schemes" – the Australian Ecolabel Program

2). Raise the awareness of consumers about these benefits, and encourage consumers to take environmental considerations into account when making purchasing decisions;
3). Provide market-based incentives to coffee producers to develop new products and processes that benefit social and environmental conditions in production countries;
4). Cause market changes that will ultimately result in decreased environmental impacts from consumer products; and
5). Create a more transparent coffee supply-chain, which recognizes farms and/or mills that produce coffee products under sustainable conditions.

All four of the mentioned certification programs are active in Mexico, with organic certification and Fair Trade demonstrating important current activity and strong growth potential for the future.

Certified Organic

Organic agriculture is an ecological production management system that promotes and enhances biodiversity, biological cycles and soil biological activity. It is based on minimal use of off-farm inputs and on management practices that restore, maintain and enhance ecological harmony.[5] "Certified Organic" means the item has been grown according to strict uniform standards that are verified by independent state or private organizations. Certification includes inspections of farm fields and processing facilities, detailed record keeping, and periodic testing of soil and water to ensure that growers and handlers are meeting the standards, which have been set.[6]

In Mexico, there are currently 70,838 hectares of certified organic coffee under production, and 28,371 producers involved. Certified organic is produced by approximately 4% of Mexico's coffee producers, and represents 2% of the coffee cultivated area.

Certified Fair Trade

The Fair Trade labeling program is a voluntary scheme of certification based upon the "Fairtrade Standards for Coffee" as defined by the Fairtrade Labeling Organizations (FLO) International. There are four basic elements of the Fair Trade scheme:

1. Farmers can sell their coffee at a fair price directly to democratically-run cooperatives, of which the farmers are members;
2. A floor price is guaranteed when world market prices are low (the current minimum price is set at $ 1.26/lb. for washed Arabica coffee);
3. Farmers receive advance pre-financing (credit) to help cover harvest costs; and
4. Long-term trading relationships are developed between importers and farmer cooperatives.

The Fair Trade model is specifically designed for smallholder coffee producers. The average smallholder in Mexico cultivates a farm of 3 to 4 hectares, and produces

[5] Excerpted from the definition of "organic" that the U.S. National Organic Standards Board adopted in April 1995.
[6] Source: Organic Trade Association Web site, www.ota.com/.

between 1,000 and 3,000 lbs. of green coffee per year. In addition, the farm relies principally on family labor, and will incidentally or seasonally hire workers.
32 cooperatives, comprised of 3,409 members and an estimated 10,200 hectares of land, have been Fair Trade certified.

Certified Bird Friendly
The Bird Friendly certification program was created after the 1st Sustainable Coffee Congress of the Smithsonian Migratory Bird Center (SMBC). The program is designed to promote sustainable agriculture, with an emphasis on protecting habitat for migratory birds. In Mexico, one estate farm, Finca Las Cumbres, with 450 hectares, and the cooperative ISMAM's farm, Finca Belín, with 200 hectares, have been certified as Bird Friendly.

Certified Rainforest Alliance (formerly Eco-OK)
The Rainforest Alliance certification program is based on a comprehensive sustainable model that incorporates environmental and social criteria. In Mexico, one coffee producer (estate farm, Santa Elena) has been certified, and four producers are in the process of getting the Rainforest Alliance certification.

Chapter 2. Ecolabels and Sustainability

2.1 Shade versus Sun

The environmental coffee certification movement has developed significantly over the past two decades. Research activity, concentrated during the 1980s and 1990s, investigated various conservation aspects of shade coffee production. It was found that a number of significant environmental benefits -- from natural resource conservation to biodiversity habitat -- were being provided by shade coffee farms. One of the most discussed findings was the importance of shade coffee as habitat for migratory birds and the converse lack of habitat provided by sun coffee plantations.

Studies pioneered by Fuentes-Flores (1979) and Nolasco (1985), and further developed by Miguel and Toledo (1996), characterized five different coffee production systems present in Mexico according to their vegetative complexity, height of arboreal strata, and variety of components.

