Agric Hum Values (2014) 31:577–591
DOI 10.1007/s10460-014-9502-x

Co-operative or coyote? Producers' choice between intermediary purchasers and Fairtrade and organic co-operatives in Chiapas

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Accepted: 6 February 2014 / Published online: 30 April 2014

Abstract Coffee producers in many parts of the world have the option of either becoming a member of and selling their coffee to a Fairtrade and organic co-operative, or selling it to a "coyote", the Central American nickname for intermediary purchaser. This study investigates why different producers make different choices, looking at both material and immaterial costs and benefits of the two choices. A qualitative study from Chiapas (Mexico) finds that a main reason for not choosing the co-operatives is the production requirements that follow organic certification. A survey on production costs confirms that members of an organic co-operative have more work hours than non-members in the same area. A probit analysis indicates that both coffee plot size and number of working household members influence the producers' decision on sales channel. However, the study also finds that aspects not related to the organic production requirements can affect the choice, such as the level of trust in co-operative leadership, and the co-operatives' payment systems.

Keywords Fairtrade · Organic production · Farmer cooperatives · Coffee · Mexico

Abbreviations

Certimex	Certificadora Mexicana de Productos y Procesos Ecológicos
FLO	Fairtrade International
IAI	Inter-American Institute for global change research
PRD	Partido de la Revolución Democrática
UREAFA	Unión Regional de Ejidatarios Agropecuarios, Forestales y de Agroindustria de los pueblos Zoque y Tzotzil del Estado de Chiapas

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Introduction

The Fairtrade labelling system emerged in the south of Mexico in the late 1980s. The era of the International Coffee Agreement[1] and government price regulations had just ended, and producer owned co-operatives that had previously sold their coffee to government owned institutions were now faced with low prices offered by local intermediary purchasers (Renard 1996). The creation of the Fairtrade scheme gave the co-operatives an opportunity to sell their coffee on the international market, at a "guaranteed minimum price" in addition to a price premium.[2] The intention of the Fairtrade system is to give consumers the opportunity to buy goods from producers in the South which have fulfilled certain standards, "designed to address the imbalance of power in trading relationships, unstable markets and the injustices of conventional trade" (FLO 2013). Importers who purchase from producers who have fulfilled these standards market the products using the Fairtrade label, recognisable by consumers. The Fairtrade

[1] An agreement between coffee producer and consumer countries first signed in 1962, aimed at keeping coffee prices stable by using export quotas that government bodies in each producer country were responsible for maintaining.

[2] In 2013 the minimum price was 1.40 USD/lb for washed Arabica coffee and the premium 0.20 USD/lb. According to ICO statistics this is roughly the same as the average price for "Other Mild Arabica" coffee for 2013 (ICO 2014).

system soon expanded, and in 2011 there were 329 Fairtrade labelled coffee producer organisations in the world, 12 % of these in Mexico (FLO 2012). Today the Mexican Fairtrade co-operatives generally have the organic certificate as well. This does not include a guaranteed minimum price but qualifies them for a premium of between 10 and 30 US cents/lb. In contrast to the Fairtrade system, which certifies the trade process, the organic standards regulate practices in the production process, and consumers purchase organically labeled products mainly because of the ecological and health benefits gained from eliminating chemical pesticides and fertilizers (Bacon 2005).

Many coffee producers in Chiapas, Mexico, as well as in other parts of the coffee producing world, are now in a situation where they can choose between becoming a member of and selling their coffee to a Fairtrade and organically certified co-operative, or selling it to a local intermediary purchaser. One would perhaps expect the co-operative to be the preferred option. The intermediaries have a reputation of not only collaborating with each other in order to keep local coffee prices low; they are also said to cheat the farmers on the weight and quality of their coffee (Raynolds 2002; Milford 2012; Mujawamariya et al. 2013). This is probably the reason why in Central America they are nicknamed 'coyotes', after the prairie wolf that feeds on dead animals. In contrast the certified co-operatives offer members high and stable prices, and Fairtrade farmers have been found to have higher asset value and credit access, and to be less risk averse than non-certified counterparts (Bacon 2005; Ruben 2008). Other positive effects are the investments of Fairtrade premiums in collective goods that benefit whole communities (Raynolds et al. 2004; Murray et al. 2006; Ruben 2008). Studies have also found that certified production has an empowerment and capacity building effect, leading to increased bargaining power of grass roots organisations, and that the training and education of certification workers promotes the development of a skilled workforce at village level (Raynolds et al. 2004; Mutersbaugh 2004).

Despite these positive impacts, it is a fact that many producers choose the private intermediary before Fairtrade and organic co-operative membership. Since its beginning, the aim of the Fairtrade labelling system has been to expand and to always include a larger number of producers, while at the same time increasing the positive impact on its participants (Murray et al. 2006). At the same time it has long been recognized that there is a dilemma between the aim of social equity, or broadening and deepening the impact of Fairtrade, and the aim of economic efficiency at all levels in the system (Raynolds et al. 2004). A study of the reasons producers have for not joining Fairtrade and organic co-operatives, and an identification of the difference in characteristics of those who choose one or the other, will tell us to what extent the Fairtrade labelling system has the capacity to reach far, and to reach the poorest and most vulnerable, without compromising with the efficiency aims.

The nature of the co-operative enterprise and how it works may partly explain the producers' choice. In general the main economic benefits of agricultural marketing co-operatives are the profits gained from marketing activities, usually redistributed to members according to quantities delivered (LeVay 1983). The decision on whether or not to join is primarily based on a valuation of the material costs and benefits, first and foremost those derived from the control on co-operative assets and rent redistribution (Pascucci et al. 2012), but also from other benefits such as access to credit and materials through economies of scale purchases (Deininger 1995; Rice 2001). Producers may also seek immaterial benefits or social goals through co-operative membership, such as interaction with other members and the development of personal relationships (Hansen et al. 2002). Some of these costs and benefits will be valued differently among the producers. For instance, time spent on meetings will for some people be seen a value, for others it is only a cost (Hansmann 1996). Co-operatives may also provide collective goods gained from, for instance, lobbying activities (Fulton 1999; Rice 2001), or destabilising a monopsonist or a cartel of private purchasers (Sexton 1990; Fulton 2004; Milford 2012). Different valuations of these collective goods, and the perception of the co-operative as an ideologically based organisation may influence the membership decision, and some farmers may be motivated to join by the norm of fairness and a sense of duty and social responsibility (Fulton 1999; Thorp et al. 2005). Also different levels of trust, both in other members and in the management, may explain the co-operative membership choice (Hansen et al. 2002; Jones 2004).

