INTRODUCTION

The recent drop in Arabica coffee prices harmed growers throughout southern Mexico, where farmers had already faced years of reduced government support to the agricultural sector. The crisis threatened not only coffee producers but also the environment, as some growers chose to abandon their plots or convert their land to less sustainable uses. Some growers have responded by emigrating from Mexican coffee regions. Others have attempted to differentiate their coffee by certifying it as environmentally sustainable, organic, and/or Fair Trade, or by selling it in other high-quality niche markets. Differentiation may return higher prices to producers, utilize more labor, and require producers to be organized into local cooperatives, and would thus seem likely to deter migration. With regard to Fair Trade-organic coffee in particular, case studies suggest that producers selling to this market face less pressure to migrate (Taylor 2002, Lyon 2002, Aranda Bezaury and Morales 2002, Pérezgrovas Garza and Cervantes Trejo 2002, Martinez 2002), a hypothesis that increasingly appears in Fair Trade marketing literature.

Investigating the linkages between coffee production and migration in southern Mexico should illuminate the potential for certification programs like Fair Trade and organic to diminish migration pressures. Economic development in Latin American sending regions has consistently been cited as a necessary condition for reducing migration pressure (Díaz Briquets and Weintraub 1991, Cornelius 2002). However, there has been little migration research in these coffee areas and almost no research on the links between coffee prices, migration, and certification.

This paper is a first effort to examine these relationships in detail, drawing on a case study conducted in a high-migration coffee community of Oaxaca. Although international migration is
not new to the community, its recent acceleration is linked at least in part to low coffee prices. Remittances from migrants help finance coffee production in the community, but migration simultaneously engenders transformations that serve to decrease the economic, social, and cultural viability of coffee production—including certified coffee production—in the community and in the region at large. Most problematically, migration raises the opportunity cost of labor and hence raises local wages by draining human capital from the region. In this sense, growers who migrate to the United States, in part to provide operating capital for their farms, ultimately undermine coffee production by raising costs. Our findings thus raise doubts about the medium-term sustainability of the Fair Trade-organic coffee model in the face of international migration.

MEXICAN COFFEE

The coffee industry employs some three million people in 12 Mexican states. The majority reside in Chiapas, Oaxaca, and Veracruz (Porter 2000). Coffee growers are small-scale (70% of producers have less than 2 hectares), geographically remote, and largely indigenous (an estimated 80% of Mexican coffee land is farmed by indigenous producers). Consequently, the coffee-producing zones in Mexico coincide exactly with a map of extreme poverty (Aranda Bezaury 2003; Aranda Bezaury and Morales 2002; Fox 1994).

Mexican coffee growers have been affected by four important transformations: (1) structural changes in the world coffee market; (2) liberalization and the withdrawal of the state from active intervention in Mexican agriculture; (3) the compensatory development of Fair Trade, organic, and other differentiated coffee systems; and (4) increasing migration from Mexico to the US, a cumulative process that presents new opportunities and challenges to all regions.
Changes in the world coffee market

Coffee growers have been exposed to increasing price fluctuations since 1989, when the quota component of the International Coffee Agreement (ICA) was dissolved (see Linton, “A Niche for Sustainability?” this volume). When prices plummeted from their 1997 peak to their lowest levels in more than 30 years in 2002, however, the livelihoods of an estimated 25 million coffee-producing families in 85 Latin American, Asian, and African countries were put at risk (Bacon 2005). Although coffee prices started rebounding again beginning in late 2004, they are still low compared to historical prices (ICO 2007).

Changes in the Mexican economy

In Mexico, growers have faced the added hardship of reduced government support for agriculture. Over the course of the past two decades, the Mexican government has adopted an array of legal, economic, and institutional reforms geared towards the ‘modernization’ and international integration of the agricultural sector. The ‘Reform of the Countryside’ program launched by the administration of President Carlos Salinas de Gortari in 1989 was aimed at opening Mexican agriculture to international markets and decreasing State regulation of the agricultural sector. The trucking industry was deregulated in 1989, fruit and vegetable export quotas were eliminated in 1990, free extension services were halted, agricultural research was cut back, parastatal firms were largely eliminated or privatized (e.g. sugar, tobacco, coffee, grains, oils, powdered milk, fertilizers, seeds), input price subsidies (e.g. electricity and fuel) were progressively reduced, irrigation districts were turned over to the users, crop price supports to producers of staples were narrowed, and subsidized credit and insurance programs were slashed. These reforms were further institutionalized in 1994, with the implementation of the North American Free Trade Agreement (NAFTA). NAFTA and subsequent trade agreements
have progressively opened Mexico’s agricultural sector to foreign competition and led to a decline in the real prices of basic grains and oilseeds (Yúnez and Barceinas 2002, Myhre 1998).