Region (Number of municipalities)	*Total[a] area (ha)*	*Rustic*	*Traditional polyculture*	*Commercial polyculture*	*Shaded monoculture*	*Full-sun monoculture*
Total (124)	367,988	48,412	96,931	35,084	152,891	41,972
Percentage (%)	100	13	26	10	42	11

a. The total is from the original source and does not sum properly, possibly due to a typesetting error.
Source: Moguel & Toledo (1999).

2.2 Technification

Beginning in the 1950s, farmers were encouraged to grow coffee in full sun to increase yields and reduce fungal infection (primarily in response to the spread of coffee leaf rust, *Hemileia vastatrix*, known as *la roya* in Spanish). (Sorby 2001) The sun coffee technique did not begin to expand rapidly until the 1970s. (Perfecto et al.1996) In Mexico, the Mexican Coffee Institute (Inmecafe, which no longer operates) promoted a "technical package" that was centered on full or monoculture shade systems, pesticides and herbicides for pest and weed control, and synthetic fertilizers. (Gomez-Pompa 1996) This had a significant impact on land use patterns in the coffee industry in Latin America, and by 1996 it was reported that the land under modern, reduced-shade coffee systems ranged from 17% in Mexico to 40% in Costa Rica and 69% in Colombia. (Rice, Ward 1996)

On account of these changes, the debate over sun versus shade coffee became one of the key discussion points in defining environmentally friendly coffee, and led to the development of the Organic, Rainforest Alliance (formerly Eco-OK) and Bird Friendly ecolabels.

2.3 Mexico: Ecologically Diverse

Mexico is considered the most ecologically diverse country in Latin America, and is referred to as a "megadiversity" country by conservationists. Studies on coffee plantations have found significantly high levels of flora and fauna diversity; levels often surpassed only in undisturbed tropical forests.

Biodiversity conservation is one of the primary objectives of the environmental coffee movement. Due to its high biodiversity levels, Mexico was an excellent testing ground for promoting biodiversity conservation through landscape management. Mexico has achieved the status of "megadiversity" country, is listed as 12th in number of species and 1st in number of reptiles identified, and is considered the most ecologically diverse country within Latin America and the Caribbean. Located inside of its boundaries are 5 distinct ecosystems, 9 of the 11 habitat types, and 51 of the 191 eco-regions identified internationally. (Benítez Díaz and González 1997)

Studies have shown that this biodiversity is also reflected on Mexican shaded coffee plantations. (See Appendix 1.)

2.4 Certification and its Impact on Land Use

A fundamental aspect of all four coffee certification programs is the direct interaction with producers, who are viewed as land managers. Strategies are developed and implemented to promote and utilize agricultural practices that have positive social and environmental benefits for the environment. In this way, long-term environmental and social improvements can be implemented and market incentives can be utilized to help the systems achieve economic viability. In order for these programs to increase their impact and allow this process to continue to have a positive influence on land management practices, every effort must be made to support their growth, both in producing countries and in international markets.

2.4.1 Organic Land Use

Of the four programs, the organic strategy has had the longest history and influence, demonstrating an especially strong growth in Mexico.

Organic coffee farming has established itself not only as an important commercial activity in Mexico, but also as a significant social and political unifying force. (Yussefi, 2002) In the coffee producing regions, the coffee cooperatives, many of which were formed under post-revolution land reform policies, have taken on the function of organizing producers and the communities and promoting social and environmental programs in their areas.

2.4.2 Fair Trade Land Use

In 1989, the first 3 coffee cooperatives in Mexico were certified as Fair Trade. There are now 32 Mexican cooperatives on the FLO registry, representing 3,400 producers. The roots of the Fair Trade program are in the promotion of economic justice and democratic self-empowerment. For this reason, Fair Trade data is measured by the number of certified cooperatives and associations who have met certification criteria rather than by

production area. But, an estimate of production area can be calculated by using an average farm size of 3 hectares per cooperative member, which when multiplied by the number of members, gives an estimated total of 10,200 ha under Fair Trade certification in Mexico.

2.4.3 Rainforest Alliance (formerly Eco-OK) Land Use

In Mexico, one estate farm, Santa Elena with 267 ha, has been certified (Rainforest Alliance Web page, www.rainforestalliance.org). Four farms are being certified.[7]

The following table provides an overview of the best practices that have been defined by Rainforest Alliance.