Empirical studies of producers choosing between co-operatives and intermediaries, and the costs and benefits from the different options, have been made in several countries, including in the developing world (Thorp et al. 2005; Basu and Chakraborty 2008; Bernard and Spielman 2009; Barham et al. 2011; Fischer and Qaim 2012). There is also a study from Rwanda looking at why members of Fairtrade coffee co-operatives choose side-selling to private intermediaries. This found that producers who had long-standing relationships with intermediaries had a preference for them because of the credit opportunities and immediate payment they offered (Mujawamariya et al. 2013). Some studies have found that the fixed costs of co-operative membership, such as compulsory production requirements, meeting obligations, and membership fees, are higher for producers who are poor or gain a small share of their income from agriculture; hence they are less likely

to join (Bernard and Spielman 2009). On the other hand, the advantages of selling the product jointly could be smaller for the largest producers and therefore make them less interested in the co-operative, which gives a "middling effect" (Thorp et al. 2005; Bernard and Spielman 2009; Fischer and Qaim 2012).

Previous studies looking at membership in Fairtrade and organic co-operatives in Mexico and Central America have found that the requirements to produce organically are more time consuming and therefore make the co-operative option less attractive (Pérez Grovas 2000; Bray et al. 2002; Jaffee 2007). Some authors argue that the lack of profitability of organic coffee production imply that governments and donors should focus on other issues than certification schemes (Beuchelt and Zeller 2011). However, a study from Nicaragua found that the organic production methods motivated membership, because they were seen as safer, and required a lower expenditure level (Bacon 2005). According to Martinez-Torres (2006), organic farming, which is cash-cheap and labour intensive, is appropriate for the cash-poor families in Chiapas, where underemployment is high and opportunity costs for extra family labour is low. Hence smaller farmers are more likely to be organic and larger farmers are more likely to use chemical technology (Martinez-Torres 2006). The tendency for Fairtrade and organic co-operative members to have smaller coffee areas and a higher ratio of on-farm family labour per coffee hectare was also found in a more recent study from Nicaragua (Beuchelt and Zeller 2011). On the other hand, Bray et al. (2002) found in their study of three organic coffee co-operatives in Chiapas that the members are predominately from the 2–5 ha stratum, and not from the smallest producers with <2 ha. This is to some extent confirmed in a later study from Chiapas which finds that the average size of organic farms is 2.9 ha, while that of the conventional is 2 ha (Barham et al. 2011).

This study seeks to reveal why producers choose as they do in Chiapas, Mexico. The aim of the study is twofold. Firstly to identify the main reasons why producers make different choices concerning co-operative membership,[3] focussing particularly on the claim that organic production is more time consuming. Secondly to investigate if there are certain characteristics of producers which make them more likely to be members of a Fairtrade and organic co-operative. This study differs from previous work in that it focuses on both the material and immaterial costs and benefits of participating in Fairtrade and organic co-operatives. It also uses a range of different methods in order to gain thorough insight of the theme, including an assessment of the different organic production requirements. The first section presents the results of a qualitative study among stakeholders in the coffee sector in Chiapas, Mexico. This section also contains the results of a survey among organic and Fairtrade certified co-operatives in Chiapas. The next section presents analysis of two different data sources: first the reasons for not joining an organic co-operative as explained by producers participating in a household survey in Jitotol, Chiapas. The second analysis is based on a survey from Jitotol on costs and benefits related to organic production in comparison with other production methods. In the last section an analysis of household data from the region of Jitotol is carried out, including a mean-comparison and a probit analysis on whether or not producers with certain characteristics have a higher likelihood of being co-operative members.

Coffee co-operatives and membership: case study from Chiapas, Mexico

This section presents the results of a qualitative case study from Chiapas, Mexico. The aim of the study was to gain a deeper insight to the complexity of the situation of the coffee producers, and their motivation for making different choices concerning co-operative membership. The study is based on 10 months of field research in 2006/2007. During this period interviews were made with coffee purchasers, government officials working in the coffee sector, and co-operative members and leaders from 15 different co-operatives. All the co-operatives were certified, mostly both Fairtrade and organic, and some only organic. The majority were from the Norte, Centro and Altos regions, but co-operatives and other coffee stakeholders from the Selva, Sierra and Soconusco regions were also interviewed. Three focus groups were organised, one with co-operative members, one with non-members and one with a mixture of members and non-members. The study includes a survey of 38 organic and Fairtrade co-operatives from Northern Chiapas.[4] All the interviews and focus groups were conducted in Spanish. A tape recorder was used and the recordings were later transcribed.

[3] The question is about choosing membership or not, and not about members side-selling to intermediaries, although the two aspects are closely linked.

[4] The Mexican certifier organisation Certimex held a workshop in San Cristobal and Tuxtla Guiterrez in May 2007. Representatives from all the organic co-operatives in Northern Chiapas participated.The representatives, one or two from each organisation, were mostly part of the technical staff, and all of them spoke Spanish and were able to read and write. The organisers from Certimex allowed me to hand out a questionnaire, which most of the participants completed.

Coffee cooperatives and labeling systems in Chiapas

Chiapas is the main coffee producing state of Mexico and also one of the poorest. In Mexico 99 % of coffee producers have <10 ha of coffee land (Giovannucci and Juárez Cruz 2006). In Chiapas 85 % of the producers have <2 ha, which is barely enough for making a living (Barrera et al. 2004). The average coffee plot size is 1.4 ha (SAGARPA 2005). There are few employment opportunities in rural areas in Chiapas (Lopez Arévalo 2007), and some studies have estimated that direct government support and overseas remittances on average amount to more than half of the income of the coffee producers (Giovannucci and Juárez Cruz 2006). High quality arabica coffee is by far the most common coffee variety produced in Chiapas, as in the rest of Mexico. But strong fluctuations in international coffee prices is a problem which destabilizes household incomes (Talbot 2004).

In 2006/2007 there were 38 Fairtrade labeled co-operatives in Chiapas. The main criteria for Fairtrade certification of co-operatives are that the majority of members are small producers, that the organization is democratic and transparent, non-discriminating, able to export coffee and environmentally concerned. The Fairtrade Labelling Organsation (FLO), with headquarters in Bonn, is responsible for the certification process. Market access is one of the most important benefits of being certified. However, there is no guarantee that a certified co-operative will find purchasers willing to pay the Fairtrade guaranteed minimum price, the premiums, and the licence fee in order to use the Fairtrade label. In fact, on a world scale the average amount of coffee sold under Fairtrade conditions rarely surpasses 25 % of the production (Ruben 2012). Co-operatives that do not find buyers for their certified coffee are forced to sell the coffee at conventional prices, which means that members will receive a lower price.

