There is no chocolate without organized family agriculture

René Mendoza Vidaurre[1]

Eve left the Garden of Eden over chocolate! Anonymous.

Life is like a box of chocolates, you never know what you are going to get. Forrest Gump

The exodus of the people of Israel from Egypt to the Promised Land, the Bible says, had a decisive moment when, pursued by Pharaoh and his Army, they arrived desperately to the sea, and then Moises raised his staff and the sea opened up; so they turned a page and wrote their history. The chocolate industry predicted that by 2020 they will need 30% more chocolate; nevertheless, the cacao supply does not seem to be responding to the demand. Said figuratively, the state institutions, the market and society, like Moises, are raising the staff of productivity, quality, inclusive businesses and fair trade so that there might be more cacao and Eve might have a reason to not go back to Eden, but the sea is not opening up! Why? What "staff" is needed for the sea to open? This article deals with that question.

Introduction

We are facing a paradox where peasant and indigenous families, that previously produced cacao and chocolate, and were dispossessed of the territories where they used to produce it and displaced into the mountains[2], moved from being seen as villians (from the Latin *villanus*, from its historical origin meaning "peasant" or "people from the countryside") to be seen as heroines. The families say that when they went to settle on land on the highest areas they took with them grains of beans and corn, and coffee seeds; and those who went to settle on the medium to low level lands took with them grains of beans and corn, and cacao seeds; coffee and cacao to generate income for them, and to connect them to the world of commerce[3]. In these inhospitable areas they made their farms and plots of land. In recent years, those same "villianous" families, or their descendents, are called to save the chocolate that the society with more income is demanding, and along the way mitigate climate change, because they see cacao also as forest.

This paradox is an expression of a great opportunity for peasant and indigenous families that produce 90% of the world´s cacao. They could take advantage of the good prices for cacao, increase their production, their income, and benefit from the investments announced by several organizations and institutions. Nevertheless, many times the peasant and indigenous families have had opportunites that have been captured by elites from different parts of the vertical chain of actors, and then used against

[1] René (rmvidaurre@gmail.com) has a PhD in development studies, is a collaborator of the Winds of Peace Foundation (http://peacewinds.org/research/), an associate researcher of IOB-Antwerp University (Belgium) and a member of the COSERPROSS Cooperative RL. We note that the name of the municipality "Sasha", the Dalila cooperative, the ABC and RDA NGO, Flesh company, and the last names Konrad, Peñaranda and Peña, mentioned in this article, are ficticious. We did this to protect those identities from any inconvenience that this article might cause them.

[2] The anthropologist Kathryn Sampeck, based on archaeological studies, revealed that the word "chocolate" is from the pipil language (Náhuatl *xocolātl*), that comes from a drink of the Pipil-Izalcos region (until 1823 part of Guatemala, and since 1823 part of El Salvador). The region, because of its cacao and chocolate, was connected to regional and global commercial and cultural networks in colonial times. This indigenous cacao of Mesoamerica then expanded into Ecuador and Venezuela based on African slave labor, while the region of the Izalco was appropriated by the haciendas. See Sampeck (2014).

[3] Cacao, like coffee or cattle, complemented and helped peasant-indigenous families to improve their lives, see interview of Francine Chritophe, a Jewish woman and survivor of the Nazi war, telling how a piece of chocolate changed the life of one person: https://www.youtube.com/watch?v=Xg7iKaj9zMQ

those very producer families. Thus it has been the history of dispossession[4]. Something like this is keeping the staff of the "modern Moises" from opening the sea.

In this article we argue that if good international prices are not reflected in what the producer gets paid, it is like "you are going to get" the same chocolate as always when you open the box, which is why it would be difficult for the sea to open. For the producer families to produce more and better cacao, a change is needed in the organization and institutional framework in the chain of cacao actors. Technology and markets can function if the social and political parts are also functioning.

We test these arguments following academic procedures[5]. We review international data on cacao to understand some patterns of its global evolution, by region and by countries like those of Central America. We read academic articles and newspaper articles from different countries to understand the various perspectives and situations, as well as to capture opportunities, problems and tendencies that are seen as common regularities. We observed cacao farms, harvest collection, fermentation and drying centers, where the cacao is transformred and its quality determined. We talked with producers, collectors, merchants, exporters, importers, representatives of aid agencies and managers of financial institutions to learn from their different – and even opposing – interests, from their images of the other actors, and their self image as actors in the cacao chain. We analyzed those private and cooperative mediation processes along with leaders of organizations, managers and technical coordinators of cacao in Sasha (Nicaragua)[6]; analyzing "jointly" means listening – said figuratively – to some ranchera music and some Mozart, to detect our own attitude: concerning the producers, to make it visible that they are part of the economic mediation, and concerning the facilitators, to recognize that they are part of the academic mediation, just as extractive as other types of mediation. And from this discernment prepare alternative paths.