Rainforest Alliance (formerly Eco-OK) Best Practices

1. Ecosystem Conservation	6. Integrated Waste Management
2. Wildlife Conservation	7. Conservation of Water Resources
3. Fair and Correct Treatment of Workers	8. Soil Conservation
4. Community Relations	9. Planning & Monitoring
5. Integrated Crop Management	

Source : Rainforest Alliance, 2002

2.4.4 Bird Friendly Land Use

In Mexico, one estate farm, Finca Las Cumbres, with 450 hectares, and the cooperative ISMAM's farm, Finca Belín, with 200 hectares, have been certified as Bird Friendly.

2.5 Conclusion

While most Fair Trade coffee from Mexico is organically grown, and most organic coffee is shade grown, neither of these statements is true the other way around.[8] Most organic coffee is shade-grown because the shade itself can produce some important nutrients that provide organic fertilizer to the soil. However, not all shade-grown coffee is organic or Fair Trade.

The coffee certification programs in Mexico are working with one of the most important agricultural land use systems in the country. Shade coffee farms are providing valuable environmental benefits to the country and maintaining an important balance in conserving natural resources and promoting biodiversity. The steady growth of certified coffee production, highlighted by the substantial growth of organic certification, indicates that other producers are adopting these techniques. The incentives that certification can provide to producers could be critical in their decision and ability to continue producing under these environmentally friendly management techniques. In this way, certified coffee programs are playing an important role in promoting sustainable agriculture and conversation efforts, both nationally and internationally.

[7] Source: Rainforest Alliance, November 2002
[8] North American Commission on Environmental Cooperation (CEC), 2001. Backgrounder on the Potential Market for Sustainable Coffee in North America

Chapter 3. Ecolabels: Voluntary, Market-driven Certification Schemes

Ecolabels and eco-certification schemes work on the assumptions that consumers are concerned about environmental and social issues when buying products.
As soon as consumers actually convert 'concern' into purchasing behavior, then they must have the confidence that the purchased products are what they claim to be, and that is exactly one of the important functions of ecolabels. They assure the important elements of confidence and trust that are needed for the demanded price premium of the coffee.

3.1 Market Research

3.1.1 Consumer Research

Market research[9] has shown that the potential market demand for sustainable, shade grown, coffee in North America is strong. The study showed that consumers are willing to pay a modest price premium for shade grown coffee: 42 percent of consumers in Canada, 36 percent of consumers in Mexico, and 22 percent of consumers in the USA expressed willingness to pay an additional US$1 per pound for Mexican shade grown coffee.

Another market survey in 2001 investigated the (potential) demand for sustainable coffee.[10] The goal of the survey was primarily to determine the (potential) demand for sustainable coffee and to investigate the important market trends.

Some results:

- 75% of surveyed firms felt that price premiums for organic, shade and fair trade were reasonable;
- A large majority believed that certification is important for their sustainable coffee business;
- 90% of all companies reported that sustainable coffee sales either increased or remained the same during last year; and
- Total estimated global retail market value for sustainable coffee was approximately US$ 565 million.

[9] CEC, 1999
[10] Sustainable Coffee Survey of the North American Specialty Coffee Industry - July 2001 - Daniele Giovannucci

3.1.2 U.S. Importer Survey

From March through June 2001, a telephone survey[11] was conducted among coffee importers. Of the 76 firms interviewed, 13 were found to import organic coffee. 92% of these importers indicated that Mexico was a major source of organic coffee. The premium that is paid by importers to suppliers for organic coffee is displayed in the following table:

Organic coffee premiums paid above conventional coffee prices

Country	Premium (US cents/kg)
Mexico	44 to 77
Guatemala	77 to 110
Colombia	77 to 110
Costa Rica	77 to 110
Brazil	22 to 44
El Salvador	22 to 44
Peru	11 to 33

Source : Rodriguez & Epperson, 2001. Survey of U.S. specialty coffee importer/roaster companies

A follow-up survey with one large importer of certified organic coffee from Mexico substantially confirmed the information in the above table.
The interviewed importer provided the following data:[12]

Survey US-Importer: purchases from Mexico

	Green Coffee Imports 2000 (lbs x 1000)	Green Coffee Imports 2001 (lbs x 1000)	Green Coffee Imports Average Price Paid 2001 / US$ per lb.
Non-certified			
conventional	2,244	2,112	US$0.20 differential over NY-C
organic	693	957	
Certified			
fair trade		307	US$ 1.41
organic		2,112	US$0.25 to $0.40 over NY-C

The data in the above table demonstrate that certified coffees bring substantial added value in the transaction process of green coffee beans.