Since organically certified coffee is both more marketable and provides an extra premium, FLO encourages, but does not require, co-operatives to obtain the organic certificate. In Chiapas in 2007 there were 174 organic coffee co-operatives (SNIDRUS 2007). In order to become a member of an organically certified co-operative, coffee producers must apply organic production methods. There is a transition period of 3 years before the producers get the full organic price for their coffee. Members must also sometimes pay an entry fee and a yearly fee to cover administrative costs. The co-operatives cover the certification costs, and are inspected by auditors from organic certifier organisations, as well as from FLO, on a yearly basis. The process of becoming organically certified is complex, and requires much effort from the producers' and staff members involved in its administration (Mutersbaugh 2004).

As democratic organisations, the Fairtrade and organic co-operatives are run by members elected for managerial tasks for 2 or 3 years at the time. The elected committees are usually supported by staff members hired for longer periods. As a member you are expected to sell your coffee to the co-operative, but because of requirements from importers some co-operatives do not accept low quality coffee, which means that members are obliged to sell some of their harvest to the intermediaries. Most of the surplus from marketing the coffee is redistributed to members according to quantities delivered, as part of the price per kilo. But the co-operatives also spend some of the Fairtrade premium they receive on productive reinvestments and social goods such as roads improvements, education and health care (Raynolds et al. 2004).

Most coffee producers in Chiapas process their coffee into green coffee before they sell it. The small scale producers who are not organized in a co-operative either sell it to the local intermediaries who come to the village with their pick-up trucks, or transport it themselves to a small town such as the municipality centre. Here there are larger purchasers who offer slightly better prices than those obtained in the villages, but transport costs must be deducted. The intermediaries transport the coffee to a larger city centre such as Tuxtla and Tapachula where it is delivered to a processing plant that usually belongs to a transnational exporting company.

Since high quality organic coffee produced in Chiapas is in demand, many co-operatives that are both Fairtrade and organically certified sell a high share of their coffee as certified, and therefore generally offer members higher coffee prices than the intermediary purchasers. Still, in most places in Chiapas the majority of the producers sell to the intermediary, even when there is a co-operative nearby. Most of the co-operatives are open to new members. In fact, many co-operatives are actively seeking more members, as they have established relationships with importers and their coffee is in demand.

Reasons for joining Fairtrade organic co-operatives

When asking producers what is the advantage of selling coffee to a certified co-operative instead of an intermediary, the most frequent answer was that the price is better. In 2007 the average price offered by coffee intermediaries in Chiapas was 1.37 USD per kg (SPC 2007). As can be seen in Table 1, this is less than what any of the organic co-operatives that participated in the survey paid their members the same year, even for the first transition year. One of the co-operatives paid as much as 77 % more than the average intermediary price, and on average the co-operatives paid 44 % more. The Fairtrade labelled co-operatives offered on average 20 cents more per kilo than co-operatives that were only organically certified.

Table 1 Payment by co-operatives, in USD

	Mean	Median	Min	Max	Answers
Kg price conventional coffee (1st year as member)	1.7	1.6	1.5	1.9	7
Kg price coffee in transition (2nd year as member)	1.8	1.6	1.4	2.6	12
Kg price organically certified coffee (3rd and following years)	2	1.9	1.8	2.5	27

Source: Survey of 38 organic co-operatives in Northern Chiapas, Mexico, May 2007

The price the co-operatives offer depends on how much they manage to sell as Fairtrade, and organic. Co-operatives that are both Fairtrade and organic are usually more successful in finding buyers in the labelled markets than co-operatives that are only organic. Many co-operatives have also invested in their own roaster and grinder and sell their coffee in packages with their own label, mainly locally. Some co-operatives have also opened their own cafés, the most well-known are perhaps the ones of Union de la Selva and Majomut in the tourist town of San Christobal. But there are also others, like the café of CIRSA, catering for locals in the municipality of Simojovel de Allende. Going further up the value chain in this manner usually generates higher incomes for the members.

The higher price offered by the co-operative has been found to intensify competition among intermediaries in the region and thereby increase their price offer, the so-called "competitive yardstick effect" of co-operatives (Milford 2012). This effect was noticed by many stakeholders, and some of the producers interviewed answered that the reason they had joined a co-operative was to "combatir el coyote", to fight the intermediary. But the difference between the co-operative and the intermediary price depends on the international price level, which is highly volatile. The lower is the conventional coffee price, the larger is the benefit from receiving the Fairtrade minimum price. Co-operatives that are organic, but not Fairtrade, do not get a guaranteed minimum price, only a premium. This is a disadvantage when the conventional price is lower than the Fairtrade minimum price. When the conventional coffee price goes higher than the Fairtrade minimum price the Fairtrade price goes to the same level as the conventional price. In these periods only the premium constitutes the difference between the conventional and the certified price, for both organic and Fairtrade. Because the small co-operatives often have higher transaction costs than the private companies, the difference in price offer is not very large (Pérez Grovas et al. 2002). This makes the intermediary price offer more attractive, as explained by this co-operative advisor:

> When the price is very low, the co-operative guarantees a more fair price. On the contrary when the market prices are very high, the prices of the co-operative are not competitive.
> Co-operative adviser, Los Altos

Hence there are periods when selling to the intermediary is more tempting for the co-operative members. Risk aversion and a preference for stable future incomes may influence the decision. Or, as this stakeholder claims, it is a question about understanding the coffee price system:

> The members understand that the price can go down. Those who leave in order to sell to the coyote live in the moment. They don't understand the changing of the prices.
> Former co-operative president, Norte region

Another motivation for co-operative membership is the different types of support offered. All the organic co-operatives in Chiapas offer members technical assistance on coffee production. But in addition most of them receive government funding for specific agricultural activities, some of which are related to coffee production, others not. Examples are support given in the form of fruit trees, pigs, chicken and rabbits. For an independent farmer it is impossible to access this type of support, because it can only be distributed through a registered organisation. This also makes co-operative membership attractive for producers with little coffee production.

Ideology may also influence the producers' choice. According to Gonzalez and Nigh (2005), the co-operatives in Chiapas that initiated the organic movement had a strong ideological base, which linked the organic practice with indigenous identity and poor farmer interests. Some co-operatives have also been formed under the influence of religious people such as priests or nuns, and many co-operatives still emphasise Catholicism in their organisation. In addition there are several coffee co-operatives with political links, such as those who follow the ideology of the Zapatistas. Others identify themselves as indigenous groups. In the survey conducted with organic co-operatives, 25 of 34 (74 %) said they had an ideology which united the members. According to Raynolds et al. (2004) group identity is one of the central elements to the success of Fairtrade co-operatives. A co-operative ideology can become the glue that will keep the members faithful in times of high conventional prices. But on the other hand, by emphasising their ideology the co-operatives may also exclude farmers who do not identify with it.