What follows presents the conceptual framework, an analysis of the evolution of cacao and its crisis, the responses that the market actors, international aid and the State provided to that crisis, a discernment of the underlying institutionality, a proposal from associative modalities coherent with their global and local role around the transformation of the mediation, and in the end the conclusions, summarizing the findings and our proposal for a needed change in course.

1. Conceptual framework

On getting into the world of cacao, an image began to take shape before our eyes like the pieces of a puzzle, that of a "social jukebox" with different sounds. A musical jukebox is where you put in a coin and select a song. The cacao jukebox is where companies, aid organizations and governments put in a coin, and no matter what song is chosen, through the loudspeakers is heard a ranchera for the producer families, and through the individualized earphone the companies, aid organizations and governments hear a Gregorian chant (Mozart´s requiem); and the same thing happens when the producer families put in a

[4] Mendoza (2012) explains these mechanisms. When the coffee quality of a peasant family ends up winning the Cup of Excellence Award, the provincial elites find out and try to appropriate their land. Or how the elites, after having expelled the peasant families to the highest areas, on finding out that those areas that were worthless in the past now have quality coffee, they run to appropriate those lands, which is counted as the "supply and demand for land.".

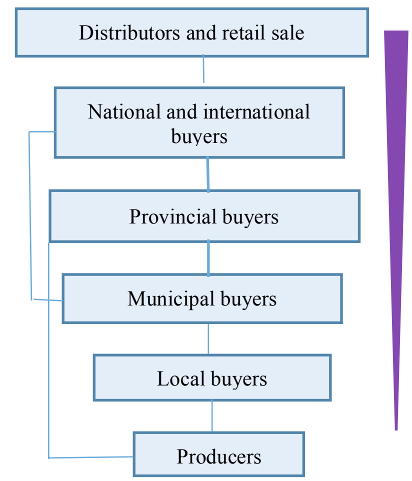
[5] R. Kanigel (1991) published his book **The man who knew infinity**, released as a film in 2015 with the same title. It deals with S. Ramanujan, a young peasant mathematician from India who was admitted into the University of Cambridge (England) during the First World War. Ramanuhan wrote great mathematical formulas, while his mentoring professor demanded proof of those theories. In this article, inspired by Ramanujan, we also struggle to show proof of what we are arguing, even though our arguments might be very simple.

[6] This opportunity for joint reflection was possible because the author, along with E. Fernández and K. López, facilitated a process for writing the strategic plan for the Dalila Cooperative in Sasha, Nicaragua, between 2016 and 2017.

coin, ranchera for them and Mozart for the elites, regardless of the type of mediation in which they find themselves.

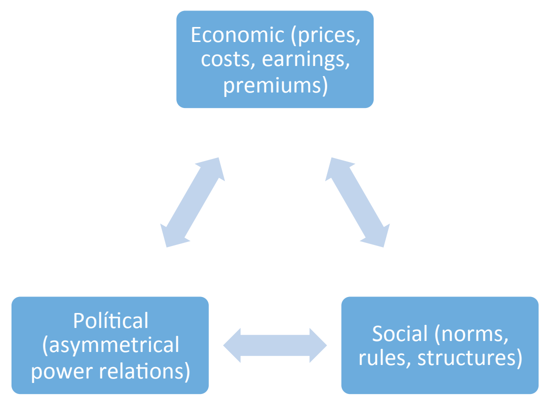
In the chain of actors and their allies, any policy button is pushed and its results tend to benefit the small groups located in each phase of the chain of actors, leaving the producer families marginalized. How is this possible? Following Diagram 1, the chain of actors is a mediation of material resources (products, capital) and non material resources (information, knowledge, relationships-contacts) that, to the extent that they go down the chain (see purple line), tend to leave behind less resources and opportunities. This mediation is a millennial institution (see: Rosemberg and Birdzell, 1986; Mendoza 2003) that, even though it is seen as a "chain of actors" or "alliances" continues to be mediation. In the case of the chain of fair trade actors (cooperatives, certifiers, buyers, financiers), it appears to be a new mediation with different names ("cooperative", "members", fair trade", "projects"); nevertheless, the structure of mediation is similar and generally the same.