NAFTA’s implementation was therefore anticipated by the dissolution of various institutions that had traditionally offered small farmers, including coffee growers, basic services. The government parastatal, Instituto Mexicano del Café (INMECAFE), was created in 1958 to regulate the market and provide technical assistance, credit, and research. In the early 1980s, INMECAFE purchased 47% of Mexican coffee, from two-thirds of the country’s producers (Bray et al 2002) and offered smallholders at least minimal protection from the vagaries of market competition. It nevertheless met the same fate as other state agencies that were viewed as inefficient or inconsistent with the neoliberal government’s effort to ‘modernize’ the Mexican countryside.

Beginning in 1989, INMECAFE’s withdrawal created both opportunities and problems for small producers. On the one hand, it opened space for independent action by cooperatives, as well as joint action through state-level or national-level organizations that filled the void. On the other hand, it deprived smallholders of financial, technical, and marketing services and left them particularly vulnerable to the price fluctuations engendered by the dissolution of the ICA’s quota system (Raynolds 2002).

Product differentiation, certification, and organization

Coffee growers, consumers, and intermediaries have responded to both economic and environmental threats by establishing and/or underwriting the costs of a range of more sustainable alternatives (Giovannucci and Koekoek 2003, Daviron and Ponte 2005). In the early 1990s, the search for new markets by producers coincided with the growth of demand for organic, Fair Trade, gourmet, and other specialty coffee among consumers in the US and Europe
(Renard 1999). Many Mexican coffee growers embraced one or more of these alternatives. Mexico is a leading producer of certified organic coffee, following Peru and Ethiopia (ICO 2005). Organic production represents over one-fifth of total coffee hectares and over one-tenth of coffee producers in Mexico.[1] Today there are 45 Fair Trade certified cooperatives and other coffee operators in Mexico (FLO 2007). Mexico is the leading world supplier of Fair Trade green coffee, with annual exports exceeding 3,500 metric tons (Raynolds 2002, Boot 2003, Murray et al 2003). Mexico is also the world leader in dual-certified coffee that carries both Fair Trade and organic certifications. A full 80% of Fair Trade coffee sold in the United States is also certified organic (Raynolds 2002).

Following INMECAFE’s dissolution, the Mexican national federation (Confederación Nacional de Organizaciones de Cafetaleros, CNOC), the Oaxacan state federation (Coordinadora Estatal de Productores de Café de Oaxaca, CEPCO), and individual cooperatives all attempted to market their coffee more directly to roasters and distributors in importing countries. This strategy proliferated across Mexico in part due to the pre-existing organization of the country’s coffee farmers, with responsibility for technical assistance—such as certification—shifting from the government to the cooperatives (and associated NGOs). The withdrawal of the federal government thus opened space that allowed for independent action by the cooperatives, as well as joint action through state-level (CEPCO) or national-level (CNOC) organizations.

The popularity of Fair Trade-organic coffee in Mexico is at least in part due to the dominance of a relatively low-intensity smallholder production system, which lowers the cost of transition to environmentally sustainable production. An estimated two-thirds of Mexican coffee farmers are “organic by default” because they are unable to afford agrochemicals (Boot 2003;
Rice 1999; Porter 2000). Consequently, Mexico has one of the lowest coffee productivity rates in the world. Between 1980 and 1990, Mexico averaged only 575 kilograms (kg) of parchment coffee per hectare; as a comparison, Costa Rica averaged 1,955 kg per hectare during the same time period (Piñon and Hernández Díaz 1998).

Thus, Mexico is differentiated not by its ability to produce mass volumes of coffee but by the nature of the growing process. Most Mexican coffee is produced by small, indigenous producers under forest cover. But Mexico can also produce high quality coffee given the elevation and quality of much of its coffee land. These characteristics give Mexico the potential to pursue socially-conscious, environmentally-conscious, and gourmet coffee. In fact, differentiating smallholder-produced organic coffee from the conventional coffee market may be the only hope for survival of this system.