Reasons for not joining

To become members of a Fairtrade and organic co-operative, farmers usually have to pay an entry fee, and they

Table 2 Membership fees, in USD

	Mean	Median	Min	Max	Answers
Entry fee new members	32.6	10	0	150	23
Yearly fees members	12.2	5	0	70	20

Source: Survey of 38 organic co-operatives in Chiapas, Mexico, May 2007

often also pay a yearly fee to cover different administrative costs. These fees were rarely mentioned as an important reason for not joining co-operatives. Very few co-operatives have a significantly high entry fee, and those who do, do not require that the entering member pays everything at once. Probably the fees are in some cases high enough to deter certain farmers from entering the co-operatives, but in Chiapas this seems to be the exception rather than the norm. An overview of entry fees and payments during the first 3 years for the organically certified co-operatives in Northern Chiapas is found in Table 2 below. Seven co-operatives (30 %) had no entry fee for new members, and seven had no yearly payments.

When asked about co-operative costs, stakeholders mentioned other requirements for co-operative membership more often than membership fees. One such requirement is the obligation to attend meetings, both the monthly ones at community level, and the yearly general assemblies. Often members are punished with a fine or exclusion from the co-operative if they fail to show up repeatedly. This could make co-operative membership less attractive for farmers who dislike spending time at meetings.

But the stakeholders' most often mentioned reason for not wanting to become a co-operative member was the organic production requirements. A co-operative adviser explained the choice of the non-members like this:

> They prefer to work like that with the intermediaries, the coyotes. For them it is less work. It is less work in the sense that they can cultivate their coffee as it is. Although it might be fermented, of bad quality, they can use chemicals, the work is easier. On the contrary, for those who enter the co-operative it's a little work, they have to take care of their coffee fields, they have to apply organic compost, take care of the plants, not use pesticides, nothing chemical, well it's more strict.
>
> Co-operative staff member, Los Altos

Some non-organised producers also said that it did not pay to be organic. According to them the organic production methods did not give sufficient yields, and although the price was higher, so also was the work load. In contrast, many organic producers claimed that organic production was indeed the most profitable choice.

The payment system of co-operatives and intermediaries could also explain the producers' choice. Intermediaries receive loans from exporters and can therefore pay producers the moment they hand over their coffee. Co-operatives traditionally have difficulties obtaining financial resources to pay for transactions (Turtiainen and Von Pischke 1986). Fairtrade and organic certification gives advantages in terms of both facilitating access to local credit, and prepayment from importers. But not all the importers offer the co-operatives the pre-payment they should according to the Fairtrade standards, a problem not only in Chiapas (Raynolds 2009). Since they lack working capital the co-operatives usually give members a residual 2 or 3 months after the harvest, when all the importers have paid for their deliveries. For some of the interviewed co-operatives lack of finance meant they could not buy all the coffee offered by their members, who were forced to sell to the intermediaries instead. On the other hand many co-operatives, as well as intermediaries, often give producers loans or prepayments to pay workers for the harvest. According to the previously mentioned survey in Chiapas, half of the co-operatives give members a prepayment for their deliveries, and in general there is variation among the co-operatives in how attractive their credit systems are.

As can be seen in Table 3, the members receive on average <74 % of the entire payment at the moment of delivery, and 18 % as a residual. On average the co-operatives offer 22 % of the total payment as a prepayment. A majority of those who answered offer members the possibility to take up loans. But many producers choose to sell to the intermediary because they need a loan that is larger, that can be given earlier, or they may need the entire payment at the moment when they deliver their coffee. This can deter producers from entering a co-operative, but it is also a reason why many members sell a part of their coffee harvest to the coyote. This way they have an income while waiting for the rest of their payment from the co-operative. In times of high conventional coffee prices, members' side-selling to intermediaries can prevent co-operatives from meeting contractual obligations with importers, and possibly lad to de-certification (Murray et al. 2006).

Some producers might also be sceptical about joining a co-operative because they do not trust it. With the intermediary, they receive their payment promptly as they deliver their coffee. With the co-operative, they have to wait for part of their payment. Unfortunately there have historically been many cases of fraud and corruption among co-operative leaders in Chiapas, which causes suspicion. Several interviewed stakeholders referred to stories of co-operative leaders pocketing members' money, and the probability of unethical behaviour in Latin American organisations is unfortunately not insignificant (Arruda

Table 3 Details on prepayment, loans and residuals in co-operatives

	Mean	Median	Min	Max	Answers
Prepayment, in percentage of total price paid	22 %	0 %	0 %	90 %	29
Months before harvest prepayment given	3	2	0.5	8	16
Maximum loan members can take, in USD	501	200	15	2,000	12
Monthly interest rate	1.7 %	1.5 %	0 %	5 %	11
Payment received at moment of delivery, in percentage	74 %	83 %	0 %	100 %	20
Payment received as residual, in percentage	18 %	16 %	0 %	50 %	18
Months after harvest residual received	2.5	2	1	8.5	18

Source: Survey of 38 organic co-operatives in Chiapas, Mexico, May 2007

1997; Rice 2001). And even when members do not worry about corruption, they could still fear that their appointed leaders will lose their money because of mistakes or mismanagement. For instance, there have been several occasions in which inexperienced co-operatives have been cheated by purchasers who never paid them for their coffee.

Survey analysis of coffee producers in Jitotol, Chiapas

Jitotol is a municipality situated in the north of Chiapas. Coffee production is one of the main economic activities in this area, but most producers have very small coffee plots and rely on remittances from migrated relatives and transfers through government programmes. The level of marginalisation is high, with 27 % being illiterate and half of the population living on dirt floors (INEGI 2007). 73 % of the population speak an indigenous language, zoque (Ibid). In 2007 there was one main coffee co-operative in the area, the Fairtrade and organically certified co-operative UREAFA.[5] Approximately 40 % of the coffee farmers in the region were members of this co-operative.

In 2007 a household survey was carried out in the area in relation to a research project financed by the Inter-American Institute for global change research (IAI)[6] and organised by researchers from four different Central American countries (for more information see Castellanos et al. 2012). The survey contains 1,281 interviews with a randomly selected sample of coffee producers from five different areas in Chiapas, Honduras, Costa Rica and Guatemala. The data was collected during the summer and autumn of 2007. The aim of the study was to investigate coffee farmers' adaptation to climatic change and market instability, and a number of questions were asked in relation to this. Of the two regions in Chiapas that were surveyed, Jitotol was the only area where the majority of the producers had the option of joining a Fairtrade and organically certified co-operative, hence only the results from this area could be used for this analysis. There were altogether 154 observations from this area.

