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Cooperation, Fair Trade, and the Development of Organic Coffee Growing in Chiapas (1980–2015)

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Abstract: In present day Mexico, Chiapas is the state that produces the greatest amount of coffee, with both the highest number of producers and the largest cultivated area. A significant part of this production is organic coffee. Organic coffee growing emerged as an important alternative for small producers who previously devoted themselves to the production and commercialization of conventional coffee but found it increasingly difficult to make a living. The expansion of the cultivation of organic coffee was closely related to the processes of peasant mobilization that started in the 1970s when the agricultural model of the Green Revolution went into crisis. This article analyzes the expansion of organic coffee growing in Chiapas and its connection with the process of the collective organization of small coffee producers in cooperatives. In these cooperatives, an alternative model of production was established based on the peasants' traditional knowledge. We argue that the development of organic coffee growing was strongly linked to the long tradition of community life, communal management of land and natural resources, and collective action. We also underline the resilience of the peasants' traditional farming systems and their contribution to a more sustainable and environmentally respectful agriculture.

Keywords: organic coffee growing; collective action; cooperatives; Chiapas; Mexico

1. Introduction

Mexico is one of the most culturally and biologically diverse countries in the world, especially in its southern territories below the Tropic of Cancer. Chiapas, Oaxaca, and Veracruz have the greatest number of priority regions for biocultural conservation in Mexico and are home to most of the country's indigenous population (Figure 1). These states have the country's best-preserved forests, traditional farming systems that maintain a great genetic variety, and an agrobiodiversity and cultural diversity that overlap with the social ownership of the land. With Michoacán, these three states account for a third of the total number of *ejidos* and *comunidades* where the rules of access, possession, and transmission of land are laid down by the community. Chiapas has currently around one third of Mexico's coffee producers and also around a third of the country's land given over to coffee production. The trio of Chiapas, Oaxaca, and Veracruz account for roughly 75% of the producers and the land devoted to this crop in the country (Table 1). Mexico is one of the ten largest coffee producers in the world today.

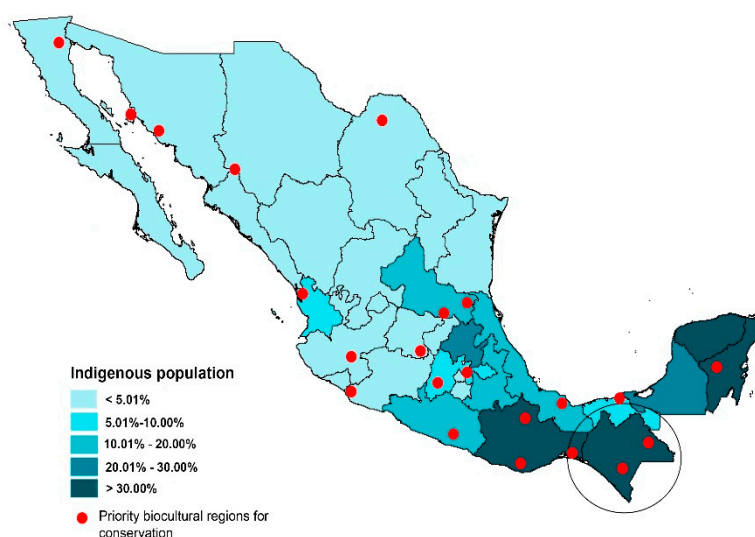


Figure 1. Indigenous population and location of priority biocultural regions for conservation in Mexico (Chiapas shown in the circle). Sources: Based on CDI [1] (% indigenous population) and Toledo, Boege, and Barrera-Bassols [2] (priority biocultural regions).

Table 1. Number of coffee producers and total extension of coffee cultivation in Mexico (2011).

State	Number of Producers	%	Number of Hectares	%
Chiapas	178,928	35.4	253,986	36.4
Oaxaca	104,432	20.7	133,392	19.1
Veracruz	88,782	17.6	140,409	20.1
Puebla	48,421	9.6	68,101	9.7
Guerrero	21,869	4.3	41,746	6.0
Hidalgo	34,868	6.9	24,224	3.5
San Luis Potosí	18,336	3.6	14,586	2.1
Nayarit	5266	1.0	16,674	2.4
Jalisco	1231	0.2	2230	0.3
Colima	836	0.2	1314	0.2
Tabasco	1039	0.2	870	0.1
Estado de México	1305	0.3	862	0.1
Querétaro	317	0.1	230	0.0
TOTAL	505,630	100	698,626	100

Sources: Based on data provided by the Asociación Mexicana de la Cadena Productiva del Café, A.C.

Part of this coffee production is obtained using ecological cultivation techniques. A report produced in 2005 estimated that in Chiapas, about 14% of coffee producers (25,000 out of 175,757) and 19% of the total extension of land devoted to coffee (45,763 out of 242,689 ha) applied ecological methods, and that Chiapas concentrated 59% of all the land devoted to organic coffee growing in Mexico (45,763 out of 78,200 ha) [3]. The organic coffee producers are very small farmers who exploit a mean area of 1.8 ha, ranging from 0.5 ha to 5 ha in 98% of cases [4].

The essential features of organic coffee cultivation are the rejection of the use of chemical fertilizers and other chemical inputs such as pesticides, herbicides, fungicides, and insecticides, the respect for natural processes, and the use of production techniques to improve productivity while preserving the biodiversity of agro-ecosystems without altering natural cycles and rhythms [5]. In Mexico, organic coffee is produced under the shade of trees in a system of polyculture with very little dependence on external inputs. The design of these spaces aims to achieve a positive interaction between the cultivated plants and weeds. Agro-ecosystems, in which different types of crops protect each other, repel pests more easily, create niches of moisture, and restore soil nutrients. The sustainability of

agro-ecosystems depends on the successful combination of the different elements of the polycultures and on a very low level of external inputs [6] (pp. 42–43).

At the end of the twentieth century, Mexico became the world's main producer and exporter of organic coffee, and the state of Chiapas was its largest producer. In 1986, cooperatives in Chiapas began the process of changing from conventional coffee to organic coffee cultivation [7]; in doing so, they followed in the footsteps of the *Unión de Comunidades Indígenas de la Región del Istmo* (UCIRI) in the neighboring state of Oaxaca [8], which was a pioneer in both Mexico and Latin America in the production and marketing of organic coffee. These new cooperative organizations were devoted to the production and commercialization of organic coffee and were officially certified with seals of guarantee. They spread widely in Chiapas during the 1990s, and numbered more than 100 by the first decade of the twenty-first century, a significantly higher figure than in Oaxaca, Veracruz, and Puebla, the other main coffee growing states in Mexico (Table 1). Their number was also significantly higher than in other neighboring coffee-producing countries [9–13]. In 2004, 26 cooperatives in Guatemala were participating in the Fair Trade movement, 20 in Nicaragua, 19 in Honduras, 13 in Costa Rica, and seven in El Salvador [10] (p. 43), but the state of Chiapas had nearly 100 cooperatives in the coffee sector alone. In our view, the dynamism and the prominent role of the cooperative movement in Chiapas can be attributed to the long tradition of community life based on the social ownership of land and collective action, which paved the way for the peasant mobilization in the 1970s and later for the spread of cooperatives, as we argue in the following sections.

As we show in this article, organic coffee production emerged in Chiapas as a viable alternative for small producers who had great difficulty in making a profit from the production and commercialization of conventional coffee. The expansion of organic coffee production was closely related to the processes of peasant mobilization that started in the 1970s, when the agricultural model of the Green Revolution went into crisis. Organic coffee growing was able to expand rapidly in Chiapas because its productive methods were in close harmony with the traditional knowledge of the small indigenous producers.