Migration

The more remote regions of Oaxaca, Chiapas, and Veracruz—where the majority of Mexican coffee is grown—have not traditionally sent migrants to the US. However, the coffee crisis has been associated with increased out-migration from Mexican coffee-producing communities (Aranda and Morales 2002, Carlsen and Cervantes 2004, Harris 2003, Jaffee 2007, Piñon and Hernandez Diaz 1998). While it is difficult to estimate the precise relationship between the coffee crisis and undocumented migration from Mexico to the US, there are clear indications of a relationship between the two phenomena.

Labor migration from Oaxaca has occurred for most of the last century. The Mixtecs—Oaxaca’s second largest indigenous group—have a particularly long history of migration with farm labor contractors to work in agriculture in both northern Mexico and the US (Zabin et al 1993). Some Oaxacans participated in the Bracero Program, and a subsequent wave of US-
bound migration started in the early 1970s. Repeated surges of migration occurred after devaluation of Mexico’s currency in 1975, 1983, 1986, and 1994. By the early 1990s, Mixtecs were working in many areas of the United States (Runsten and Kearney 1994) and there was a large concentration of Zapotecs—Oaxaca’s largest indigenous group—in Los Angeles (López and Runsten 2004). In fact, the incorporation of Mexico’s marginal indigenous groups into the migration stream over the last decade has accelerated to the point where Oaxaca may now be the largest sending state of new migrants to the United States (Runsten 2005).

Migration theory suggests a number of reasons coffee-growing families might undertake migration, one of which is to diversify risk. Low prices present coffee farmers with two views of a new reality: on the one hand, coffee has become a more risky investment, suggesting that diversifying livelihoods by sending family members to work off-farm would lessen the overall risk; on the other hand, the lower financial returns from coffee mean that the family requires alternative sources of cash both for living expenses as well as for operating capital for coffee production. Incomplete capital markets in rural Mexico imply that only well-connected coffee cooperatives have access to low-cost operating capital, and even this is limited.

A well-studied characteristic of migration is that it is cumulative and self-perpetuating (Myrdal 1957, Massey et al 2002). As migration develops, the risks associated with it decline and the expected returns rise due to the development of social capital, leading to more migration. This drains human capital out of the region and raises the opportunity cost of labor, and hence the local wage. Furthermore, as remittances flow back to a village, the price of land and other assets become inflated without relation to their true value in production (Taylor et al 2005, Taylor and Martin 2001). Coffee growers who migrate in part to provide operating capital for coffee thus end up undermining coffee production by raising its costs.
These migration dynamics have not been given sufficient attention in recent studies of certified coffee. In the rest of this piece, we explore the impact of migration on a coffee village in Oaxaca with a high proportion of Fair Trade-organic certified growers. We suggest that such migration might in fact undermine the optimistic view of the Fair Trade-organic system as it currently operates.

TAKING A CLOSER LOOK AT THE LINKS: CASE STUDY OF A OAXACAN COMMUNITY

Jessa Lewis and a local assistant, Adalberta Antonio Santiago, interviewed members of a random sample of 105 coffee-farming households during Summer 2004 in San Juan Cabeza del Río, a coffee-producing community in the Mixteca region of Oaxaca.[2] Coffee farming, accompanied by subsistence corn and bean production, has been the main economic activity of the community for almost 40 years. Two coffee cooperatives, La 21 de Septiembre and Michiza, operate in the community and organize more than 130 producers. Both are Fair Trade certified and their members are certified organic.[3] They sell their coffee through Fair Trade-organic markets and receive the associated price premium. At least 50 non-organized coffee producers are also found in the community. The latter are neither organic certified nor able to certify their coffee as Fair Trade due to their non-organized status.