[5] Unión Regional de Ejidatarios Agropecuarios, Forestales y de Agroindustria de los pueblos Zoque y Tzotzil del estado de Chiapas.

[6] www.iai.int.

Table 4 Reasons for not joining a co-operative, Jitotol, Mexico

Reason	Number of responses	Percentage of total respondents (%)
Don't like it	17	19
A lot of work	16	18
Because of politics	16	18
Do not know any	10	11
The co-operative pays very late	5	6
Corruption	4	4
A lot of time	3	3
No economic benefit	3	3
Other reasons[a]	21	23
Total	95	106

Source: Survey financed by the Inter-American Institute for global change research (IAI) 2007

[a] Among the answers given, 6 were related to coffee production methods, 2 to politics and 6 answered that they had not joined because they "had not been invited"

Reasons for not joining a co-operative, household survey results

After responding to the question "Are you or anyone in your family a member of a co-operative, association or group?", those who answered "no" were asked "Why do you not belong to any organisation?". There was a list of alternatives, among which the respondents could choose three. In addition they could give other reasons not on the list. Altogether 90 non organised coffee producers answered. The results are shown in the Table 4.

There are 18 % who say they do not want to join because it is a lot of work, indicating that the organic requirements are a disadvantage. This can also be reflected by the 3 % who say it is because it takes a lot of time. In addition, among the other reasons mentioned for not joining, 4 producers say that it is because they are using chemical inputs, and 2 say that the co-operative "wants

very clean coffee". But although reasons related to the production requirements of the co-operative are important, they do not have an overwhelming majority. In Jitotol politics is an important reason for not joining a co-operative (18 %). An explanation of this is found in the characteristics of the only co-operative in the area, UREAFA, which is strongly associated with the political party PRD. Until the co-operative became Fairtrade certified, only producers supporting PRD were allowed membership. Since FLO do not allow discrimination, they had to change this rule, but the links with PRD still remain strong and producers supporting the other political parties may not feel welcome. This is an example of how a strong ideology may be an excluding factor in a co-operative. Fear of corruption is not an often quoted reason for not joining (4 %), neither is late payment (6 %). The most quoted reason for not joining is 'don't like it' (19 %). This is a rather vague answer, the respondents could in reality have reasons for not joining both linked to organic requirements, ideology or other factors.

Survey on production costs

The survey and the qualitative study from Chiapas revealed that there are several reasons for joining or not joining Fairtrade and/or organic co-operatives, but the organic production requirements stand out as an important factor. The non members claimed that these requirements made membership unprofitable, but were contradicted by the members. An explanation could be that those who choose membership have certain prerequisites which make organic production more beneficial to them.

Several studies have found that organic coffee production implies more work than conventional (Gobbi 2000; Pérez Grovas 2000; Lyngbæk et al. 2001; Bray et al. 2002; Martinez-Torres 2006; Jaffee 2007; Gliessman 2008; Beuchelt and Zeller 2011). Some studies have also found that coffee production with chemical inputs generates higher yields than production with organic methods (Lyngbæk et al. 2001; Martinez-Torres 2006; Kilian et al. 2006). Other studies have also found that organic production generates higher yields than natural production, which is production with neither chemical inputs nor specific organic methods (Martinez-Torres 2006; Pérez Grovas 2000; Bolwig et al. 2009; Barham et al. 2011).

In order to find out more about the costs and benefits of organic production in Chiapas, a survey was organised by the author among organic and non-organic coffee producers from the municipality of Jitotol. The aim was to find out if there is a difference in the number of work hours and yields of organic and non organic producers, taking into account the different agricultural tasks performed by the different producers, including whether or not chemical inputs were used.

The interviewees were chosen in order to get a balanced sample of producers representing different categories.[7] A distinction was made between co-operative members (organic producers), non members using chemical inputs (chemical producers) and non members not using chemical inputs (natural producers), and also between producers with different coffee plot sizes.[8]

Costs of conversion to organic production

In order to become a co-operative member, the producers have to become organically certified, which implies compliance to a set of requirements. The requirements for organic coffee production are listed as 39 different points in the standards document from the Mexican organic certifier organisation Certimex (Certimex 2007). Most of the requirements have a direct relation with protection of the environment, but some have merely the purpose of securing the quality of the coffee, so that, according to a Certimex employee, there may be sales of organic coffee, and not just production.

Compliance with the organic requirements might imply undertaking certain activities. Converting coffee producers may have to change to coffee plants that are adapted to the local climate in order to be resistant to plagues and endemic diseases. Plants should also be renovated when they become too old, and pruned regularly. This is a Certimex requirement for maintaining continuity in production, and it is more related to quality production than to environmental protection. Organic coffee should also be grown under diversified shade trees, but since 90 % of the coffee grown in Mexico is already grown under diversified shade (Giovannucci and Juárez Cruz 2006), this requirement rarely generates extra activity for converting producers.

In order to avoid soil erosion, producers need to build terraces, and live and dead barriers. Live barriers are bushes planted closely together to stop the soil from running downhill, dead barriers are made of stones or soil. Also, to improve the contents of the soil in terms of nutrients and micro organisms, organic producers should apply compost. The compost should be made of recycled material such as the fruit flesh from the coffee berries, leaves and weeds, as well as ashes and manure from cows. Problems with plagues and diseases should also be solved with organic methods. To some extent pruning, shade

[7] It turned out to be difficult to find producers with more than two hectares, and only one producer was found with more than five hectares. The average coffee plot size for the sample is 1.24.

[8] A pilot for the survey was done in the late spring of 2007. The survey itself was done during the summer and autumn of 2007.

Table 5 Costs of conversion to organic production

Variable	Obs	Mean	Median	Min	Max	Did activity (%)
USD used on fermentation tank	28	39	0	0	400	50
USD used for construction material	28	191	0	0	1,500	36
Hours spent making filtration pit	29	17	0	0	150	28
Hours spent making fermentation tank	29	48	27	0	200	66
Hours spent making drying patio	29	230	54	0	3,000	69
Hours spent on training courses	29	6	0	0	135	21
Hours spent on soil conservation	29	261	153	0	2,432	86
Total hours spent all 3 years	29	800	384	0	4,648	100

Source: Data collected in Jitotol 2007

regulation and weed control will prevent these problems, otherwise methods such as insect traps, natural preparations and manual control should be applied. To avoid plagues and diseases it is important that all the berries are removed from the trees during harvest.