The aim of this article is to analyze this process and show its strong connections with the spread of cooperatives, which were set up in the 1980s and reached their greatest expansion in the 1990s and 2000s, when the largest numbers were created. The present article is the first survey of its kind in Chiapas. We compiled data from different sources, including the cooperatives themselves, as there were no other reliable statistics to trace their evolution. After a long stay at one of these cooperatives, the first author carried out field work in order to compile data and interviewed leaders of several coffee cooperatives. These interviews were conducted in December 2016 with the board of directors of *Tzotzilotic Tzobolotic*, *Tiemelonlá Nich Klum*, *Unión de Ejidos San Fernando*, and former coordinators of *Unión de Productores Orgánicos Beneficio Majomut* and *Indígenas de la Sierra Madre de Motozintla* (ISMAM), as well as advisors of the *Coordinadora de Pequeños Productores de Café de Chiapas* (COOPCAFE), and in May 2017 with the coordinators and technical boards of COOPCAFE, *Lumal Lajñojtyeel*, *Paluch'en*, *Tiemelonlá Nich Klum*, *Unión de Ejidos San Fernando*, and *Ts'umbal Xitalhá*, the founders of *Tzeltal Tzotzil*, *Jotiquetz*, *Sch'Litesel Ka'teltic*, and *Unión de Ejidos de La Selva*, and the coordinators of *Tzotzilotic Tzobolotic*. The interviews were mainly semi-structured and applied methods from sociology and oral history [14,15] (chapter 7). Reports produced by cooperatives, rural development studies, agricultural censuses and statistics, and articles in the local press were complementary sources, and a review of the existing literature was also performed.

In accordance with some agroecological studies [16–21], we noted the strong sense of identity existing in these organizations, their link to the agroecosystem, and their commitment to its conservation. We also noted the capacity of self-organization of these entities based on their social cohesion and strong sense of community, the internal trust based on the social capital created during a long tradition of collective management of natural resources, their adaptation to the local environment, and the collective participation in the design of their rules, which Elinor Ostrom highlighted as the key factors in the success of common-pool resource institutions [22–24]. Robert Putnam also stressed

the vital role of social capital in generating virtuous equilibria for cooperation and for the solution of collective-action problems [25,26].

The economic theory literature and several studies in economic history have underlined the crucial importance of social capital in the emergence and development of cooperatives [27–30]. However, other studies have pointed out that social capital alone is not sufficient for the development of cooperatives [31], and that the role played by external institutions (and especially the state) is essential for their development and satisfactory performance, especially with regard to providing solutions for their financial and capitalization problems [32–37].

In this article, we show how the cooperatives in Chiapas faced these problems (above all, the lack of capital), and also focus on the strengths of these organizations, which were grounded in trust-based interpersonal relations and social homogeneity. We argue that this cooperative development was inspired by a long tradition of community life, communal management of land and natural resources, and assembly-based social organization. According to the estimates of the *Comisión Federal de Mejora Regulatoria*, in Chiapas, 75% of the coffee producers live in *comunidades* and *ejidos*, most of them in poorly communicated, marginalized mountain areas [38]. In Chiapas, this system of social ownership of land still covers 4.36 million hectares, or 59% of its territorial extension [39,40]. We highlight the contribution of these cooperatives to achieving sustainable and environmentally respectful rural development linked to the traditional farming systems of the indigenous population. This development has received considerable institutional recognition at an international level [41].

The rest of the article is organized as follows. In Section 2, we explain how small producers in Chiapas adopted organic coffee farming as an alternative to the commercial deterioration of traditional crops and the evolution of the price of conventional coffee. In the following section, we examine the peasant mobilization that underlies the process of the collective organization of small coffee producers in cooperatives. Then, in Section 4, we analyze the development of cooperatives between 1980 and 2015 and finish with some brief conclusions.

2. Organic Coffee Growing as an Economic Alternative for Small Producers

In the 1960s, small family farms were hard hit by a drop in the price of corn due to the increase in production in the United States. Between 1963 and 1972, the price of corn fell in real terms by 33% [42]. This abrupt and prolonged fall had a profound effect on Mexican corn production and triggered migration to the large cities, mainly Mexico City, Monterrey, Guadalajara, and to the northwest—home to the country's most extensive farms.

In response to the commercial deterioration of the traditional crops of beans or corn, peasants looked for other produce that could provide them with a regular income. Coffee was the one that provided the best return. However, international coffee prices suffered a sharp fall in the late 1980s and entered a downward spiral that lasted until 1994, when a strong frost in the producing areas of Brazil and the berry borer plague in Colombia pushed prices upwards again [7]. The price of 48 dollars per 100 pounds in August 1992 was the lowest recorded in five decades. The price later rebounded due to poor harvests in the two main producing countries, but in 1998, it began to fall again and reached a historic low in 2002 (Figure 2).

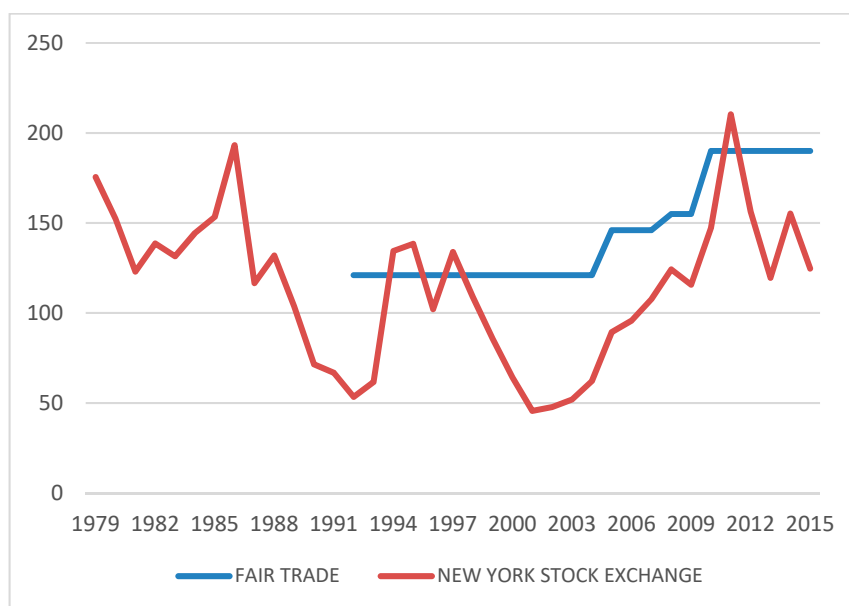


Figure 2. International prices (1979–2015) and Fair Trade prices (1992–2015) of coffee (USD per 100 pounds, annual averages at current prices). Source: Based on data provided by the International Coffee Organization. Available online: http://www.ico.org/new_historical.asp (accessed on 17 April 2018) and Sánchez Juárez [43] (p. 110).

The downward trend of coffee prices coincided with the liberalization and deregulation introduced by Carlos Salinas de Gortari during his presidency (1988–1994), which caused severe effects on the Mexican countryside: the abolishment of government agencies, including the *Instituto Mexicano del Café* (INMECAFE); the modification of Article 27 of the Constitution, which had protected the communal lands from sale or lease operations by mercantile companies since its passing in 1917; and the signing of the North American Free Trade Agreement (NAFTA), which from 1 January 1994 obliged Mexican peasants to compete with the United States and Canadian agriculture in a position of manifest inequality. President Salinas de Gortari’s neoliberal program signaled the end of the development policies and placed strict limitations on the capacity for social regulation that the state had held for half a century [43] (pp. 44–53).

The state stopped supporting the production of poor peasants and provided aid only in the form of welfare programs, which were restricted to the poorest sectors of the rural population [44]; at the same time, the role traditionally played by the corporatist syndicate *Confederación Nacional Campesina* as mediator between the government and the peasants was seriously weakened.

After the Second World War, the Mexican government had created a series of state agencies to regulate specific agricultural markets (coffee, sugar, henequen, tobacco) and to carry out agro-industrial operations. Some of these official agencies became monopolistic, both in domestic markets and exports and in industrial and commercial activity as well [45] (p. 87). In the case of coffee, the regulatory function was taken on by the National Coffee Commission created in 1949 and was transferred in 1958 to the Mexican Coffee Institute (INMECAFE).