History of migration from Cabeza del Río

Migration from Cabeza del Río to other parts of Mexico has occurred for generations, and migration to the US has occurred since the early 1980s. The resident population of Cabeza del Río during Summer 2004 was 1,512. Overall, 2,364 people were identified with ties to Cabeza del Río: 21% in the United States, 15% elsewhere in Mexico, and 64% in the community.
Migration typically exacerbates inequality across households in a community (Jones 1998, Barham and Baucher 1998). Wealthier households can afford to send migrants to the US, and remittances generated by migration serve to further increase their wealth. This pattern holds in Cabeza del Río, where clear differences are observed between households that have sent migrants abroad and those that have not. A further distinction is owed to the timing of first migration. As shown in Table 1, over one-half of migrant coffee-producing households sent their first member to the US sometime after 1995. Using asset accumulation (ownership of cattle) and living conditions (construction material of house) as proxies for wealth, the households that began migrating before 1995 are wealthier today than the households that migrated after 1995, while households that have never migrated internationally are most likely to have rustic houses and own no cattle (see Table 2).

 Have migrant households invested the fruits of migration in their coffee operations? We found that households that started sending migrants to the US in the earlier periods are likely to own more coffee land and to have sold more coffee in the 2003-2004 harvest. Although the data do not reveal to what extent households were participating in coffee production before they began sending family members abroad, these results suggest that, at least historically, migration and coffee production in the community have been complementary.

*The coffee crisis and increased international migration*

Like small growers around the world, coffee producers in Cabeza del Río have suffered from a prolonged drop in world prices. Although international migration has been underway since the 1980s, sojourns by members of coffee-producing households have accelerated dramatically of late. In fact, 74% of first-time journeys to the US by members of coffee-
producing households have occurred since 1999. As Figure 1 suggests, this surge can be linked at least in part to the recent drop in world coffee prices. A simple bivariate correlation between the percent of first-time US sojourns and international coffee price showed a significant, negative correlation between coffee prices and first-time journeys to the US.[4] Moreover, when asked to specify the reasons why household members had migrated to the United States in open-ended questions, the second and third most commonly cited responses, following “lack of money / poverty”, were that coffee was no longer a viable activity (“el café ya no vale”) and that the community lacked income opportunities in general.

While our findings are consistent with reported increases in international migration throughout Latin America in the years following the coffee crisis, the coffee price collapse is not the sole factor behind increased migration. A variety of economic, social, and political factors in both sending and receiving countries influence migration trends. For example, the peso-to-dollar exchange rate is significantly, positively correlated with journeys to the US; as the peso loses value relative to the dollar, US-bound migration tends to increase.[5] This suggests that factors beyond coffee price are also linked to the recent increase in international migration from Cabeza del Río, and that the coffee crisis must be analyzed as one of many forces affecting the migration calculus.

[Figure 1 here]

The recent surge in US-bound migration from Cabeza del Río since 1999 coincides with a period of tightened border enforcement, which has made it increasingly more expensive and more dangerous to cross into the US (Cornelius 2005; Fuentes et al 2007). That a growing number of individuals from Cabeza del Río has decided to pursue international migration at a time when the costs and dangers of border crossing border are higher than ever suggests that the
forces driving migration are unresponsive to US immigration policies (Massey et al 2002, Cornelius and Lewis 2007).

**Impacts of migration**

(i) Labor scarcity and wage-labor costs

Migration engenders a series of processes that affect coffee production’s viability. The departure of household members erodes family labor power, particularly male labor power. International migration from Cabeza del Río is performed mostly by men (88%) of prime working age (78% are between age 16 and 28, inclusive). Consequently, working age men are in relatively short supply in the community. Among our interviewees, over one-half of the households had at least one male member in the US, often including the male head of household.

Coffee production is a labor-intensive activity that cannot be easily mechanized. It is also an extremely time-sensitive process; coffee cherries must be plucked at a particular stage of ripeness in order to ensure optimal quality. Coffee-producing families in Cabeza del Río have traditionally met their labor needs by engaging in mutual, unpaid labor exchanges called *guetzas*. In addition to *guetzas*, the hiring of non-family labor has also been a common and crucial practice in Cabeza del Río, especially during the harvest. Day-laborers from nearby communities have typically arrived during periods of peak activity, and landless (or land-poor) individuals from Cabeza del Río perform day-labor in the fields of their neighbors. This wage-based system of labor exchange largely dominates in the community today.

Our respondents repeatedly complained that the labor needed for the weeding/clearing of brush (*limpia*) and the harvest has become more expensive. The average day laborer earned 100 pesos a day at the time of our interviews and only 50 pesos per day just five to seven years
earlier. This cost increase can be attributed in large part to migration, since people have an alternative cash-generating opportunity in the US and thus can demand a higher wage.