Diagram 1. Cacao Mediation



Within this mediation framework, an interrelationship occurs between the economic, political and social aspects: see Diagram 2. The processes that have to do with social structures and norms (social) interact with the power relationships (political) and with the economic results (the economy). The "trilemma" is that each one of them is presented as isolated, and at the same time as the solution; particularly the market (economy) appears as the only valid one, subjugating the dynamics of democratization (political) and assuming as givens the social rules and norms (social) that legitimize the inequality. The result (economy) is presented without the processes (social and political) or subjugating to it as something functional; it is like declaring oneself "economically a cooperative" (in other words, only a business with volumes of exported cacao), and from there deriving that it is "politically democratic" and "socially igualitarian."[7].

Diagrama2. Inter-action of the trilemma in cacao



[7] Noah (2011) says that the key for *homo sapiens* to impose himself on *Neanderthal* and *Denisova*, our brother species, was in language. Until 70,000 years ago *homo sapiens* was not able to impose himself, and if we travelled back to that time we would not understand their way of thinking nor they would ours. Nevertheless, from between 70,000 to 30,000 years ago, a cognitive revolution happened: we acquired a flexible language, that connected a limited number of sounds and signs to produce an infinite number of sentences, each one with a different meaning. This provided an advantage to homo sapiens in his communication and made his abilities grow. So, if we travelled to that new period, they would learn our language and we would learn theirs. The paradox is that today one social group does not understand the language of the peasant and indigenous families; they happen to meet in the chain of actors, but in that "social jukebox" of mediation, those who have more resources collude and dance to the gregorian chant of the market, and from there look on the peasant and indigenous families as if they were the 'Neanderthal' or 'Denisova'.

This trilemma can be overcome understanding that the cacao jukebox within itself has this interaction between the social, political and economic elements, recognizing that they interact within the framework of mediation, and understanding that this is a human product. In this work we are learning about this trilemma with the different actors, so that the producer families might also hear something of Mozart, and that the other actors might take off their earphones to hear the ranchera, that the processes and results be mutually determined, and above all seeing that there are alternatives to the current mediation.

Within this context of mediation inequality, from the "lens" of the peasant and indigenous families we see that the worst is not being excluded or being seen "as a pair of shoulders" [i.e. for carrying sacks of cacao], but being forgotten in that mediation structure. From that perspective we see the social jukebox as a social collusion of private or cooperative mediation that, under the aegis of the neoliberal market, and sharing a common language, traps prices, loans, technology, donations, land and organizations, while they assume that what they are doing *per sé* helps the producer families. And from different angles, we see the importance that those who demand chocolate and those who produce cacao can recognize one another in their multiple and different paths, and sharing a "box of chocolates" , prepare themselves for the uncertainty that "you never know what you are going to get", even though yes, some type of chocolate that can change our lives.

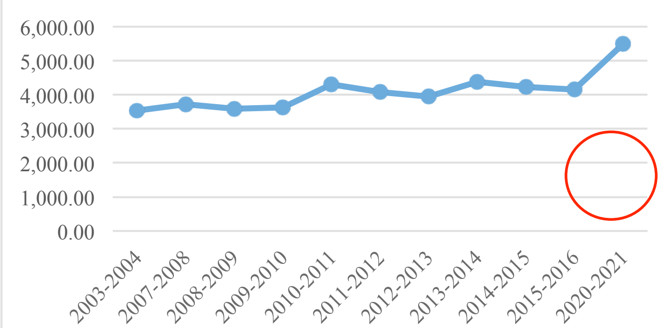
2. Demand for cacao and the behavior of the actors around cacao

Behind the supply and demand for cacao there are multiple actors and processes. In this section we look at data on cacao and its prices, and at the same time we show some of the complexity that this implies, certain irregularities and certain effects contrary to what is expected by the ideal of "supply and demand."

2.1 Demand and crisis in cacao

World production for cacao has risen from 4 million metric tons per year in 2010-11. Prices went from $2,000/ton in 2007-08, to $3,000 in 2009-10, and in the 2016-17 cycle they are going down again, getting close to $2,000/ton. The demand for fine (and organic) cacao is growing. Much of that growth in recent years is due to the increase in the income of the population in emerging countries, BRICS, particularly China and India. That increase, along with the economic recovery of Europe and the US after the 2008 financial crisis, made the chocolate industry state that the demand for cacao in 2020 will be 30% above the 2014-15 volume (see circle in Figure 1). Will the production of cacao increase by 30%?