In 1973, INMECAFE acquired broad-ranging competences covering technical assistance, agronomic research, financing of coffee growing, production of industrial machinery, procedures for obtaining export licenses, and the allocation of export quotas to producers. It was also Mexico’s representative at the International Coffee Organization, the crop’s only international commodity organization [46] (pp. 32, 131). At the local level, the state promoted the creation in each *comunidad* or *ejido* of the *Unidades Económicas de Producción y Comercialización* (Economic Units of Production and Commercialization, or UEPCs). Even though they were not a legally recognized entity, they brought together the coffee producers in each locality and were in charge of scheduling production,

receiving inputs and credits from INMECAFE, planning the harvest, selling the coffee to INMECAFE for processing, and paying producers for the coffee delivered. The UEPCs were the mechanism through which INMECAFE promoted a technological package based on monoculture and the use of chemical inputs for soil fertilization and for the control of weeds, pests, and diseases [7]. INMECAFE was operational until 1989, when it began to abandon its functions. In 1993, it went out of existence like other state agencies in Mexico and other Latin American countries following the recommendations of the International Monetary Fund and the World Bank. After the disappearance of INMECAFE, some UEPCs set up as cooperatives with the intention of carrying out the whole coffee process autonomously.

Discontent among small producers regarding the functioning of INMECAFE started to spread in the late 1970s. They complained about the irregular handling of export quotas, bureaucratic inertia, and the lack of transparency in the pricing and administration of resources [47]. Fertilizers, which were initially provided free by INMECAFE, were later charged to producers when the international coffee price began to fall in the late 1970s (Figure 2), and the loss of fertility due to the intensive cultivation made their use ever more necessary.

Among other reasons for the discontent were the abusive practices of intermediaries (known colloquially in the sector as *coyotes*) who took advantage of their oligopsonic position to set prices below the market rates and regularly cheated peasants regarding the quality or the quantity of the coffee they delivered. Preventing such fraudulent activity was difficult given the indigenous producers' ignorance of the marketing circuits, the language barrier (an especially significant factor in Chiapas), their lack of transport, and the deficient road network. Moreover, due to the peasants' urgent need for money and their inadequate storage facilities, the crops were sold immediately regardless of the market conditions. Often, the farmers even sold the part destined for their own consumption, which they then had to buy at higher prices. As credit was generally granted at exorbitant rates and under onerous conditions, the peasant families were in a situation of permanent indebtedness, which further weakened their negotiating position with the intermediaries.

In the coffee sector, the bargaining power of large corporations increased further when technical advances allowed large transnational roasters to replace coffee from one country with coffee from another, offering similar organoleptic characteristics [48]. The difficulties for producers worsened in 1989 due to the non-renewal of the International Coffee Agreement. The world coffee market operated through a system of annual coffee export quotas established by the Economic Agreement of the International Coffee Organization, a London-based institution established by the International Coffee Agreement that had been signed by the majority of the coffee-producing countries and the main consumer countries. The quotas were meant to allow the supply to be adjusted to worldwide demand so as to keep the price within a certain range. After the suspension of the International Coffee Agreement, the fall in prices continued and lasted until the middle of the following decade (Figure 2). In September 1993, the Association of Coffee Producing Countries (ACPC) was created to coordinate the policies of the member countries in order to balance world supply and demand and to stabilize prices. The ACPC comprised 29 countries representing approximately 85% of world coffee production, but Salinas de Gortari's government ignored the interests of the small agricultural producers and decided not to join.

In this situation, the shift toward organic coffee growing organized by cooperatives and linked to the Fair Trade movement became an attractive economic alternative for small coffee producers. The comparison between the international coffee prices and the Fair Trade prices shown in Figure 2 can easily explain this shift. The Fair Trade prices were not only generally higher (with the sole exceptions of 1994, 1995, 1997, and 2011 in the series of 24 years for which we could obtain data), but also much more stable: 121 USD per 100 pounds from 1992 to 2004, increasing to 146 USD from 2005 to 2007, to 155 USD in 2008 to 2009, and 190 USD since 2010.

The most widely used species in Chiapas is *Coffea arabica* L. Inside this species, the larger varieties that adapt well to altitude, climate, soil, and are resistant to diseases are preferred to the smaller varieties that are generally used in intensive cultivation [21]. Tall varieties require pruning in order to

regulate their growth. The most commonly used varieties are *Typica*, *Bourbon* (including black bourbon, improved yellow bourbon, and improved red bourbon), *Mundo Novo*, *Pluma Hidalgo*, and *Maragogype*. Coffee trees are temporarily cultivated in seedbeds and nurseries before being planted in the plantation itself. This system is preferred to the cultivation of plants from fallen seeds in the plantation.

To protect the soil from water erosion, the coffee trees are arranged in contour lines perpendicular to the slope of the land, live and dead barriers are interposed, and terraces are built. These practices impede the passage of water runoff, thus reducing the speed of water and consequently the drag of the soil. The management of weeds contributes to the protection of the soil. The weeds present a low degree of interference with the coffee plants, as they are not present in the root zone [21].

The coffee trees are interspersed with various species of trees, shrubs, and plants, many of which provide shade. The degree of shade is regulated so that it is neither scarce (and would therefore fail to protect the plants from the sun or torrential rains), nor excessive (which would limit their potential growth). The density of trees and shade plants ranges between 50 and 150 units per hectare, although in warm and low altitude areas the density may be higher [21]. Coffee plantations under shade have become an important refuge for biodiversity since they can host as many species as undisturbed forest areas [49]. The types of species interspersed among the coffee trees vary from one region to another. During our field work, the species observed accompanying or shading the coffee plantations included ixpels, orchids, bromeliads, legumes of the genus *Inga* spp. (*chalum*, *jinicuil*, *coctzán*, etc.), fodder peanuts, fruit trees, timber trees such as mahogany and cedar, species of the genus *Commelina*, camedor palm, a tree called *xkok* by the native Tzeltal, epiphytic plants, and a variety of medicinal, ritual, and ornamental plants. Among the species that provide shade, the ones that fix nitrogen in the soil, such as *Inga* spp., *Erythrina* spp., and *Gliricidia sepium*, are of great importance. The agroecological advantages of organic coffee polyculture under shade are not just the maintenance of the forest canopy and the high degree of biodiversity but also the environmental services it provides, such as carbon sequestration, climate stabilization, prevention of soil erosion, and maintenance of pollinator communities [50].

After their ten-year study of an area of 300 hectares of organic coffee cultivation in the Soconusco region in Chiapas, Vandermeer et al. [51] described the intricate interactions between many species in complex organic coffee systems, which results in a dynamic regulation of various species of pests. The ecosystem provides autonomous or endogenous control of these potential threats. Additionally, to protect them from the berry borer plague (*broca*), various biological, physical, and cultural controls are used. The biological control is carried out by species such as the fungi *Beauveria bassiana* and *Metarhizium anisopliae*, African parasitoids, and parasitic nematodes [52]. The entomopathogenic fungi have the capacity to generate diseases in harmful insects as well as to create epizootics; that is, in suitable environmental conditions, the fungus emerges from the dead insect and undergoes a new cycle of infection within the insect population. Another practice consists in collecting the coffee fruits attacked by the berry borer plague from both the plant and the soil and introducing them in boiling water for five minutes. This slows down the reproduction and spread of the plague.

Organic fertilizer is obtained from traditional compost or compost obtained in vermiculture, which accelerates the transformation of organic waste [21]. According to the Chiapas organic producers, this type of fertilizer provides coffee plants with more abundant foliage and grains of more weight and quality [53]. Moreover, organic coffee production is much more sustainable than conventional coffee, taking into account the calculation of the balance of the nutrient flow in the agroecosystem and determining whether the nutrient inputs cover crop requirements and compensate for the output of nutrients through the crop. An experiment carried out in 1995 in two communities in the municipality of Chenalhó (Chiapas) by a coffee cooperative (*Unión de Productores Orgánicos Beneficio Majomut*) in collaboration with the Soil Laboratory of the Autonomous University of Chapingo showed that in organic coffee cultivation, 80% of the plots evaluated were sustainable from the point of view of nutrient balance, meaning that the production could be maintained indefinitely; in contrast, in the conventional coffee cultivation, only 40% of the plots turned out to be sustainable for 200 years or more and also provided very low yields [54].