International migration from communities surrounding Cabeza del Río has increased as well, exacerbating labor scarcity and giving wage-laborers even greater bargaining leverage. Respondents who were unable to find or afford enough day-labor lamented the large quantities of coffee cherries left to rot on the branches during the 2003-2004 harvest.

(ii) Remittances

Although international migration has eroded family labor power and increased the cost of non-family labor, it also has contributed extra income in the form of remittances. Many households in the community use part of the remittances they receive to help cover operating costs for coffee production. Paying day-laborers for coffee activities was the second most commonly-cited use of remittances, following food and basic household needs. When asked specifically if remittances had been used for investment in coffee production, nearly three-quarters of remittance-receiving households replied that they had used remittances to hire day-laborers for the \textit{limpia} and/or harvest. Our results suggest that households with male family members in the US are significantly more likely to hire labor for coffee-producing activities and are likely to spend more money per kilo produced on this hired labor. As might be expected, the per-kilo amount spent on hired labor tended to be highest when the male head of household was in the US (see Table 3).

[Table 3 here]

When households use remittances to hire non-family labor, resources circulate throughout the community and lessen the tendency for migration to exacerbate the gap between migrant and non-migrant households.[6] Higher wages have a similar effect. Most day-laborers are Cabeza
del Río residents, as opposed to seasonal laborers from surrounding communities. Wage work on other people’s land was more likely to be pursued by households that do not send migrants to the US, and thus do not have this additional income source, than those that do.

(iii) Organization

A major impetus for investigating the link between migration and coffee production was to further explore the suggestion of recent studies that producers of Fair Trade-organic coffee have been better able to weather the coffee crisis, lessening their need to migrate. The findings from Cabeza del Río demonstrate that the community’s organized producers (socios), who are Fair Trade-organic certified and sell their coffee to premium markets, are indeed better off than non-organized producers (libres), who do not produce certified coffee. First, socio households are more than twice as likely to own the basic infrastructure needed to process high-quality coffee. Second, whereas more than one-quarter of organized households own cattle, only 7% of non-organized households are cattle-owners. Finally, organized households own significantly more coffee land on average (36% own more than three hectares) than non-organized households (10% own more than three hectares), indicating greater wealth and/or greater commitment to coffee production.

Did international migration also contribute to organized households’ greater wealth? Contrary to what Fair Trade marketing literature might lead us to expect, organized/certified producer households in the community are currently more likely to be migrating internationally than non-organized households: two-thirds of organized households versus one-third of non-organized households had family members residing in the US at the time of interview. Present-day organized households are also more likely to have begun sending migrants to the US earlier than present-day non-organized households, as shown in Figure 2. Whereas no present-day
unorganized households were sending migrants to the US in the 1980s, more than one-quarter of organized migrant households had sent their first family member between 1982 and 1989, a period when coffee prices were still relatively high. This suggests that organized households—generally the wealthier households in the community—were wealthier to begin with, and that they pursued migration not as a reaction to low coffee prices but as a means to diversify their income and risk in the face of the drastic devaluation of the Mexican peso in the early 1980s. They saw international migration and coffee production as complementary activities.

Migrant remittances can allow producers to better capitalize coffee production for higher yields and returns. But this strategy only works if prices are high enough to justify the investment. At the time of study this investment hardly seemed merited. Even Fair Trade-organic certified producers did not consider the price they received to be very ‘fair’. For the 2003-2004 harvest, organized coffee producers in Cabeza del Río received a price that was 60% higher than that received by non-organized producers, on average (respectively, US$1.50/kg and US$0.94/kg). However neither group (over 90% for each) reported that coffee production resulted in economic gains. One explanation for this dissatisfaction is that organized growers in Cabeza del Río produce organically, which can require three times as much labor as conventional coffee production (Calo and Wise 2005). Furthermore, certification demands significant investments by the cooperative (Mutersbaugh 2004). The Fair Trade-organic price premiums do not appear to compensate for the extra investment required by organic producers and their cooperatives.