There are also requirements concerning processing. The majority of coffee producers in Chiapas use the wet processing method, which means that the coffee beans are fermented in water before they are dried. Organic coffee should be fermented in boxes or tanks and not in streams or springs, which would cause pollution. The water used for the fermentation should afterwards be deposited in a pit so that it will be filtered before going into the rivers. The beans should be dried with solar energy on patios or roof tops, and not with mechanical tumble dryers.

A producer joining an organic co-operative has to wait for 3 years before receiving the full organic coffee price. This is a general rule that applies regardless of whether the producer has previously used chemical input or not. In the survey, the organic producers in Jitotol were asked how much time and money they had spent during the 3 years of conversion. An overview is given in Table 5. Most of the producers did the soil conserving activities, and the majority spent time on the construction of fermentation tanks and drying patio, while <30 % took training courses and made filtration pits. Those interviewed were also asked about purchases of new coffee plants, but nobody said they had done this.

The table shows that on average producers converting to organic spend both a substantial amount of money and time in the conversion phase. However, there is a lot of variation among the producers, and the high average is to some extent driven by outliers. Many organic producers have not performed all the tasks. The reason could be that they had already done what was necessary for certification, but they could also be shirking, although shirkers risk expulsion. As for the financial costs, many producers said they had received financial support through the co-operative for the construction of the necessary equipment, therefore their costs were 0.

There is little correlation between land size and the time and money spent on the conversion to organic production. This indicates that performing these activities has fixed costs, which means that they are less worthwhile for the smallest producers than for the larger ones.

Comparison of yearly costs and yields for organic, natural and chemical production

A comparison of average work hours spent on coffee related activities by organic, natural and chemical producers can be seen in Table 6 below.

The organic producers spend on average more than twice as many hours in total as the natural producers in their coffee fields, but only 24 % more hours than the chemical producers. Organic producers spend significantly more time on activities related to the organic requirements: composting and fertilising, renovating plants and soil conservation (terraces and barriers). The fact that the organic producers spend more time on harvesting is on the one hand related to the quality requirement which makes it necessary to pick only the ripe berries and therefore use several rounds. But it may also be part of a natural plague control strategy. Taking off all the berries to the last, including the low quality ones, prevents different coffee plagues from spreading. When comparing the use of labour, the organic producers have a significantly higher average than the natural producers, but only during the harvest period. The chemical producers on average use more labour than both the organic and the natural producers.

Concerning yields, Table 6 shows that the mean coffee production per hectare for the last 3 years is higher for the organic producers than for the natural, but lower than for the chemical producers. However, the differences are not statistically significant. This means that also the chemical producers are not significantly more productive than the other groups, which is interesting, since they spend a substantial amount (170 USD per hectare on average) on fertilizers.

Table 6 Differences between natural, organic and chemical producers: average per hectare work hours, use of labour and coffee yields

	Natural	Organic	Chemical
Number of observations	24	29	27
Average plot size	1.7	1.3	1.1
Hours spent on making compost and fertilizing	19	246[ab]	46
Hours spent on weeding	164	207	152
Hours spent on pruning and plant bending (agobio)	159	213	128
Hours spent on renovation	19	91[ab]	23
Hours spent on terraces	24	90[a]	56
Hours spent on harvest	997	2048[a]	1,486
Mean total work hours per year	1,241	2,732	2,202
Number of family members working normal period	2.5	3.5	3.9
Number of employed working normal period	0.3	0.6	0.6
Number of family members working during harvest	3.1	4.7[a]	5.1
Number of employed working during harvest	1.9	3.5[a]	4.5
Coffee yields, mean last 3 years (in kg)	367	415	383
Coffee produced per hour worked 2007 (in kg)	0.3	0.21	0.22
Coffee price received per kg 2007 (USD)	1.48	1.75[ab]	1.44
Income from coffee sales 2007 (USD)	507	674[a]	610
Net income from coffee sales 2007 (USD)	507	674[ab]	440
Net income per hour worked (USD)	0.42	0.35[b]	0.22

Source: Data collected in Jitotol 2007

[a] Statistically significantly (at 10 % level) different from natural producers

[b] Statistically significantly (at 10 % level) different from chemical producers

The average yield per hour worked is highest for the natural producers, while the organic and chemical producers have similar levels. But neither of these averages are significantly different from the others. The price received by the organic producers is higher than for the other groups, and this difference is statistically significant. The net income per hectare of the organic producers is significantly higher than that of the natural producers, and when expenses on chemical fertilisers are deducted it is also significantly higher than the income of the chemical producers. Net income per hour is highest for the natural producers, and lowest for the chemical producers. It is important to remember that these results are based on prices from 2007. With lower international coffee prices, a larger difference between organic/Fairtrade and conventional prices would be expected. Since 2007 international prices for Arabica coffee have gone up, and although they have later decreased again they are still higher than in 2007. Hence it is not likely that there is a larger economic benefit from co-operative membership today.

The reason why organic production does not give higher returns to hours worked could be found when looking at the types of activities performed by the different groups. Organic producers spend significantly more time on fertilizing with compost, renovation and soil conversation, which are activities that are mainly meant to increase either the quality of the coffee, or the long term sustainability of the land. Renovation, for instance, means cutting down old trees that do not produce quality coffee anymore. This may decrease yields in the short term since the new plants will not bare fruits before 3–4 years. Also, the non-organic producers perform the more directly productive activities such as pruning and weeding almost to the same extent as the organic. This can explain why there is not more difference between the 3 groups concerning yields. However, it may be the case that in the longer term renovation and soil conservation activities will pay off, and provide higher yields for the organic producers.

Who cooperates?

During field research, coffee stakeholders in Chiapas were asked about the difference in the characteristics of co-operative members and non-members. Many saw the members as more hard-working, and with a positive attitude to organic coffee cultivation. Small coffee plot sizes were seen as an advantage for organic cultivation, since most of the work was done by family members. But only to a certain point. Those with <0.5 ha of land were said to be more likely to leave the co-operative, and one

co-operative would not even let producers that small enter as members. The reason given was that the production was too small, and the coffee was not well cared for.

The study on production costs shows that the activities where organic producers make an extra effort, such as composting, making barriers and renovating plants, have more fixed costs than other activities. This means that these activities are less worthwhile for the smallest of the producers. In addition members spend on average 20 h per year on co-operative meetings. Due to these fixed costs the smallest producers may not find it worthwhile to become co-operative members. On the other hand the larger producers may find that labour costs increase too much due to the production requirements.