[11] The Latin American Organic Coffee Industry: US Market Inroads – Sept 2001 – Danilo Rodriguez and James E. Epperson
[12] Importer provided data on the condition that the name of the company is not mentioned.

This additional value has an even greater impact if the importer purchases the coffee directly from the cooperative. The (anonymous) U.S. importer cited above purchased 50% of his Mexican imports from a large cooperative.

3.2 Transition to Ecolabel Production: Voluntary Process

For producers, ecolabeling certification schemes are fully voluntary.

For example, if a coffee farmer in Mexico wants to convert from conventional coffee production --with chemical inputs-- to fully organic production, then several key-questions must be answered:[13]

- Are the production criteria achievable and affordable?
- Is there a comparable return on investment for organic production, compared to conventional production?
- How can the production loss during the period of conversion be overcome?
- Is the potential price premium high enough to cover the possible lower yields?

Coffee farmers are not in the business of biodiversity or reducing chemical inputs. Farmers in Mexico make decisions like other rational human beings. Their decisions are based upon the ability to feed their children, and support their families. In general economic terms, they will always choose production methods that yield the highest rates of return on investment.

The following table presents the costs associated with the production of three different production systems used in Mexico.[14] The table shows that certified organic coffee production costs less than high-input conventional production. (See “Conventional Coffee, More Intensive Technology” on line two of table on next page.)

[13] Background Note for Participating Experts: Experts Workshop on Shade-Grown Coffee, 2000 –CEC – Oaxaca, Mexico

[14] Source: Kristina Sorby, June 2002 - Background paper to World Bank Agricultural Technology

Cost of production per hectare in the different production systems studied in Mexico (US$)

Production System	Labor Cost*	Cost of Inputs**	Cost of Processing / Transport	Cost of Certification	Total Production Cost
Certified Organic Coffee	522	17	118	23	680
Conventional Coffee (more intensive technology)	507	135	103	-	745
Conventional Coffee (low-input technology)	361	13	79	-	453

*the calculations take into account differences in labor needs during harvest, transpo application of agrochemicals (in case of conventional high-input system).
**includes chemical inputs (in case of conventional high-input system) and harvest too
Source: Damiani (2001). Based on information provided by Banrural.

It must be noted that for many smallholder-farmers in Mexico the cost of transition to environmentally sustainable production is lower than in other countries. Most small-scale farmers in Mexico already grow coffee under a canopy of shade trees, and an estimated 65% of farmers are organic by default because there is no money to pay for agro-chemicals. As a result, the changes that are required to comply with the requirements of Certified Organic, Rainforest Alliance (formerly Eco-OK) and Bird Friendly are in most cases modest. However, it must be noted that, in order to become Certified Organic, the farm has to complete a 3-year cycle of transition, even when no chemicals had been applied in the past.

The cost to become certified can be costly by itself. OCIA, the largest organic certification organization in the world, charges a yearly fee of $250 plus the cost of inspection ($400-$500) per inspection visit. Additionally, there is a “privilege user fee” of 0.5% of the sale price for the use of the organic label. An average certified cooperative has at least 200 smallholder members. This makes the fee per farmer very modest.

Chapter 4. Socio-Economic Benefits of Ecolabels in Mexico

The success of organized organic coffee production in Mexico depends upon the continuing interaction between coffee-related institutions, environmental NGO's and the historic existence of cooperatives in the country.[15]

The production of certified, ecolabeled coffees offers various potential benefits to coffee producers:[16]

- Higher farm income;
- More stable employment possibilities for farm workers;
- Enhanced community development;
- Reduced health risk due to less use of agrochemicals; and
- Risk-management through diversification of crops.[17]

4.1 Ecolabels: Economic Benefits for Producers through Price-Premiums

The price-premium for ecolabeled coffee serves a number of purposes.