We calculated the net returns to coffee-producing households in Cabeza del Río by subtracting the out-of-pocket costs for three major tasks (weeding/brush-clearing, pruning, and
harvest) from total coffee sales. When accounting for hired labor and input costs, 47% of non-organized and 28% of organized households registered negative returns in 2003-2004. These amounts pale in comparison to household income accruing from remittances. The value of remittances received in the last 12 months by coffee-producing, remittance-receiving households varied considerably, from a high of 60,000 pesos (US$5,263) to a low of 2,000 pesos (US$175). However, of the 39 households that both sold coffee in the 2003-2004 cycle and received remittances in the last 12 months, 37 of them received greater returns from remittances than from coffee. The average difference between remittances and coffee returns for these households was nearly 21,000 pesos, or about US$1,858 (See Figure 3).

[Figure 3 here]

Because even the Fair Trade-organic price often fails to cover costs, producers have been lobbying the government for subsidies. Three main subsidies are tied to coffee production: the Price Stabilization Fund, the Coffee Productivity Fund, and recently-implemented Environmental Services Payments. If all three subsidies had been fully operating in the 2003-2004 cycle, the average producer in Cabeza del Río would have received an estimated US$1.02/kg beyond the average price paid for conventional coffee (US$0.94/kg) or Fair Trade-organic coffee (US$1.50/kg). This is a significant increase and may help to explain the persistence of coffee producers in the face of low prices, since a farmer must have coffee land in production in order to receive these subsidies. However, at the time of study, Environmental Service Payments had not yet been implemented and application of the other two subsidies was very uneven. Therefore, it is only speculative to assume that producers might receive these subsidy amounts.

(iv) Environment
Coffee is produced in some of the poorest and most marginalized regions of Oaxaca, in remote communities characterized by relatively poor infrastructure. One positive by-product of these developmental deficiencies is coffee regions also tend to be more environmentally pristine. The coffee problem in Mexico therefore threatens not only some of the country’s poorest and most marginalized people, but also the country’s delicate environment. This is particularly worrisome given that many of these coffee farms fall within the internationally-designated Mesoamerican ‘biodiversity hotspot’ zone (Conservation International 2005).

Coffee producers of Cabeza del Río intercrop coffee plants with shade trees of various types in a diverse agroforestry system (Porter 2000). In contrast to other agricultural activities such as corn cultivation and ranching, which often require clear-cutting or slash-and-burn practices, coffee can be grown in relative harmony with the forest (Hull 1999). Traditional coffee systems do not provide the ecological benefits of a natural forest, but they come closer than most other agricultural systems to reproducing natural forest structure and function. In addition to providing valuable habitat for a diverse array of plant and animal species (Rice 1999), the shade trees on traditional coffee farms help mitigate the effects of global warming through carbon sequestration.

Due to low coffee prices, farmers throughout southern Mexico are abandoning their fields or converting coffee to more environmentally intensive uses. The switch to corn often entails slashing-and-burning of surrounding forested land, imposing severe ecological consequences (Porter 2000). Conversion to pasture for cattle grazing may provide some liquidity in times of emergency, but it also creates environmental threats.

If coffee continues to be unprofitable, further abandonment or land conversion in Cabeza del Río are real possibilities (See Blackman et al 2004 for a comparison). The environmentally
damaging switch to pasture could be important in light of migration prevalence in the community, since migrating households are more likely to have cash to purchase livestock. When asked what they would do if coffee prices did not rise within the next several years, 20% of our respondents said they would convert coffee land to pasture, and 18% said they would covert land to maize production. As one farmer put it, “Coffee is not a product that we can eat.”

LOOKING TO THE FUTURE: IS FAIR TRADE-ORGANIC COFFEE SUSTAINABLE IN CABEZA DEL RIO?

In a community like Cabeza del Río, where migration is fairly well-established, producers continue to grow coffee for a variety of reasons. When asked why they still grow coffee in the face of low or negative returns (indeed, nearly one-third were losing money at the time of interview), over half replied that they would feel sad to cut down the plants because coffee is something that supported them in the past. “It’s not the plant’s fault!” was a common refrain. Approximately one-quarter said they still engage in coffee production because it is a custom/tradition. Other reasons were less sentimental and more practical: about one-quarter replied that they were waiting for the price to rise again, while one-third replied that they simply had no other alternative: “no hay otra [actividad]”. Organized producers also noted certain commitments to their organizations.