Figure 1. Evolution of cacao (000 metric tons)



Source: based on https://www.statista.com/statistics/263139/production-of-cocoa-beans-since-2003-by-region/

This has led to talk of a crisis, that if the volume of cacao does not grow more quickly, there will be no chocolate, and with that life will no longer to be "like a box of chocolates": The expressions that follow illustrate this:

> *Cacao will run out in only seven years!" "The world will officially run out on October 2, 2020"* Star Sunday, October 6, 2013

"No more chocolate by 2020!" "Chocolate bars might be replaced by sheets of palm oil and vegetable fat full of raisins and nuts in 2020" The Times of India, April 13, 2014

"Don´t panic, but we could be left without chocolate." "By 2020, the world could have a 1 million ton chocolate deficit." The Telegraph, November 17, 2014.

"Enjoy the Easter eggs while you can: the price of chocolate is expected to double between now and 2020 as the supply of cacao drops." The New Zealand Herald; April 6, 2015.

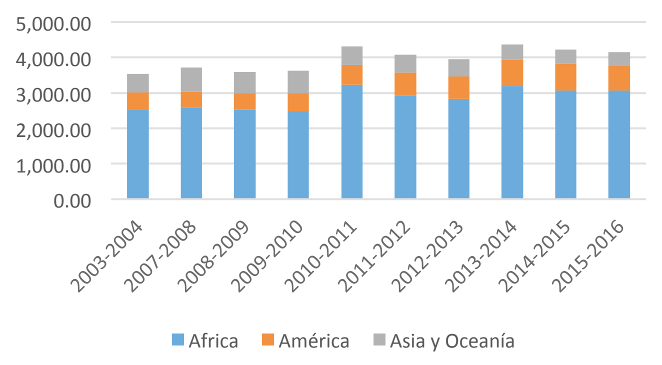
2.2 Evolution of cacao

If we accept that the economic improvement in emerging countries, and in Europe, US, Japan and South Korea has caused a additional 30% demand for cacao, in what follows in this section we study the elements of that crisis. We begin with the evolution of prices and volume, continue with the price formation of cacao within a framework of the value chain, and then we note the cacao technology and agrarian systems where cacao is produced – all these explaining the above mentioned crisis.

In 13 years (from 2003/04 to 2015/16) the volume of world cacao increased by 17%; and a 30% increase is needed in 6 years (from 2014/15 to 2020/21). Looking at Figure 2, Africa, which in 2015/16 produced 73% of world volume, in those 13 years increased by 20%; America, which in 2015/16 produced 17% of total volume, in those 13 years increased by 54%; and Asia and Oceania, which in 2015/16 produced 9% of total volume, in those 13 years dropped by 28%. World production in these 13 years grew by 1.3%/year; to reach 30% it needs to grow by 5%/year. But in 2015-16 world production instead dropped 1.8% compared to the 2014-15 cycle. According to these data, and in light of the addtional 30% demand, it would seem that there is a crisis.

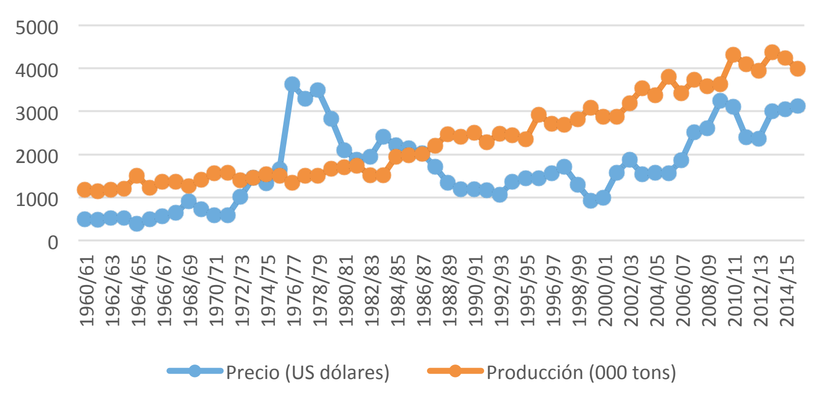
When we compare the price evolution and cacao production over a 55 year period (see Figure 3[8]) the crisis that the chocolate makers refer to can be better appreciated. In terms of prices, historically the tendency is that they increase with high variation (e.g. between 1976 and 1979 the prices were even better than what we have had between 2013/14 and 2015/16, while prices