Whereas the INMECAFE model, based on coffee monoculture, weakened the traditional virtues of the diversified peasant economy, the production of organic coffee recovered some of the elements of the traditional indigenous agriculture and managed to improve quality with the resources available in peasant farms and thus reduced exploitation costs [55]. A vast range of studies by technical staff, coffee sector executives, and academic scholars highlighted the economic, social, cultural, and environmental viability of traditional local knowledge and specifically its applicability to the production of organic coffee [7,50,56–60]. A feature that favored the warm reception of organic coffee farming in Chiapas was precisely the fact that it allowed the integration of ancestral techniques—such as the association of crops—and the traditional knowledge of the indigenous population, which had not been totally abandoned. As the small indigenous producers had been displaced to the more mountainous lands over the centuries, when coffee was introduced they still maintained their traditional agroforestry systems of polyculture. During our field work, many members of the technical staff from different cooperatives told us that the organic coffee growing techniques they presented during training sessions were often already known to the peasant farmers but had been neglected because of the implementation of the agricultural model of the Green Revolution.

However, to expand a model of organic coffee growing that revalued the peasants' traditional practices, the academic world played a particularly important position in promoting the role of the agroecological movement. In the 1970s, a group of Mexican agronomists involved in intensive field work began to challenge those who saw traditional agriculture as backward and in need of technological modernization. Their study and description of the biocultural richness of traditional systems laid the foundations for the development of agroecology in Mexico and broadened the points of contact between the social sciences and agronomy. Peasants came to be seen as part of a holistic system that included their use of the environment, the work of their families, and their links with the community [61].

In Chiapas, the most important academic institution is *El Colegio de la Frontera Sur* (ECOSUR), a prestigious center for research and postgraduate teaching. ECOSUR has a unit in Tapachula more focused on biology and another in San Cristóbal de las Casas, which concentrates mainly on the social sciences. Founded in 1994, ECOSUR launched doctorate studies in agroecology and pest management, paying particular attention to the role of biodiversity in agricultural environments. Its research on landscape ecology and sustainable food systems focuses on the peasants' traditional agroecological practices and also involves experimental work in these techniques with the active participation of the indigenous population [52].

In the field of coffee growing, ECOSUR researchers promoted the introduction of several natural enemies of the rust plague: three species of African parasitoids, *Cephalonomia stephanoderis*, *Prorops nasuta*, and *Phymastichus coffea*, and two entomopathogenic fungi, *Beauveria bassiana* and *Metarhizium anisopliae*. As a result of their work, in 2000, a number of coffee cooperatives (*Unión de Ejidos de la Selva* and *Tiemelonlá Nich Klum* among them) had laboratories for the production of the fungus *Beauveria bassiana*. Studies were also carried out to determine the most appropriate shade level in coffee plantations so as to optimize production and pest prevention [62]. In collaboration with the Commission for the Development and Promotion of Coffee in Chiapas (COMCAFE), ECOSUR developed an agro-ecological coffee management plan for the state of Chiapas that served as a guide for producers and for the administration in the design and execution of programs to support coffee growing [63].

To sum up, the shift toward the production of organic coffee was stimulated by the fall in the international coffee prices in the late 1980s (Figure 2), but the crisis of the INMECAFE and the resilience of the traditional indigenous agriculture were also determinant factors for the emergence of organic coffee growing. In our view, the peasants' capacity for self-organization, rooted in a long tradition of collective management of natural resources, was also an important factor in this transition. In the following section, we describe the peasant mobilization that triggered the process of the collective organization of small coffee producers in cooperatives.

3. The Peasant Mobilization

In Chiapas, the community traditions and the experience of protests and collective action of peasants during their mobilization in the 1970s paved the way for the creation of cooperative organizations. Two important factors contributed to this mobilization—the work of volunteers and advisors (some of them Maoists) coming from higher education centers in central Mexico, especially from the Autonomous University of Chapingo, and the Catholic Church in Chiapas, specifically the Dioceses of Tapachula and San Cristóbal de las Casas (the latter in turn divided into the Jesuit Mission of Bachajón and the Dominican Mission of Ocosingo). These two actors played different roles but were not antagonistic to one another. At that time, the predominant trend in the Catholic Church in Chiapas was liberation theology, the main concern of which was to address social injustice in the region.

During the 1960s, the Diocese of San Cristóbal de las Casas instructed more than 700 catechists from different indigenous regions of Chiapas. In 1968, they published a manifesto in which they denounced the situation of extreme poverty in their communities. The manifesto had a great impact on Bishop Samuel Ruiz and his colleagues in the Church [64] who were imbued with the new currents at work in the Catholic Church after the Second Vatican Council and the Medellín Congress of 1968. Close to the poor indigenous peasants, the Church promoted the idea of liberation from the yoke of the landowners, the *coyotes*, and the local moneylenders [65].

The Indigenous Congress of 1974 was the event that did the most to set the process of peasant organization in motion. On the occasion of the 500th anniversary of the birth of Fray Bartolomé de las Casas, the governor of Chiapas, Manuel Velasco Suárez, commissioned Bishop Ruiz to hold an indigenous congress. The event attracted some 1400 delegates from more than 500 communities of indigenous groups and had a great political and social impact. The demands voiced by the delegates focused on illiteracy, diseases caused by malnutrition, the lack of basic services and infrastructure, the lack of credit or support from government agencies, and the suspension of subsidies for the production of basic grains. Complaints about the low coffee prices and criticism of the role played by INMECAFE were also widely heard [66]. The delegates came to the conclusion that self-organization was the only way to overcome the situation of marginalization and oppression [64] (p. 230).

The preparation of the congress, which began in 1972, acted as a training process for some of the peasant leaders who went on to coordinate the unions of *ejidos* and later the coffee cooperatives. Only a few months after the Indigenous Congress, the first three unions of *ejidos* were created: *Quiptic ta Lecubtesel*, *Tierra y Libertad*, and *Lucha Campesina*. In 1980, a federation of these organizations was set up (*Unión de Uniones Ejidales y Grupos Campesinos Solidarios de Chiapas*), representing 12,000 families, mostly indigenous, from 180 *comunidades* [67] (p. 101). It was the most important attempt to organize the social mobilization since the Indigenous Congress in 1974, and Maoist volunteers living in these peasant *comunidades* played an important role in its creation [64] (pp. 260–261). The geographical area that the organization covered would later, in the early twenty-first century, be the area with the highest concentration of cooperatives of small coffee producers (Figure 5). This shows that even with the political repression exerted against the mobilization, there was a clear connection between the peasant mobilization from the 1970s and 1980s and the later spread of the cooperative movement.

In 1979, the Maoist activists changed their political strategy, reducing their emphasis on ideological instruction and prioritizing economic issues. They began to stress the importance of the appropriation of the productive process, a concept that had emerged in the Mexican countryside in the 1970s and became a central tenet of the peasant mobilizations of the 1980s. The Maoists focused their attention on the problems deriving from the commercialization of coffee—the high cost of transport, which had to be paid by the producers, and the excessive time taken by INMECAFE to pay the producers for their crops. These concerns led to their participation in organizing the first coffee cooperatives in the 1980s [67].

In the early 1980s, the *Unión de Uniones Ejidales* signed several agreements with INMECAFE and with the Mexican Ministry of Commerce, which resulted in improvements for small coffee producers. In 1982, the National Bank Commission authorized the *Unión de Uniones Ejidales* to set up an organization

(*Unión de Crédito Agropecuaria e Industrial de los estados de Chiapas y Oaxaca Pajal Ya Kac'Tic*) in the Mexican states of Chiapas and Oaxaca, which provided credit to small coffee producers and also had complementary functions in the marketing of coffee, seeking better conditions for its commercialization at a time of falling prices and the increasingly dysfunctional position of INMECAFE. These agreements were the first horizontal links between small coffee producers, which would eventually culminate in the foundation of the National Confederation of Coffee Organizations (CNOOC) in 1989 [68].