Stakeholders interviewed during field research claimed that having more children was an advantage for co-operative members, since they could help with the harvest. Hiring people implies expenses in terms of monetary outlays: in 2007 a labourer was paid on 6.1 USD per day during harvest and 5.3 USD the rest of the year. Often the producers need to take up high interest loans to finance the salaries of the coffee pickers during harvest. This means that the availability of labour within the family could increase the profitability of being a member of a co-operative, and that producers with more working household members are more likely to join. In relation to this, the alternative costs of labour for the producers and their family members must be considered. According to a study from Chiapas by Barham et al. (2011) the returns from labour opportunities outside coffee are better than those in Fairtrade and organic coffee. But in Jitotol there are few job opportunities except during the harvest when there is a demand for coffee pickers. The remaining option is to migrate for work, either to nearby urban centres which are about half a day's journey away, to larger cities in Mexico or as far away as the US. Migration, especially to the US, has become highly risky over the last years with the violence of the drug wars. We can nevertheless assume that different households have different valuations of the migration options. If they consider migration and earning money elsewhere as an attractive alternative to working in the coffee field, then the likelihood of joining a co-operative decreases. But if the option is leisure, then co-operative membership is economically more favourable. A different question to consider is whether demand for coffee labour prevents young family members from attaining a higher education level, which in the long term could be a more beneficial time investment, as pointed out by Barham et al. (2011). However, as it seems to be mostly during the harvest period that there is extra demand for labour, the survey does not provide clear evidence that this is a problem in Jitotol.

The previously mentioned IAI financed household survey is based on a random sample of co-operative members and non-members from Jitotol in 2007. This data can be used to look for statistical differences between members and non-members. A number of variables from the data set are selected and analysed both by mean comparisons of members and non-members, and probit analysis.

We want to see which factors influence the likelihood of being a co-operative member. Coffee area, number of household members and number of working household members are, as we have seen, likely to influence because of the fixed costs of organic cultivation, and the extra work required. We also include in the analysis characteristics of the household head: Age, gender, whether he or she ever attended school, and years of experience as a coffee producer. These variables are relevant as control variables, and also they might say something about the producers' skills, which are necessary to produce organic coffee and which therefore may influence the probability of being a member. Other relevant variables are whether or not coffee is the principal source of income for the household, which might increase the likelihood of being a co-operative member, and the road distance to the municipality head, where both the co-operative and the intermediary purchasers have their warehouses. The last one is relevant for several reasons, one is that the villages further away are at a higher altitude, and it is therefore easier for them to produce the quality coffee required by the co-operative. Another is that members who live closer to the co-operative may know it better and therefore trust it more. Whether or not the producer owns a radio is relevant because it reflects the wealth level, or possibly how well informed the producer is, both of which may influence the decision to join or not.

Table 7 presents the summary statistics of the sample households and compare the means for the members and the non-members.

The table shows that co-operative members on average have half a hectare more coffee area than non-members, or more than 50 % more. Looking more closely at the data, it can seem like it is particularly the producers with coffee plot sizes measuring 0.5 ha or less that do not join the co-operative: 9 % of the co-operative members have 0.5 hectare or less, versus 32 % of the non-members. Between 0.5 and 1 hectare the two groups have a more similar representation: 44 % of non-members and 40 % of the members have areas of this size. These are also very small scale farmers hence numbers from this survey does not prove that organic cultivation excludes small scale producers. But it seems to be the case that the smallest of the small producers do not find co-operative membership worthwhile.

The co-operative members have more household members, and more people in the household doing work that

Table 7 Mean comparison coffee producers in Jitotol by co-operative membership status

Variables	Mean		
	Members (n = 64)	Non-members(n = 90)	Mean-comparison test
Area of coffee plot (hectare)	1.54 (1.11)	1 (0.67)	3.77***
Number of household members	6.28 (0.31)	5.78 (0.2)	2.14*
Number of people in household working	2.33 (1.33)	1.78 (0.81)	3.18**
Household head gender (1:male)	0.89 (0.04)	0.9 (0.03)	−0.19
Household head age	45 (1.8)	39 (1.56)	2.34*
School attendance (1:has attended)	0.55 (0.06)	0.64 (0.05)	−1.22
Experience as coffee producer (in years)	20.81 (11.8)	16.13 (9.32)	2.74*
Coffee is principal source of income	0.80 (0.41)	0.86 (0.35)	−0.95
Owns a radio	0.64 (0.06)	0.48 (0.05)	2.01*
Road distance to municipality head	19.5 (3.09)	14.47 (3.45)	9.3***

Source: Survey financed by the Inter-American Institute for global change research (IAI) 2007

Standard deviations are given in brackets. Mean-comparison test gives t-values

*** Significant at 1 % level

** Significant at 5 % level

* Significant at 10 % level

brings income to the family. Co-operative members are on average slightly older than non-members, and have more experience as coffee producers. The co-operative members are more likely to own a radio, and on average they live further away from the municipality head. There is no significant difference in school attendance, whether the household head is male or female or whether or not coffee is the principal source of income.

In order to establish which characteristics of producers correlate with the probability of being member of a co-operative, a probit analysis with marginal effects (Wooldridge 2002) is performed. The analysis was carried out in Stata, which provides an estimation of the effect of an infinitesimal change in the continuous variables on the probability of being a member of the co-operative. For dummy variables it reports the discrete change in the probability. The results are presented in Table 8.

We observe that a larger coffee plot size increases the likelihood of being a member of the co-operative, but the result is significant only at the 10 % level. Attempts at including quadratics of coffee plot size together with the linear ones failed to give robust results, hence there seems to be no support in these data sets that producers with plot sizes above a certain size are less likely to be co-operative members. This is possibly because all the coffee plot sizes in the sample are small.

There is also a positive correlation between co-operative membership and the number of people working in the household, significance is here at the 5 % level, which is stronger than for the coffee plot size. Hence the results support the hypothesis that producers with more available work force in the family are more likely to be members of organic co-operatives. Gender, education, age, and the number of years as coffee producers have no significant impact on the probability of being a member of the co-operative. Neither has having coffee as the principal source of income. Owning a radio increases the likelihood of being a member. However, we do not know if this is because co-operative members earn more than non-members and therefore can afford to buy a radio, or because producers owning a radio are more likely to join the co-operative, either because they are more wealthy and can

Table 8 Results probit analysis from Jitotol (marginal effects) (1: member; 0: non member)

Variables	Estimates
Area of coffee plot (hectare)	0.15* (0.08)
Number of household members	−0.01 (0.02)
Number of people in household working	0.11** (0.04)
Household head gender (1: male)	−0.12 (0.17)
Household head age	−0.005 (0.005)
School attendance (1: has attended)	−0.08 (0.1)
Experience as coffee producer (in years)	0.005 (0.005
Coffee is principal source of income	−0.13 (0.14)
Owns a radio	0.18* (0.1)
Road distance to Municipality head	0.09*** (0.01)
N	153
Pseudo-R^2	0.38

Source: Survey financed by the Inter-American Institute for global change research (IAI) 2007

*** Significant at 1 % level

** Significant at 5 % level

* Significant at 10 % level

afford the entry costs, or because their radio makes them better informed about for instance coffee prices and the situation for coffee producers.