Figure 2. Cacao production (2003/04-2015/16) (1000 tons)



Source: https://www.statista.com/statistics/263139/production-of-cocoa-beans-since-2003-by-region/

Figure 3. Evolution Cacao 1960/61-2015/2016



Source: basaed on ICCO

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[8] I am grateful to M. Segal from ICCO for sending me the information that served as the basis for Figure 3 and 7. Note: the figures on prices as well as volume for 2015/16 are estimates.

between August 2016 and February-March 2017 dropped from 3,039 to less than 2,000/MT NY price– see: https://es.investing.com/commodities/us-cocoa). Since 2006, like with coffee prices (see Mendoza, Gutiérrez, Preza and Fernández, 2011), prices for cacao improved. In terms of production, is has been nearly increasing in a linear fashion from 1,172,000 tons in 1960/61 to 4,236,000 tons in 2014/15. Nevertheless, even though prices and volume improved over time, there is no mutual influence nor correlations between both. In other words, an improvement in price does not cause an increase in production, not even in the long term. This, we argue, has to do with the price structure in the cacao chain: probably the improvement of international prices is not expressed to the same proportion at the local level – if the NY price increases by 20%, the price paid to the producer rises by less than 20%; and if the NY price drops by let´s say 10%, the price paid to the producer drops more than 10%.

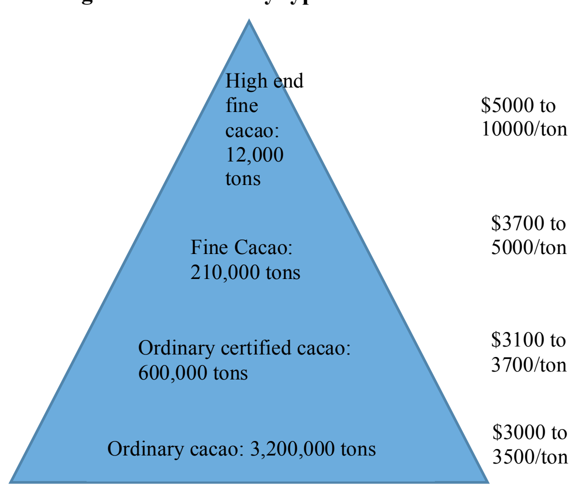
Seen historically, the price paid to the producer is dropping. Goodyear (2016) shows that the producers used to receive 16% of the final value of a chocolate bar at the end of the 1980s, and now they only receive between 3.5% and 6.4%, depending on the amount of cacao that the chocolate has; while the chocolate industry part increased from 56% to 70%; and the retailers increased from 12-17%. Ford *et al* (2016) quotes producers from the Ivory Coast and Indonesia, the countries that are the biggest producers of cacao in the world, who said that people wearing ties improve with the cacao, while they, producer families, do not, and they predict a decrease in cacao and more migration of youth to the cities.[9]

2.3 Differentiated prices of cacao and the prices paid to the producers

Fine or flavor cacao (mostly "criollo" and "trinitario" varieties) is differentiated from ordinary cacao (mostly "forastero" variety) by its flavor (ICCO, 2016). Fine cacao, which also included organic cacao, got to be 40 and 50% of total cacao at the beginning of the XX Cenutry, a percentage that dropped to less than 3% due to the turn among consumers to products with nuts, fruit and cream ingredients, and because of the avalanche of more productive varieties of cacao.

It was not until a few years ago that the demand for fine cacao began to grow once again because of the demand from Belgium, France, Germany, Italy, Switzerland, England and Japan, in recent years being between 5-7% of total volume (Royal Tropical Institute, 2013), 6% (Nieburg, 2016, based on ICCO data) and 5% (CBI, 2016, based on ICCO 2012/13). Fine cacao is produced mostly in America, particularly Ecuador, México, Perú and Colombia –in that order. In a parallel fashion, there are international agreements from 1972, 1975, 1980, 1986 and 2001 to recognize countries with fine cacao; for that purpose there is a Panel Group that under Aricle 39 of the 2010 International Cocoa Agreement selected the countries with fine cacao. So in their 2015 session they recognized 23 countries as having fine cacao, 10 of them with 100% fine cacao, among them Nicaragua (ICCO, 2015).