The Catholic Church also helped to organize the small coffee producers in cooperatives. In some cases, it was the indigenous peasants themselves who requested the Church's assistance to improve their living conditions through productive projects. At Tiemelonlá, for example, Bishop Samuel Ruiz acted as an intermediary with a religious congregation, the *Hermanas de la Caridad del Verbo Encarnado*, to aid in the organization of the cooperative and to take part in the technical team [69].

In 1989, Bishop Ruiz sponsored the creation of the Indigenous Center for Integral Training, "Fray Bartolomé de las Casas". Composed of several farms and applying an open door policy, one of the functions of this center was to train small peasant farmers in organic agriculture. In the mid-1990s, it participated in the first Meetings of Organic Producers of the state of Chiapas [53], and some years later it became the Indigenous Center for Integral Training (CIDECI) linked to the Universidad de la Tierra Chiapas, an open education center for young indigenous peasants which supported the Zapatista Army of National Liberation (EZLN).

An important step forward for the cooperative movement and the spread of organic coffee growing was the technical program "*Campesino a Campesino*". It was initially organized in Guatemala and Nicaragua in the 1980s and was the first process of technological innovation in agroecology in Central America [70]. A first meeting in Chiapas was held at San Cristóbal de las Casas in July 1994, attended by some 20 cooperative organizations. A second meeting was held in the same city in November 1995 to consolidate the organizational process and reinforce the network of innovative farmers in organic coffee growing [53].

After the Zapatista uprising of 1 January 1994, some coffee cooperatives became enclosed in the areas under the control of the EZLN. As the Mexican government punished the *guerrilla* forces and imposed a harsh repression of their peasant bases, these cooperatives had difficulties, but they continued nonetheless, and a few cooperatives formed by Zapatista supporters were set up. However, they were closely supervised and lost their capacity for self-management, especially after the changes in the structure and territorial organization announced by the Zapatista leadership in 2003 [71].

4. The Development of the Cooperatives

Cooperative organizations started to spread in Chiapas in the 1980s as a consequence of the institutional and economic crisis in the coffee sector. The cooperatives capitalized on the process of peasant mobilization described in the above section, and also on the tradition of community life, which aided the adoption of cooperative rules. The first coffee growing cooperative in Chiapas, *Unión de Ejidos de la Selva*, was founded in 1979. Emerging from the *Unión de Ejidos Tierra y Libertad*, the cooperative included Maoist volunteers from the Autonomous University of Chapingo, religious members of the Diocese of San Cristóbal de las Casas, and indigenous peasants from the municipality of Las Margaritas, trained as catechists by the Catholic Church. The *comunidades* involved in its foundation had participated in the Indigenous Congress of 1974.

In the following years, others took up the example. Their model was the *Unión de Comunidades Indígenas de la Región del Istmo* (UCIRI) created in the neighboring state of Oaxaca. The UCIRI was a pioneer in Mexico and Latin America in the production of organic coffee and had the seal of guarantee of equitable coffee (the Max Havelaar seal) for its commercialization through the Fair Trade circuits [48]. It provided technical and commercial assistance to some of the first cooperatives, such as ISMAM and *Tiemelonlá*, both founded in 1986, and its organizational model was a reference point for numerous cooperatives in Chiapas.

Figure 3 traces the evolution of the cooperative movement in Chiapas by showing the number of coffee cooperatives created between 1979 and 2015. Despite the lack of reliable statistics, we have compiled information on the creation of 66 cooperatives (more than 50% of the total number created in Chiapas between 1979 and 2015). In the 1980s, only seven were set up, but in the 1990s, they started to expand. Sometimes they were short-lived and other cooperatives were founded in their stead.

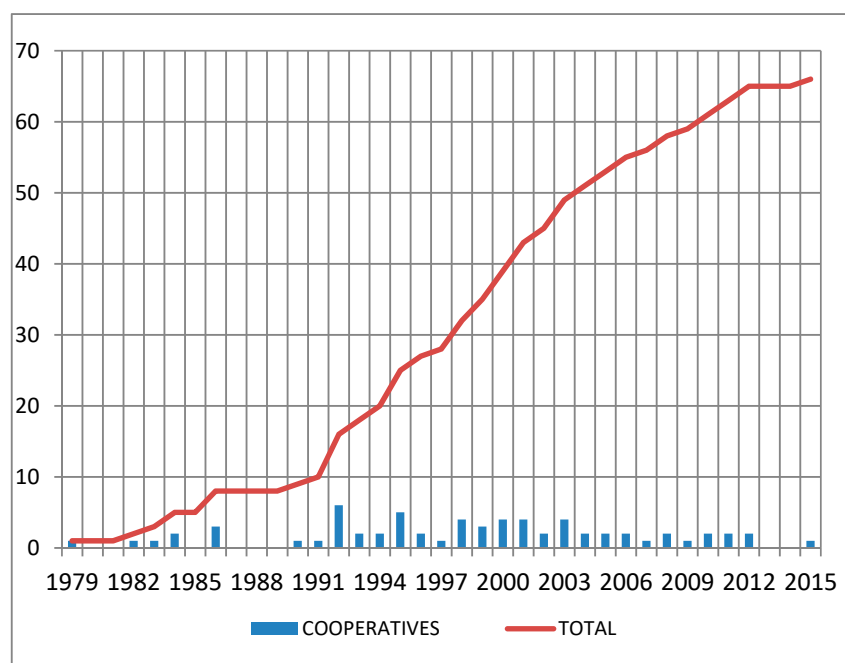


Figure 3. Coffee cooperatives created in Chiapas, 1979–2015. Sources: based on data collected in our own survey (see text).

Figures 4 and 5 compare the geographical distribution of these cooperatives between 1990 and 2005. For the sake of simplicity, the maps show the municipality where the operational headquarters of the cooperatives are located, which usually includes the warehouse and weighing area, the offices, filter machinery for selecting and processing the best grains to transform the parchment coffee into green coffee, and more recently, a coffee tasting laboratory to check quality before delivery to the customer. These sites had to be located as close as possible to the roads that connect Chiapas with the rest of the country, but they also had to be relatively near their members' *ejidos* and *comunidades*, which were sometimes scattered in surrounding municipalities.

The creation of cooperatives was concentrated in two areas—the southwest of Chiapas (in the regions of Sierra, Soconusco, and Frailesca), and the northeast (in the regions of Altos, Norte, and the northernmost part of the Selva region). The southwest is where large-scale coffee cultivation had begun in the nineteenth century on estates owned by foreign landowners (mainly Germans), which attracted large numbers of workers from other regions of Chiapas and from Guatemala. The northeast, historically a reservoir of cheap labor that moved to the southwestern part of Chiapas for the harvest season, lost a large amount of its population to other regions of Chiapas from the 1950s onwards [43] (p. 121). In both areas, there was a substratum of peasants who had learned to grow and harvest coffee in the traditional way.

Figure 5 shows the fragmentation of producers in a large number of cooperatives. The municipalities of Ángel Albino Corzo and Motozintla in what we called the southwest area had eight and nine cooperatives, respectively, in 2005. The municipality of Yajalón, in the northeast, had the headquarters of eight cooperatives, but this fragmentation, which implied a very low use of economies of scale, was partially overcome by collective solidarity and by the technical, administrative, and commercial assistance that the existing cooperatives provided for the new ones.