Our respondents often spoke with nostalgia about a time “when coffee had value”, when houses were built, animals bought, and other investments made with proceeds from coffee. They spoke proudly about how, during the most recent peak in coffee prices in 1997, they produced and sold coffee at double, triple, and even quadruple their current quantities. No one in those times would consider leaving coffee cherries unharvested, as many do now due to the escalating
costs of hired labor, the lack of available family labor, and prices that do not compensate for investments. How long will households continue with an activity that returns little or no profit, especially in the face of migration opportunities that appear to offer ten times more income?

At the moment, some producers in Cabeza del Río are using remittances to finance the operating costs of coffee production in the expectation that their investments will pay off later. The expectation that prices will rise is based on experience, and indeed coffee prices are again on an upward swing. However, unless the rise is considerable, or significant subsidies are disbursed regularly, many producers might abandon it in the near future. Almost 30% of Cabeza del Río growers stated they would abandon coffee if they continued to make little or no profit in the activity.

The various environmental benefits of organic and shade-grown coffee are now well-documented, but there is no evidence that the premium paid for organically-grown coffee compensates growers for the provision of these ecological services (Giovannucci and Ponte 2005; Calo and Wise 2005; Daviron and Ponte 2005). An important step towards a fairer price for these farmers would be a systematic study of costs associated with producing ecologically-sustainable coffee. Determining the true cost of environmentally-sound coffee production, and quantifying the corresponding environmental and social benefits, could help ensure adequate compensation for coffee farmers.[7]

As suggested earlier, coffee production and international migration need not be mutually exclusive survival strategies. International migration can not only help capitalize coffee production for higher yields, quality, and returns, but also can provide the impetus for poor, rural households to make use of financial institutions through which they can save, since these institutions can facilitate receipt of remittances. This trend was notable in Cabeza del Río, where
42% of households with migrants in the US had bank accounts, compared to only 5% of households with no US migrants. If remittances were channeled through savings accounts in locally controlled financial institutions, perhaps developmental loan programs could be undertaken and people would leave their money in the bank rather than invest it in cattle and attendant deforestation.

But coffee prices would have to be much higher and more stable. At the time of our survey, nominal wages had doubled in five years in Cabeza del Río, but the fixed price of Fair Trade-organic coffee had not risen in over 10 years. Because a uniform minimum price is guaranteed to producers organized in Fair Trade cooperatives, no matter where they are located, producers in high-cost labor regions are clearly at a disadvantage. Due in large part to its migration history, Cabeza del Río is characterized by both high-cost labor and low yields. Raising the Fair Trade price across the world will not alter this disadvantage.

Even if coffee prices rise greatly, it will be impossible to recreate the coffee economy of the past in a community like Cabeza del Río. Accelerated emigration has fostered labor scarcity and doubled local wages in nominal terms. Most young people either leave the village for the US or for higher education. Neither path makes a return to the fields likely. A difficult generational transition lies ahead. One could imagine fewer coffee producers with higher returns, but the availability of labor would appear to be a serious obstacle to the sustainability of certified coffee production.

If the future looks difficult for coffee in Cabeza del Río, can certifying coffee as Fair Trade-organic prevent migration from occurring in places where the opportunity cost of household labor is still relatively low? Based on a case study of a prominent organic coffee association in Chiapas, Ronald Nigh asserts that the economic success of organic coffee production hinges
directly upon the level at which household labor is valued. The results from Cabeza del Río are
directly in line with Nigh’s finding:

“… the relative profitability of organic versus conventional coffee is determined
primarily by the low opportunity cost of household labor of the campesino family. This
factor is more important than both price or the organic or social premium given to
certified coffee. Thus, the study confirms organic coffee production as the ideal strategy
for campesino families where household labor is generally undervalued, or where older
dependent sons prefer not to emigrate from the community to seek better paying work in
construction, industry, or across the border” (Nigh 1997: 434).

In order to adequately assess the economic and environmental potential of Fair Trade-organic
coffee production in southern Mexico, far more attention must be paid to international migration.

What is happening in Cabeza del Río may foreshadow what will be seen in much of the rest of
southern Mexico as migration accelerates.