In the case of Certified Organic, Rainforest Alliance and Bird Friendly, the premium will help the farmer to make the conversion from conventional to sustainable agriculture and –- to a certain extent-- the premium will improve the living conditions of the farmers.

In the case of Certified Fair Trade, the price that farmers receive reflects true costs of production and a minimal living wage for the farmer.

The following table shows that total certified area (including area in transition) equaled 70,838 ha in 2000, which was equivalent to 9.87% of conventional coffee production in Mexico. The table also gives an indication of the significant income producing ability of organic coffee, which was over $32.5 million in 2000.

Mexico: Area, production, income earned 2000

Product	*Area (ha)*			*Production*	*Income Generated*
	Total	*Organic*	*Transition*	*(t)*	*(US$)*
Café	70,838.09	49,512.05	21,326.04	47,461.52	32,560,207.52

Source: Gómez, Schwentesius, Gómez Tovar, 2001

These increased revenues from certification have been essential in the cooperatives' ability, to not only strengthen their businesses, but also to implement environmental and social programs in their communities. (ISMAM, CEPCO case studies)

[15] Bray, Sánchez, Murphy –2002 refer to the substantial amount of preexisting "social capital accumulation" in the Mexican countryside

[16] Source: Kristina Sorby, June 2002 - Background paper to World Bank Agricultural Technology

[17] The farmer can plant shade trees that produce specific fruits (bananas, mangos, oranges, etc.).

The following table also illustrates the revenue-generating capacity of ecolabeled coffee.

Price and/or premium development from 1999 - 2001 (US$)

Production system	**1999**	**2000**	**2001**
Organic Premiums			
Ex. Guatemala local premiums	-	N/A (30% overprice)	$8.2/quintal** (18% overprice*)
Ex Mexico local premiums	-	$28/quintal** (45% overprice*)	$26/quintal** (62.5% overprice*)
Shade-grown			
Price Ex. El Triunfo, Chiapas, Mexico (Shade grown, Organic and Fair Trade Certified)			$138/100lb (March 2002) (108% overprice***)
Fair Trade Prices *(F.O.B.)*			
Washed arabica; Central America, Mexico, Africa, Asia	$126/100lb (24% overprice)	$126/100lb (76% overprice)	$126/100lb (111% overprice)
Certified Organic Washed Arabica; Central America, Mexico, Africa, Asia	$141/100lb (39% overprice)	$141/100lb (97% overprice)	$141/100lb (137% overprice)
Average global coffee price (NY)			
Arabica Robusta	$101.54/100lb $67.64/100lb	$71.43/100 lb $35.06/100lb	$ 59.50/100lb $25.05/100lb

N/A= Exact amount not available *Overprice compared to local conventional prices.
**1 quintal = approx. 100lb. ***March 2002, Global coffee price, NY: US$66.38/100lb

Source : Kristina Sorby, June 2002 - Background paper to Worldbank Agricultural Technology Note 30, "Toward more sustainable coffee" based on these **sources** : Damiani, (2002); Damiani, (2001); Fair Trade Labelling Org. Int.(2002); International Coffee Organization (2002)

The following case studies succinctly describe some of the socio-economic impacts that ecolabels have had on some cooperatives and their producer-members in Mexico.

4.2 CEPCO (Oaxacan State Coffee Producers Network)

Core Activity: Farming and export of conventional, certified organic and Fair Trade coffee.

History: CEPCO was founded in 1989 in the midst of a severe crisis in Mexico's coffee industry. CEPCO is Mexico's largest association of small-scale coffee producers, and it was formed through the efforts of small coffee producers from community and regional organizations throughout the state of Oaxaca. They created CEPCO to bypass local middlemen and to export coffee directly to importers and roasters.

Membership: The membership has grown to 17,000 farmers and 46 producer organizations in 64 municipalities. The groups are dispersed and the average production is four quintals of coffee per family/member. The organization has around 6,000 of its members certified as organic coffee farmers (around 2,500 of these have "in transition" status). The remainder of the coffee is sold as specialty coffee, some as Fair Trade and most in conventional markets.