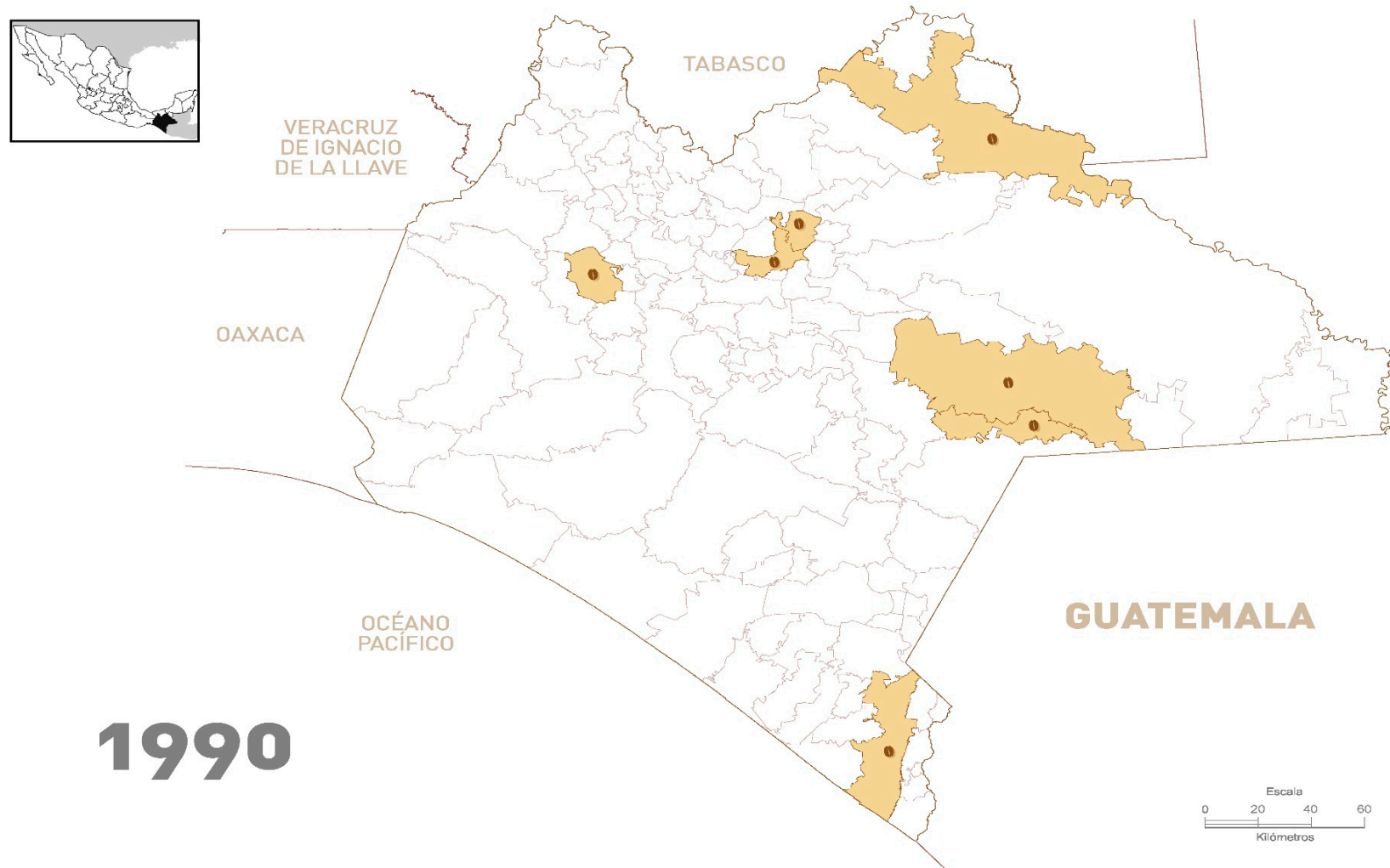
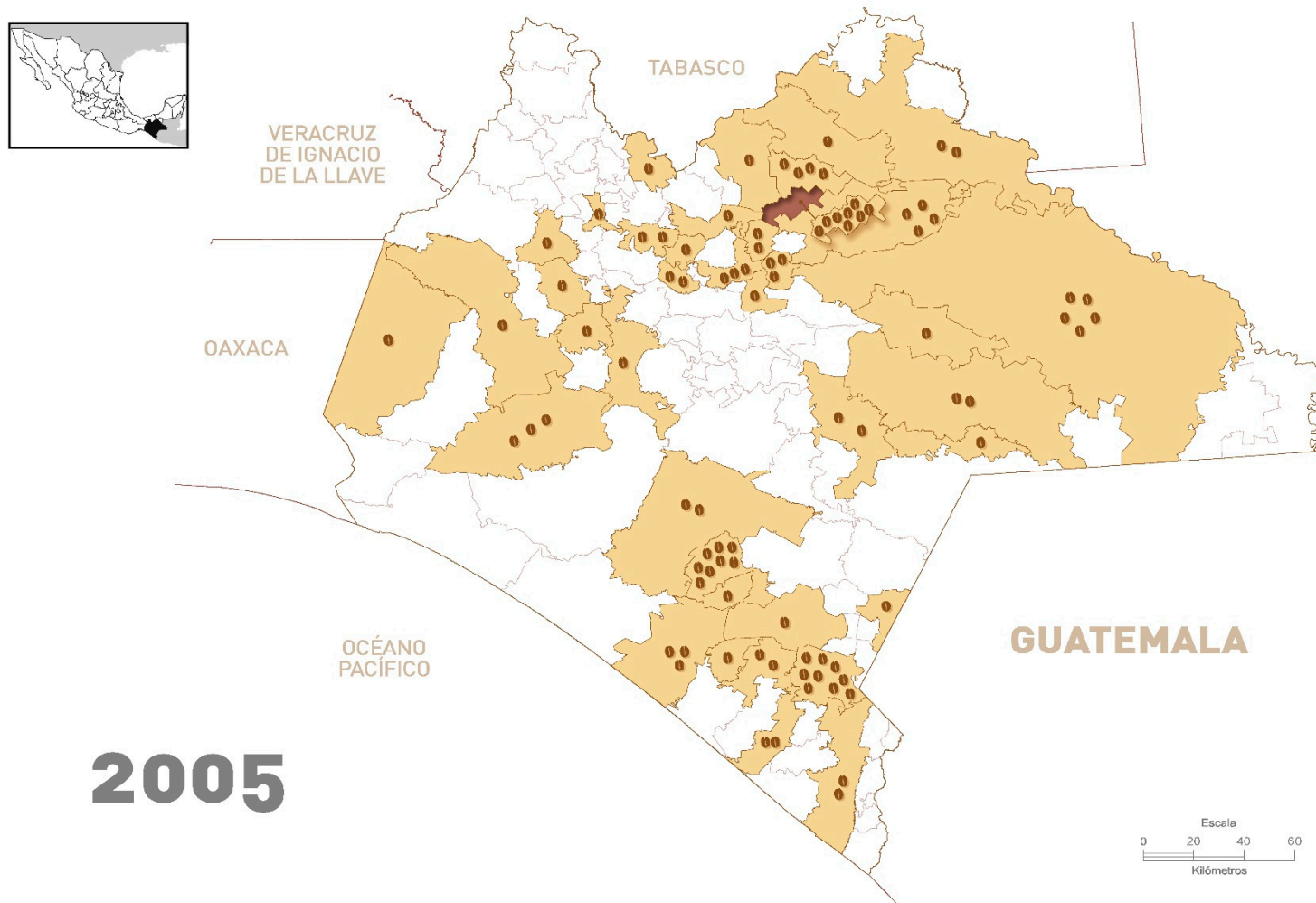


Figure 4. Geographical distribution of coffee cooperatives in Chiapas (1990). Source: Based on data collected in our own survey (see text).



2005

Figure 5. Geographical distribution of coffee cooperatives in Chiapas (2005). Source: based on data collected in our own survey (see text).