Figure 4. Markets by type of cacao



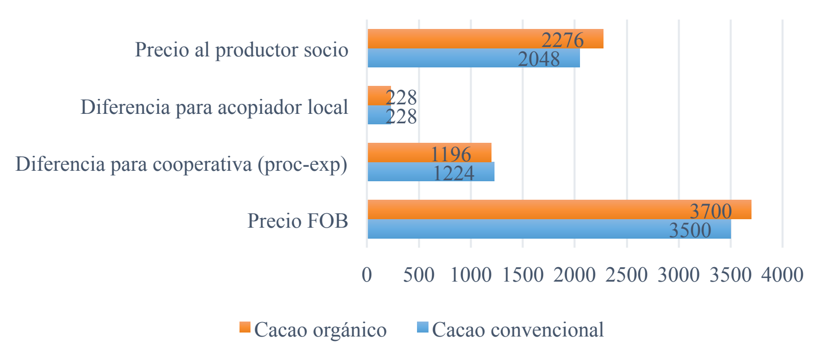
Source: Nieburg (2016) based on ICCO

This growing demand expressed an interest in more direct and transparent trade (CBI, 2016). Consumers are more concerned about their health, so want to be informed about the content of the cacao. The niche markets of the chocolate industry, particularly the

[9] The newspaper La Nación (2016) of Costa Rica reported that in the Ivory Coast many cacao producers are turning into miners (seeking gold): "it has not rained for five years and t cacao is not profitable", says a producer. These changes have repercussions for the stability and security of the country, they warned.

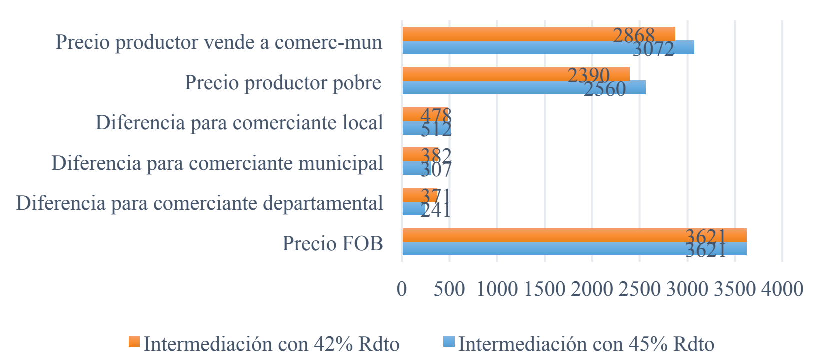
small chocolate industries, are looking for quality cacao and the stories behind the product, they want something that would connect them to the cacao producer families. These chocolate makers (and consumers) want an environmentally sustainable product and connect themselves directly with producer families, and many of them want to do it without the mediation of certifiers like FT, Organic, UTZ and Rainforest[10]. Chocolate makers want to have a role in the fermentation and drying of cacao that the producer families and their cooperative organizations do, and want the producers families to test the chocolate. This market opportunity for fine cacao is expressed in Figure 4: the finer the cacao and the more direct relationships that exist between between the actors of the cacao-chocolate chain, the better the prices are; the more standardized the cacao is, a mass product, the lower the prices are.

Figure 5.Cooperative mediation ($/MT) (2015/16)



Nevertheless, those conditions for the improvement of prices - to the extent that direct relationships improve, to the extent that it rises up the pyramid of Figure 4 - constitute a real challenge. Taking the case of Nicaragua, a member country of the ICCO list with 100% fine cacao, prices have not improved, rather they have gotten worse. Let us take a look. Based on price data from the producer to the FOB price, something of that described reality can be illustrated. In cooperative mediation (Figure 5) and in private mediation (Figure 6), the export prices in the 2015/16 cycle were between $3500 and 3700. The price difference between organic and conventional cacao is negligible. The price to the producer tends to be higher in the private mediation, which is probably due to the high costs of mediation in the cooperative (Figura 5), and on the private mediation side (Figure 6), to the work of drying that the producers take on, and to the manipulation of the moisture content of the cacao on the part of the buyers.