Appendix 2. contains an extensive case study by Armando Bartra about the economic benefits of certified coffee produced by CEPCO.

Fair Trade Income: The transition from conventional coffee production to certified organic and/or certified organic/Fair Trade proved to be successful for CEPCO members. The first Fair Trade relationships developed with the emergence of the Max Havelaar label in The Netherlands.

The following table shows the trend in sales of certified Fair Trade coffee:

Cepco: sales of certified Fair Trade Coffee

crop year:	95/96	96/97	97/98	98/99	99/00	00/01	01/02
Organic (qq)	0	668	2550	4854	4728	6546	12942
Conventional (qq)	1056	3300	330	930	1860	330	1920
Total (qq)	1056	3968	2880	5784	6588	6876	14862
Total (US$ revenue)*	$133,056	$509,988	$401,130	$801,594	$901,008	$964,566	$2,066,742

*sales price Fair Trade per 100 lbs: US$126.= and organic Fair Trade US$141.=

Average Farmer Income: The following table shows average farmer income; from conventional production to certified organic.[18] The table also demonstrates that certified organic CEPCO-producers enjoy various advantages, including:

- Highest sales price of the coffee ($107.20 per quintal) and
- Highest yield (10 quintales per hectare)

[18] Armando Bartra, 2002 - "Virtudes económicas, sociales y ambientales del café certificado." Numbers are for the crop year 2000/2001.

Cepco: Comparison of Income for Conventional and Certified Coffee Farmers
(in US$; conversion rate US$1 = 10 Mex. pesos)

Type Production	Average Revenue per qq*	Average Cost per qq*	Net Income per qq	Average Production per ha. (qq)	Net Income per ha.
Conventional *non-member CEPCO*	$28.7	$55.0	-$26.3	3	-$78.7
Conventional *member CEPCO*	$32.8	$55.0	-$22.2	3	-$66.6
Transitional Organic	$40.6	$71.5	-$30.9	5	-$154.5
Organic Certified	$107.2	$57.2	$50.0	10	$500.0

(continuation of table above)

Type Production	State Subsidies per ha.	Total Income per ha.	Average Size farm (ha)	Total Net Farmer Income
Conventional *non-member CEPCO*	$150.0	$71.3	2	$142.60
Conventional *member CEPCO*	$150.0	$83.4	2	$166.80
Transitional Organic	$190.0	$35.5	3	$106.50
Organic Certified	$290.0	$790.0	3	**$2,370.00**

* qq: 1 quintal = about 100 lbs of green coffee. **calculation of cost per quintal includes labor time for the maintenance of the farm, the picking and post harvest handling. Labor time is calculated at the minimum cost level of US$5 per day per worker.

4.3 ISMAM (Indigenas de la Sierra Madre de Motozintla)

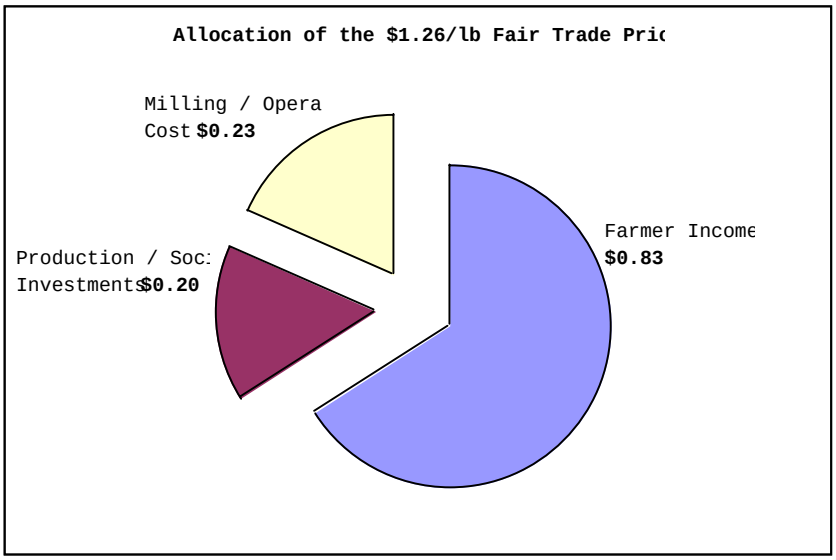
Core Activity: Farming and export of certified organic and Fair Trade coffee.