"Road distance to municipality head" is positive and highly significant, meaning that producers living further away are more likely to be a member of a co-operative. This is possibly related to the fact that the co-operative requires a high level of coffee quality, which is easier to obtain at higher altitudes. The municipality head of Jitotol is at a low level, and the further away the producers live, the higher they are above the sea level. It could also be the case that producers who live closer to the municipality head find it easier to bring their coffee there and choose among the different intermediaries who operate from there. Producers living further away are to a larger extent obliged to buy from the intermediaries arriving with their pick-up trucks, and may therefore have a preference for the co-operative. Another explanation is a clustering effect, that the producers living in the village furthest away have been influenced by their neighbours to join the co-operative.

Conclusion

The intention of the Fairtrade model is to "offer farmers and agricultural workers in the global South better prices, stable market links and resources for social and environmental projects" (Raynolds 2009). Previous studies have found that both the Fairtrade and the organic labelling systems provide small scale coffee producers with benefits such as better prices, different collective goods and empowerment through the strengthening of grass roots organisations (Raynolds et al. 2004; Bacon 2005; Ruben 2008). However, there are many producers who, although given the opportunity, decide not to become members of Fairtrade and organic co-operatives. This study is the first one to search for an explanation to this seemingly paradoxical situation by considering systematically both the material and immaterial costs and benefits of Fairtrade and organic co-operative membership.

The results of the study confirm that Fairtrade and organic labelling provide benefits to highly marginalised producers living near extreme poverty. But co-operative membership also has certain costs, among which the organic production requirements are the most important. This study finds that organic production does require more hours of work than natural production or production with chemical fertilisers, and that the net income per hour worked is lower for the organic producers than for the natural producers, which confirms the results of previous studies (Pérez Grovas 2000; Bray et al. 2002; Jaffee 2007; Beuchelt and Zeller 2011). The explanation for the comparatively low profitability of organic production is that the agricultural activities where organic producers spend significantly more time are not the ones that increase yields in the short term. The fact that the natural and chemical producers perform many of the directly yield increasing activities almost to the same extent as the organic also reduces the difference in yields between the three types of producers. However, the costs and benefits of the organic option will differ among different producers, and those producers with more free family labour and who live at higher altitudes have lower costs and higher benefits. Also, although co-operative membership is found to be beneficial for very small scale producers, producers with coffee areas of <0.5 ha are less likely to join because of fixed costs.

The study indicates that for the producers in Chiapas, the premium for certified coffee is not a "free lunch" offered to a few lucky ones. The higher price provided by the Fairtrade and the organic market may be more accurately viewed as compensation for many extra hours of work spent in the coffee fields, and it seems to be the case that the higher price offers are necessary for the co-operatives to be an attractive alternative to the "coyote". Considering the aims of the Fairtrade system to broaden and deepen its impact on marginalised producers (Murray et al. 2006), it may seem counter intuitive to have restrictions on membership which make it less attractive for some producers. But, firstly, this study confirms that producers who join the co-operatives are indeed small scale and highly marginalised, and they are undoubtedly in the target group of the FLO. Secondly, the organic requirements have an important function, as they assure the production of quality coffee with the organic label, for which there is demand, and which generates a higher price (Kilian et al. 2006; Barham et al. 2011). If the co-operatives did not impose the organic requirements, they would not have been able to provide the same quality coffee, which would make marketing more difficult. One of the main challenges for Fairtrade coffee has been to improve its quality (Murray et al. 2006). We also need to take into account that the supply of Fairtrade coffee is much larger than the demand (Murray et al. 2006; Ruben 2012), while this is not the case for organic coffee (Ruben 2012). This means that co-operatives that are only Fairtrade certified get a lower price because they do not get the organic premium, and they sell a larger share of what their members deliver as conventional, non-labelled coffee. If these co-operatives were to stay at a size corresponding with their sales of labelled coffee, they would have to find restriction methods other than organic production requirements. One such restriction method would be to close the co-operative entirely to new members. But, it would not then be able to have a beneficial effect on the competitive situation and the prices offered by intermediaries (Sexton 1990; Milford 2012). The co-operatives could also restrict membership by

imposing a higher entry fee, but this would to a larger extent exclude the producers with the least financial resources. The organic requirements thus seem to fulfil several functions: they provide ecological and health benefits, market access for quality coffee production with a corresponding higher price, and in addition the cooperatives avoid the problem of overproduction of Fairtrade certified coffee.

But although the organic production requirements may work as an entry barrier to joining co-operatives, this study finds that there are also other aspects of the co-operatives which influence the producers' decision on whether to join or not. In the case of the particular co-operative studied here, political ideology, seen as an important factor for co-operative success (Raynolds et al. 2004), was also a factor deterring many from entering. Another important reason for not joining is the lack of trust, which is related to co-operatives having a reputation for fraud and mismanagement. Preference for the payment system of the intermediary may also explain the producers' choices. The "coyote", although he has a reputation for cheating on price, weight and quality, can also offer what some producers need: an immediate payment, and in some cases a loan to cover expenses for the harvest.

It is important to keep in mind that as a small scale coffee producer in Chiapas it is difficult to obtain a very large income, even with Fairtrade and organic premiums. But as long as there is a lack of other safe job opportunities, joining a certified co-operative is for many a better option than not. And as long as there is demand for organic coffee among consumers, Mexican co-operatives and their supporters should continue to try to encourage small scale producers to become organically certified. This study has shown that the organic requirements are barriers to entry, but that there also are other aspects that deter producers from joining the co-operatives, and which may be worked upon. Co-operative membership could thus be encouraged by building up trust in co-operative organisations, and not allowing for discrimination of certain producers. This points to the importance of supervising co-operative leaders, as is being done by FLO. Improving their credit schemes and payment systems may also increase the attractiveness of the co-operative option. This may also provide the co-operatives with more organisational and economic strength, while staying true to the organic principles.

Acknowledgments I wish to thank Stewart Diemont, Angel Alvarez Martínez, Pedro Ramirez Lopez, and Certimex for help with data collection. I would also like to thank Kjetil Bjorvatn, Erik Sørensen, Gudbrand Lien, and Sophie Spencer for helpful comments. The survey reported in this study was financed by the Inter-American Institute for Global Change Research (IAI). I would also like to thank El Colegio de la Frontera Sur for hosting me during 10 months.

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