Figure 6.Private mediation ($/MT)(2015/16)



The costs of the cooperatives tend to be high, partly because of the low volume of cacao that they collect, costs for fermentation services of the cacao - they receive cacao pulp from the producers – and

[10] Many chocolate makers are beginning to perceive that the certifiers could be having counterproductive effects. They see that more can be done in terms of social and environmental impact directly, than with the mediation of the certifiers. “Many importers and chocolate makers working with fine flavour cocoa consider certifications counter-productive, as they impose unnecessary costs on farmers. There is also a lot of scepticism among fine flavour cocoa actors towards the ecological and social impact of certifications, as they feel they can do more by telling the story more directly, without a label.” (CBI, 2016). Thomas (2016) describes the decision of Cadbury, a well know chocolate maker, to get rid of the FT seal, because they prefer to do it directly with their own mechanisms.

because of their administrative costs that generally are higher than those of private mediation. The yield (conversion of cacao pulp to dry cacao) is less in cooperative mediation (3 lbs of cacao pulp for 1 lb of dry cacao), in other words, 33%; while in private mediation the producers or "collectors" (local merchants) dry the cacao without fermenting it (cost savings) and manipulate the moisture content of the cacao: if they sell dry cacao with 45% moisture content, it means 3 lbs of cacao pulp turns into 1.35 lbs of dry cacao; if they sell dry cacao with 42% moisture content, it means 3 lbs of cacao pulp turns into 1.26 lbs of dry cacao[11]. And the social element is felt here, the more geographically isolated a producer is and the less volume he has, the lower is the price for his cacao ($2,390/ton or even less) and less tolerance for the degree of moisture content his cacao has.

Prices frequently vary and affect the producer more. Up until the beginning of the 2015/16 cycle the prices for organic and conventional coffee in Sasha-Nicaragua were the same. By the middle of the 2015/16 cycle the prices differed under cooperative mediation, between November and December of 2016 in one cooperative the price of organic cacao for the producer was C$12.25/lb, and conventional cacao was C$11/lb. Then prices dropped: in January and February 2017 conventional cacao was at C$7/lb for the producer in the cooperatives, and between C$7 and 8/lb under private mediation. Proportionally that fall in prices between December 2016 and January 2017 affected producers more: one chocolate company under cooperative mediation dropped the price from 2,996 a 2,466/MT, in other words the cacao was worth 17.6% less, while the price to the producer dropped from C$11 to 7/lb cacao in pulp, in other words, it was worth 36.6% less for the producer.

From this it can be seen that if the producer family invests in the quality of their cacao and they are not paid for that quality, if they invest in organic cacao and the difference in prices is minimal, and if in general, the part of the value of cacao for the producers continues to fall in relation to the final value of cacao, it will be difficult to increase more cacao in a sustainable way. On the other hand, if the chocolate industry lowers the purchase price paid to the cooperative, and the cooperative then lower the price paid to the producer relatively more, because of local competition the chocolate industry puts at risk getting cacao volume from that cooperative. The previously mentioned opportunity has not been for the producer families, and that can affect the chocolate industry itself. And if that is the situation of the small producers of the world who produce 90% of the world volume of cacao, clearly Eve will go back to Eden, because there will be less chocolate, and it will be more expensive.

2.4 Modern technology at odds with diversified systems and demand for quality

The criollo or trinitario variety on agro-forestry farms has a lower yield and is susceptible to diseases (CBI, 2016). That is why in Ecuador itself, the country that exports the most fine cacao, the CCN51 variety of ordinary cacao is growing rapidly, consistent with the "modernization" policies of cacao: monocrop plantations, research focusing on high productive varieties that are resistant to insects and diseases (CBI, 2016).

There is also research on the criollo or trinitario cacao, but the research done by CATIE in Central America on cacao is supported by international aid, without the cooperatives and their members being interested parties in them – except for the required formality of "you don´t look a gift horse in the mouth." In other words, they are studies paid for by the donors, that do not respond to the institutionality of the cooperative family members nor to the state. An example, the Dalila cooperative in Nicaragua has a clone garden (grafted plants of the criolla variety of cacao) by decision of the donors[12], precisely to support the

[11] I am grateful to E. Fernández and K. López for supporting me with data that contributed to these calculations.

[12] There are other clone gardens in Central America. For example, in Guatemala Dr. Mynor R. Otzoy (University of San Carlos) gathered seed from different parts of the country to rescue criollo cacao (Theobroma cacao L.), "old seed used by the Mayas". His purpose is to recover it and reproduce it. See: Gonzalez (2013).

productivity of their members along the lines of fine cacao; but the members, in spite of the fact that the plants from the clone garden were free, did not accept them; another cooperative from another province, with donor funds, bought seedlings from that clone garden. The members refused to include grafted seedlings from the clone garden in their farms, not out of ignorance, but because of a combination of technical, economic and social reasons that will be described later on in the text.