Despite this fragmentation, some cooperative organizations had a considerable number of members. At the time of their foundation, *Unión Majomut* had 348 members (1983), *San Fernando* had 398 (1984), and ISMAM had 247 (1986), and all these cooperatives later exceeded the figure of 1000 members. In contrast, the cooperatives of *Tiemelonlá* and *Tzeltal Tzotzil*, created in 1986, started with only 25 and 19 members, respectively, and never reached a comparable membership. According to our estimations, at the time of the crisis in 1989, the eight cooperative organizations in operation grouped together between 1500 and 2000 members (that is, between 7500 and 10,000 people, assuming an average of five members per family).

Afterwards, during the period of expansion of the cooperatives, some of them increased their membership with the entry of new *ejidos* and *comunidades*. For example, in 2002, some *ejidos* and *comunidades* of the municipality of Chenalhó joined the cooperative *Unión Majomut*, thus bringing in some 300 new members. With the data collected in our survey, we were able to compare the membership in 61 cooperatives between 2005 and 2010, and found an average growth of 21%. The average size of the cooperatives rose from 274 to 330, although the number of cooperatives for which we could obtain data was lower in 2010 than in 2005. However, the membership of the cooperatives varies widely; some had more than 1000 members, but most had fewer than 250 (Table 2). In the cooperatives for which data were available, we found a fall in the ratio of hectares per producer, indicating that the new members that joined the organizations tended to have smaller farms. According to our calculations, between 2005 and 2010, the average size fell by 9%.

Table 2. Size of the coffee cooperatives in Chiapas according to their membership (2005 and 2010).

	2005	%	2010	%
0–50	15	16.67	8	13.11
51–100	13	14.44	7	11.48
101–250	33	36.67	19	31.15
251–500	14	15.56	12	19.67
501–1,000	11	12.22	12	19.67
>1000	4	4.44	3	4.92
TOTAL	90	100	61	100

Sources: Based on data provided in Fomento Económico de Chiapas [3]; COMCAFE [4]; Barrera Gaytán et al. [63]; Gómez Cruz et al. [72]; CERTIMEX [73,74].

In some cases, the increase in the membership had negative consequences, and the number of entries had to be limited. For example, the cooperatives *Tzeltal Tzotzil* and *Ts'umbal Xitalhá* restricted membership in an attempt to ensure that the entire production could be sold to maintain internal cohesion, to consolidate producers' identification with the cooperative, and to avoid the free rider behavior clearly identified by Mancur Olson in his classical work [75]. In the 1990s, hundreds of peasants joined the cooperative *Tzeltal Tzotzil* hoping to receive subsidies from the administrations, but as they were unwilling to commit themselves to producing quality and certified coffee, they finally left the cooperative. Some farmers engaged in opportunistic behaviors and sold to alternative buyers, especially when the international prices of coffee recorded sharp increases, which made the prices offered by Fair Trade less competitive (Figure 2). Attracted by the chance to collect the total amount of the sale immediately, some producers decided to sell their coffee to intermediaries rather than wait for the cooperative to pay them. These speculative attitudes were, to some extent, a consequence of the financial problems of the cooperatives. Sometimes, the difficulties in accessing resources meant that the cooperatives were unable to pay their members at the moment of delivery, a situation that gave rise to considerable discontent among the producers.

The cooperatives organized the work of their members and oriented their production towards specialization in organic coffee in order to make as great an impact as possible in global markets and to retain a larger part of the productive surplus for the producers. Some reports of the performance of cooperatives such as *Unión Majomut* and ISMAM, analyzed by R. Nigh [76], and *Tzotzilotic Tzobolotic*,

studied by M. E. Martínez Torres [77], note the importance of their participation in Fair Trade coffee networks in alleviating poverty. Some of the internal reports of cooperatives also highlight that the shift to organic coffee growing slowed down peasant emigration [78].

However, the certification process for marketing the coffee through Fair Trade channels was not easy, and the certification had to be renewed every year. The requirements were quite stringent: the non-application of chemical products by members (or in the adjoining farms) had to be demonstrated; the process of pulping and subsequent drying, which was carried out individually by the producers, could not use plastic containers, and the coffee had to be dried in drying yards (*patios*) on henequen fabrics, not on plastic; the mead from the fermentation had to be filtered so that it did not end up in the rivers, and the coffee had to be stored at a safe distance from chemicals. The on-site inspections focused on aspects such as the traceability of the coffee (that is to say, the product sold by the cooperative had to come from the coffee grown and harvested by the members following the ecological process), on the study of updated documentation regarding the cooperative's organization (with reliable records of all the membership and its democratic functioning), and on interviews with members to assess their satisfaction with the cooperative's performance.

In the 1980s, certification bodies were forced to internationalize and to standardize the procedures. The regulation was progressively carried out by the governments according to the norms laid down in the International Standards Organization (ISO) Guide 65. The different national Fair Trade initiatives are currently grouped in Fairtrade Labeling Organizations International (FLO), which, in addition to coffee, certifies other products such as tea, cocoa, sugar, and honey. In compliance with the ethical and environmental values associated with these products, importers guarantee a minimum price to which is added what is known as the social premium and the premium for organic production. These ethical and environmental values are scarce resources and therefore generate added value. Through the imposition of access restrictions, the certification bodies perform not just the function of validating ethical and environmental values but that of market regulation as well [79,80].

According to the information collected in our field work, the certification process for organic coffee production might last up to three years. This was an extremely long period for cooperatives, as their members were unable to see the rewards of their efforts. Some of the cooperative organizations lost members, and certain among them were even forced to close down. An example is the cooperative *Sch'Litesel Ka'teltic* in the municipality of Ocosingo. Located in a very poorly communicated area, it was founded in 2004 with 40 members of the Tzeltal ethnic group. At the very beginning, the cooperative decided to transition from conventional coffee to organic coffee, and the membership was trained by the technical staff from the *Paluch'en* cooperative, which also included members of the same ethnic group. The *Paluch'en* staff visited the coffee plots and helped to correct the deficiencies they detected in order to help the cooperative pass the certification process, but part of the membership gave up because of the extra workload that the organic certification entailed (without producing any immediate monetary returns). In 2010, the membership had fallen by half. Three years later, when the rust plague was ravaging Central America, the huge decline in the production of coffee led to the disappearance of the cooperative.

There are probably other cases similar to the one described here, especially in poorly communicated areas. Indeed, 14 cooperatives closed down between 2003 and 2013. However, the fulfillment of the strict technical norms required to meet the Fair Trade demands was certainly easier for producers organized in cooperatives, whose members shared a common set of values, had a long tradition of collective organization, and, moreover, applied traditional farming techniques that had not been completely abandoned.

The cooperatives collect the coffee in parchment form once the producers carry out the first process of pulping and subsequent drying and transform it into green coffee that can be exported or sold to roasters. At the cooperative facilities, the parchment shells are eliminated mechanically, and then the grains are subjected to a screening system to achieve the homogeneous size that coffee exports require. In the following process, each grain passes through a pneumatic vibration system that selects

the best grains according to density. The grains obtained are then leaked into an electronic machine train that eliminates the ones that present defects so that a green grain is obtained in accordance with international standards. The largest cooperatives usually hire professionals for their technical teams, and in some organizations they act as managers, but in all cases, the committee members are peasants. In smaller cooperatives, the same is true of the technical staff—both managers and technicians are forced to acquire managerial skills during the performance of their duties.

In the beginning, the organic coffee produced by these cooperatives was exported almost entirely to European countries through Fair Trade circuits. Later, the United States was added as an importing country, followed by Canada, Japan, Australia, New Zealand, Taiwan, and Israel. The customer profile also changed over the three decades examined here. At the beginning, customers were non-governmental organizations (NGOs) linked to the cooperation for development, but later, coffee shops and coffee gourmet chains were added as well as large importers that distributed coffee to supermarkets, ecological stores, consumer cooperatives, public institutions, the catering sector, and so on. Some of these importers were originally involved in NGOs and then split away to separate their commercial activity from the rest of their participation.