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**TABLES AND FIGURES**

Table 1: Year of First Departure by First Household Member to Migrate to the United States

<table>
<thead>
<tr>
<th>Year of First Departure</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1982 - 1995</td>
<td>28</td>
</tr>
<tr>
<td>1996 - 2000</td>
<td>25</td>
</tr>
<tr>
<td>2001 - 2004</td>
<td>22</td>
</tr>
<tr>
<td>No HH member ever migrated to the United States</td>
<td>25</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
</tr>
</tbody>
</table>

N=97
Source: Lewis 2005
Table 2: International Migration and Indicators of Wealth

<table>
<thead>
<tr>
<th></th>
<th>Roof of corrugated iron or tile</th>
<th>Cement roof</th>
<th>Cattle owned</th>
</tr>
</thead>
<tbody>
<tr>
<td>First US migrant originating in HH left 1982 - 1995</td>
<td>17 %</td>
<td>52 %</td>
<td>52 %</td>
</tr>
<tr>
<td>First US migrant originating in HH left 1996 - 2000</td>
<td>23 %</td>
<td>33 %</td>
<td>29 %</td>
</tr>
<tr>
<td>First US migrant originating in HH left 2001 - 2004</td>
<td>25 %</td>
<td>15 %</td>
<td>14 %</td>
</tr>
<tr>
<td>No one ever migrated from HH to the United States</td>
<td>35 %</td>
<td>0 %</td>
<td>5 %</td>
</tr>
<tr>
<td>Total</td>
<td>100 %</td>
<td>100 %</td>
<td>100 %</td>
</tr>
</tbody>
</table>

N=97  Differences between early and more recent migrants significant at 99% (p<.0001 for roof and p=.011 for cattle).
Source: Lewis 2005

Figure 1: Cabeza del Río Migrant Journeys to the United States and Coffee Prices

N=101  Sources: International Coffee Organization (ICO 2007), Lewis 2005

Table 3: Pesos Spent on Hired Labor (Per Kilo of Coffee Produced) for the Limpia, Harvest, and Pruning versus Degree of International Migration in the Last Five Years

<table>
<thead>
<tr>
<th></th>
<th>No labor hired</th>
<th>.001 to 10 pesos/kilo</th>
<th>&gt;10 pesos/kilo</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Migrated to the United States:</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>HOH only or HOH plus son(s)</td>
<td>8 %</td>
<td>29 %</td>
<td>63 %</td>
<td>100 %</td>
</tr>
<tr>
<td>One or more sons</td>
<td>10 %</td>
<td>48 %</td>
<td>42 %</td>
<td>100 %</td>
</tr>
<tr>
<td>No HOH nor any sons</td>
<td>59 %</td>
<td>31 %</td>
<td>10 %</td>
<td>100 %</td>
</tr>
</tbody>
</table>

N=87  Differences according to degree of international migration significant at 99% (p<.0001).
Source: Lewis 2005
Figure 2: First Year of Migration by Present-Day *Socio* and *Libre* Households
N=97    Source: Lewis 2005

Figure 3: Net Coffee Returns Versus Remittances
N=39 Calculated for producer households that both sold coffee and received remittances in 2003-2004.
Source: Lewis 2005
Endnotes:

1. Estimates based on preliminary results from a project of the Center for Socioeconomic and Technological Studies in Agriculture (CIESTAAM) entitled "Sistema de Seguimiento de la Agricultura Orgánica de México". The land and producer figures cited account for both ‘in transition’ and certified organic coffee (Lobato García 2005).

2. Cabeza del Río was chosen based on the following criteria: importance of coffee production as an economic activity; large numbers of organized producers (socios) and non-organized producers (libres); high quality coffee commanding a premium price; many producers with Fair Trade and organic certification, with correspondingly significant sales to Fair Trade-organic markets; and noteworthy presence of out-migration. See Lewis 2005 for sampling methodology.

3. A very small fraction of La 21 and Michiza producers are in transition to becoming certified organic (a three-year process), and thus receive a lower premium for their coffee. Both La 21 and Michiza have been promoting organic production since the mid-1990s. Michiza has been Fair Trade certified since the early 1990s and La 21 since the mid-1990s.


5. Correlation between percent of US sojourns and peso-dollar exchange rate over the period 1982 to 2003, Pearson Correlation = .778 (p=.0001).

6. Circulation of remittances throughout a community to benefit migrant and non-migrant households alike has been well studied in the last decade (see Durand et al 1996, and Taylor 1999).

7. Several such cost studies are underway, and one has been completed (Bacon 2006).