History: ISMAM was established in 1985 by smallholder coffee growers to meet problems of low productivity, poor marketing conditions and extreme poverty of farm families. By adopting organic techniques and improving quality, the cooperative was able to overcome soil degradation and low yields and move into a privileged specialty market that rewarded their extra efforts towards an ecologically sound production. Besides expanding their business, part of ISMAM's profits are returned to regional committees of the coop for investment in social works. In 1995, ISMAM received the National Agro-Export prize from Mexico's President.

Annual production: 72,000 quintales, or 3,27 million kilograms, of green coffee. Of this production, 50% is exported as Fair Trade/Organic, and 50% is certified organic/transitional certified organic.[19]

[19] Source: Interviews with representatives of ISMAM, 2002.

Allocation of the $1.26/lb Fair Trade price: $0.83 farmer income; $0.20 production and social investments; and $0.23 milling and operating cost.[20]



Source: Transfair USA, 2002

Objectives and Purposes:
ISMAM began with three, major objectives:
- To reverse soil degradation and falling productivity;
- To achieve direct marketing opportunities by circumventing excessive intermediaries; and
- To improve prices received for members' coffee.

In all of these areas, ISMAM has been highly successful. In addition, it has evolved into an effective and strong organization, empowering smallholder farm families.

Benefits of Certified Fair Trade and Certified Organic Ecolabels:
Production and Social Investments:
- Education of more than 1000 members about sustainable farming;
- Practicing organic farming on more than 24,000 acres of land;
- At least 3 million pounds of pulp are recycled annually[21];
- Farmer exchange programs and publication of a handbook on organic farming; and
- Diversification of agricultural production.

Improved Economic Conditions:
- Guaranteed prices before the harvest;
- Pre-harvest financing;
- Improvement of housing;
- Improved transportation by purchase of trucks; and
- Less migration through continuing support to 8,000 family members.[22]

[20] Source: Transfair USA and interviews.
[21] Source: Interviews.
[22] Source: Interviews.

4.4 Producers Organization Uníon de Ejidos La Selva[23]

La Selva began exploring organic coffee production with a grant from the Inter-American Foundation (IAF). La Selva is located in the southwestern Lacandon Rainforest, in the buffer zone of the Montes Azules Biosphere Reserve, which was established in 1978 with an area of 331,200 hectares.

Most of the farmers are indigenous (67% Tojolobals, 20% Tzotzil and 13% mestizo). Education levels are low (35% illiteracy). By 1997, the project had been extended to 1,304 families in 57 communities with organic coffee production in an area of 1287 hectares.

The following table shows the results of the program on actual received coffee prices, for certified organic coffee realized by La Selva producers.

Average Coffee Prices (US$ / lb) to Producers for Organic and Conventional Coffee by La Selva and Conventional Coffee by Intermediairies in Program Region, 1992-1996

	1992-1993	Increase % from conventional	1993-1994	Increase % from conventional	1994-1995	Increase % from conventional	1995-1996	Increase % from conventional
Conventional coffee intermediairy price	0.41		0.5		1.16		0.78	
Conventional coffee La Selva price	0.51	24%	0.51	2%	1.2	3%	0.81	4%
Organic coffee La Selva price	0.58	**41%**	0.57	**14%**	1.32	**14%**	0.93	**19%**

Environmental benefits:
- o Elimination of agrochemicals;
- o Local production of organic fertilizers; and
- o Improvements in plant health.

Socio-economic benefits:[24]
- o Additional income for farmers;
- o Increases in yield;
- o Forward integration of process made farmers owners of dry mill; and
- o Better access to export market; lower dependence on intermediaries.

[23] All data in this section from Bray, Sánchez, Murphy –2002.
[24] Benefits were measured in a series of focus group sessions, involving 147 producers.