As the main objective of the cooperatives was to pay to their members a fair price for the coffee delivered, they had a very low capitalization and investments in productive improvements or technical training were heavily reliant on subsidies and assistance from Mexican public bodies or from European, Japanese, or US NGOs. For example, the cooperative *Ts'umbal Xitalhá* made a particularly strong commitment to coffee quality, which includes a tasting and quality control laboratory that trains young members of the cooperative. The sophisticated machinery to control the quality, purity, and optimum degree of maturation of the coffee beans was provided by a Japanese development NGO. *Unión Majomut* received funding from the Rockefeller Foundation and several European NGOs, including the Belgian organization *Terre Solidaire*, which imports its organic coffee and financed the construction of drying yards (*patios*) and the acquisition of pulping machines for use by *Unión Majomut's* members in their farms. In 2008, this cooperative also benefited from a federal government program for the improvement of productivity in the Mexican countryside, which provided hundreds of basic manual tools for growing and harvesting coffee.

During the 1990s and early 2000s, the period of greatest expansion of the cooperatives, the number of organic coffee producers rose significantly. In 2002, organic coffee production in Chiapas was calculated at 416,300 quintals of parchment coffee (20% of the state's total coffee production of 2.1 million quintals). The area devoted to the cultivation of organic coffee was estimated at 34,699 hectares with an average yield of 12 quintals of parchment coffee per hectare—somewhat higher than the average for the coffee sector, which was 10 quintals of parchment per hectare [38]. In 2004, a census conducted by the Commission for the Development and Promotion of Coffee in Chiapas (COMCAFE) estimated the number of organic coffee producers to be 22,626 (13% of the total number of coffee producers in the state of Chiapas of 174,690), and the extension of organic coffee growing was estimated at 45,354 hectares (19% of the total area devoted to coffee cultivation in any of its forms in the state of Chiapas of 240,515 hectares), with an average of around 2 hectares per producer [63] (pp. 158–164).

An important step forward in the promotion of this alternative coffee production model was the creation of COOPCAFE (*Coordinadora de Pequeños Productores de Café de Chiapas*), a federation of these cooperative associations in the state of Chiapas. COOPCAFE played a central role in the collective action of the coffee cooperatives of Chiapas for at least a decade. Its organization dates from 1989, though its official foundation took place in July 1994 at a meeting of representatives of the constituent cooperatives of *Unión de Ejidos de La Selva* (created in 1979), *Unión Majomut* (1983), *San Fernando* (1984), *Tzotzilotic Tzobolotic* (1992), and *Cholom Bolá* (1994). Until that time, these cooperatives had been members of the Mexican national organization (CNOC), which had played a major role in the peasant mobilizations of Mexico since its foundation in 1989 [81].

COOPCAFE was initially created to lobby the Chiapas administration in order to obtain access to credit and the programs of support for rural production and also to promote coffee production and improve sale prices. During the price crisis of 1998 to 2002, COOPCAFE lobbied the Mexican Coffee Council (which had succeeded INMECAFE) to mitigate the effects of the falling prices by destroying thousands of sacks of low quality coffees. However, it soon became interested in cultivating organic coffee and promoting product quality in its associated cooperatives, placing particular emphasis on helping them to achieve organic and Fair Trade certifications. The main activities were, therefore, providing training for the technical teams at the cooperatives and lobbying the government for support for joint projects. By 2002, COOPCAFE grouped together 27 cooperatives from all the coffee regions of Chiapas, and within ten years, this number had risen to 36 cooperatives composed of 11,560 producers [43] (p. 95).

COOPCAFE participated energetically in the CNOC and helped to strengthen the position of this national organization. In 1996, the Second National Congress of the CNOC, the nationwide organization of state-level federations of small coffee producers, was held in San Cristóbal de las Casas, Chiapas. The congress established the following strategic guidelines: to promote joint commercialization between cooperatives in order to enter organic coffee and Fair Trade markets; to improve the quality of coffee produced by taking special care in the cutting and processing of coffee cherry to parchment coffee; to demand the enactment of Mexican legislation to regulate the quality and content of coffee sold to final consumers; and to implement mechanisms for certification of the origin of the various types of coffee [82].

Today, CNOC groups together 75,000 small farmers in more than one hundred cooperatives and other organizations [47] and has become the most important representative of small coffee growers. It plays a major role in supporting organic coffee growing, the defense of the environmental protection, and the self-organization of small producers.

5. Conclusions

The future of this cooperative movement and organic coffee growing in Chiapas is difficult to predict, and in any case, making forecasts is beyond the scope of this article. Here, we analyzed this form of production that emerged as an alternative to the model of the Green Revolution. We stressed its contribution to a more sustainable and environmentally respectful agriculture and its connections with the long history of community life of the indigenous population, their knowledge and traditional agroecological practices, and their social mobilization in the struggle for land rights and better living conditions.

As we argued, since the 1960s, the deterioration in the conditions of economic reproduction of family farms in Chiapas led small agricultural producers to seek out productive alternatives. One of the possible solutions was to expand the cultivation of coffee. As a result, the state of Chiapas has become Mexico's leading coffee producer and also the region with the greatest number of producers and the largest cultivated area.

In the 1970s, the small producers of Chiapas began a process of mobilization and collective organization spurred by the Catholic Church's commitment to improve the living conditions of the most vulnerable sector of the population. The Church's engagement met with the support of leftist volunteers coming from universities in central Mexico. The long experience of communal management of natural resources and the tradition of assemblies in communities (*ejidos* and *comunidades*) paved the way for the creation of cooperatives of small coffee producers. The extension of the social ownership of the land in Chiapas (quite exceptional in Central America) was indeed a comparative advantage for the accumulation of social capital in these communities. As the literature on common-pool resource institutions highlighted, it facilitated the creation of cooperatives and contributed to their performance.

The fall in conventional coffee prices in the 1980s was a decisive stimulus for small producers to move toward the production of organic coffee, applying more sustainable production methods that had not been totally abandoned in the areas inhabited by the indigenous population. These farmers

benefited significantly from the agro-ecological research promoted by academic institutions. The resilience of the traditional farming practices of the indigenous population offered an opportunity for starting the new specialization process in organic coffee growing, and indeed helped to establish the state of Chiapas as one of its leading producers in Central America.

Since the 1980s, and especially in the 1990s and the early 2000s, neoliberal policies reduced state intervention in Mexican agriculture. Specifically, in the field of coffee production, the government abolished INMECAFE in 1993. Over this period, there was a rapid proliferation of cooperatives of small coffee producers mainly oriented towards the production of certified organic coffee. They looked for markets with more favorable prices and started exporting coffee through Fair Trade circuits. In 1994, the creation of COOPCAFE was an important step in the consolidation of this cooperative movement and its orientation toward environmental sustainability.

The development of cooperatives has certainly contributed to promoting an economic alternative for small producers who would otherwise have been forced to emigrate. Nevertheless, this alternative is far from being consolidated and, as we underlined, it is heavily dependent on external factors. Indeed, the cooperative movement that we described in this article is not an unqualified success story. As we have seen, some cooperatives were unable to pass the certification process and eventually disappeared. We estimate that only around one third of the existing cooperatives are currently members of the COOPCAFE federation, which means that the majority do not have access to its assistance and guidelines. Most of the cooperatives are small, with fewer than 250 members (though in the last decade the average membership has increased), and the fragmentation of producers in a large number of cooperatives makes these organizations vulnerable. Moreover, they suffer financial problems owing to their low capitalization and are highly dependent on external funding for their investments from state subsidies or from international NGOs. They also rely heavily on the Fair Trade circuits to market their production, and, in the last decade, have been faced with more modest increases in the consumption of organic coffee in Western countries. Consequently, they have been forced to diversify their commercialization routes and to pay more attention to the opportunities inside the growing Mexican market.

Not all of these weaknesses are unique to the cooperative organizations in Chiapas. Small size, low capitalization, and heavy dependence on external technical and financial support (especially from the state) are also common features of cooperatives in Western countries, as the literature highlighted; but the fragility of these entities is higher in poorly communicated areas with very few economic resources, and today, Chiapas remains one of the poorest regions in the world.

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