4.5 Additional data from cooperatives

In 2001, the Australian National University published Sasha Leigh Courville's Ph.D. thesis. It contained extensive research into green-to-roasted coffee supply lines, and included several case studies of producer groups in Mexico.[25]

Producer Organization "UCl Cien Años" - Case study 1998

The community of Pluma Hildalgo received a much higher price ($2.28 per kg.) for parchment coffee than the community of La Merced ($1.85 per kg.).
Prime reasons for the higher price: Pluma Hidalgo coffee was higher quality and was certified organic, while La Merced was transitional organic.

CEPCO (Oaxaca, Mexico) - Case Study 1998

The received price levels and revenues by CEPCO members showed high differentials for certified coffees.

Average Prices Received by CEPCO Producers (USD/kg parchment)

Feb/Mar '98:	Apr/May '98:	June '98
Organic: $ 2.90	Organic: $2.32	Organic: $1.85
Conventional: $2.67	Conventional: $2.09	Conventional: $1.62

Source : Sasha Leigh Courville, June 2001 - Production to Consumption

Average Sales Revenue per CEPCO Producer (US$)

Feb/Mar '98:	Apr/May '98:	June '98
Organic: $ 2,084	Organic: $1,668	Organic: $1,330
Conventional: $676	Conventional: $529	Conventional: $409

Source : Sasha Leigh Courville, June 2001 - Production to Consumption

[25] Sasha Leigh Courville, 2001 – "Production to Consumption - Not Just Trade: Steps Toward Incorporating Social and Ecological Costs into Trade. Lessons learned from 'Better' Case Studies of Coffee Production-to-Consumption Systems"

Conclusions

Ecolabels can be the key to a more transparent supply chain of green coffee.

Smallholder-farmers, who constitute the majority of coffee producers, are at the base of this supply chain. Besides the higher potential price for the coffee, the process of certification, and the certificate of the ecolabel itself, give producers the following important benefits:

- Most certified coffee producers in Mexico are organized in cooperatives, which enjoy a certain degree of organizational consolidation with specific efficiencies, like better access to the marketplace (importers and/or roasters) and specific facilities like affordable pre-financing before the harvest of the coffee; and
- The level of organization also increases the negotiation capacity of members in the national and international marketplace.

The production of certified, ecolabeled coffee offers various additional benefits to coffee producers: more stable employment possibilities for farm workers, enhanced community development, reduced health risk due to less use of agrochemicals and risk-management through diversification of crops.

The four certification programs (i.e., organic, Fair Trade, Rainforest Alliance, and Bird Friendly) proactively support change in the coffee industry, by creating value for environmental and social factors in coffee production.

These certification programs provide a structure, which involves the direct participation of producers, scientists, government, and private institutions.

Through the use of the certification seal, the certification programs provide important information to consumers about the effects of sustainable coffee production, which allows them to participate in these conservation efforts through their purchasing decisions.

Certified organic coffee production can be a very important factor in changing the agricultural coffee production system towards a more sustainable future. Despite the high entry cost, it can permanently create important alternatives for coffee producers who normally are at the mercy of intermediaries and coffee exporters.

The fact that more than 65% of Fair Trade certified coffee from Mexico is also certified organic, supports the concept of Fair Trade in Mexico. Besides the social benefit, these coffees enjoy coffee-specific benefits, which will favor customer loyalty over the longer term.

With the ongoing success of certified organic and certified Fair Trade ecolabels, the certification programs in Mexico serve as the leading examples for other coffee-producing nations in the world.

From the producer's perspective, ecolabel certification schemes are fully voluntary programs. The decision to apply for certification is always taken by the producer, who -– as a rational human being-- sees a market opportunity with the certified ecolabeled

coffee. At the same time, ecolabels differentiate the supply of coffee products in the marketplace, and provide a wider range of choices for consumers.

Market research has shown that ecolabels satisfy current needs and expectations of consumers, who then complete the circle by buying the certified products.

Last, but not least, it is important that more extensive industry studies be conducted regarding the socio-economic benefits of ecolabels in Mexico and beyond. These benefits are currently demonstrated only on a case-by-case basis.

From an environmental point of view, benefits of ecolabels can be deduced from the well-documented impact of shade grown and organic coffee.

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