This is to say, on the one hand, it will be difficult for the producer families to invest in more cacao at the cost of their diversified systems, or in quality, when they are not being paid for that effort for quality; on the other hand, large monocropping companies can increase their cacao areas, while in the long term the environmental costs, proliferation of more diseases and social costs could be greater.

Based on this, the alarmist expressions in view of 2020 do have support. It will be difficult for volume to increase by 30% in just 6 years, when in the last 13 years it only increased by 17%; even more so if the part of the final value of chocolate that the peasant-indigenous families get decreases year by year. It is difficult if the opportunities for fine cacao do not get to the producer families, and the investments that those families make in organic cacao are not compensated. And it is difficult for the producer families to go back to concentrating only on cacao, when precisely their agro-forestry systems have allowed them to resist centuries of dispossession by "modern" agriculture. We are beginning to understand why the sea is not opening up.

3. Pondering policies to promote the production of cacao

In the face of this situation, how should the institutions of society, the State and the market respond? Reviewing studies on different countries, we see a common pattern in the polices: governments, companies and aid agencies offer plans to increase cacao areas and productivity, they promise joint investments with large enterprises, and bet on the formal structure dealing with fine cacao. These policies express clear ideas and interests, even though compared with policies for other activities like ranching, sugar cane, African Palm or peanuts, activities in conflict with environmental sustainability and generally under the control of large enterprises, support for cacao – a more environmentally friendly crop and cultivated mostly by small producers – is minimal (ACAM-EFE/Honduras, 2014).

The actors (companies, governments and aid agencies) bet on price improvement through international formalities, they promote cacao as part of modern agriculture, they promote technologies to increase its productivity, centralize the processing of cacao to increase its quality, and they back programs of associativity and inclusive businesses committed to fine cacao.

3.1 Search for good markets as effective formality

Governments, companies and aid agencies try to to get their countries to be recognized by the International Cacao Organization (ICCO) as producers of fine cacao, and in many cases, to be recognized also for having old genetic material. See Table 1 with the 23 countries accepted as producers of fine cacao in the world. The assumption is, being part of the 23, avoiding investment in the construction of direct relationships, you have access to high prices like those show in Figure 4. Of the countries in Central America, Costa Rica and Nicaragua are considered to have 100% fine cacao. 50% of the cacao of Honduras, Guatemala and Panama is considered fine, and El Salvador is not part of the 23 countries.

> Nicaragua won recognition for being a producer of high quality cacao among the chocolate makers worldwide, which is translated into greater demand, better prices, better opportunities for all the cacao that is produced in Nicaragua, because each grain that is produced here is already considered to be fine cacao that gets higher prices than those published in the New York Exchange … additional prices of up to US$7,000 and US$12,000 per ton. (Gerardo Páez, coordinator of the Cacao Sector Commission, Association of Producers and Exporters of Nicaragua, quoted by Bejarano, 2016).

> Honduras… is recognized internationally as one of the best in the world (in cacao)...Almost all the Honduran cacao is organic. (Anibal Ayala, manager of the Association of Cacao Producers of Honduras, in El Heraldo, Honduras, August 14, 2016).

Table 1. Fine cacao producer countries, ICCO Panel 2015

	Countries	% fine cacao
1	Belize	50
2	Bolivia	100
3	Colombia	95
4	Costa Rica	100
5	Dominica	100
6	Dominican Republic	40
7	Ecuador	75
8	Grenada	100
9	Guatemala	50
10	Honduras	50
11	Indonesia	1
12	Jamaica	95
13	Madagascar	100
14	Mexico	100
15	Nicaragua	100
16	Panama	50
17	Papua New Guinea	90
18	Peru	75
19	Santa Lucía	100
20	Sao Tome and Principe	35
21	Trinidad and Tobago	100
22	Venezuela	100
23	Vietnam	40

Having that dream of high prices, and taken as given that those high prices favor small producers, they seek to stay on that list of 23, because the ICCO Panel does a review every two years, and can remove countries from the list, decrease or increase the percentage of their cacao as fine cacao, or keep them on the list without change.

The second assumption is ensuring the genetic origins, or keeping another variety from imposing itself on the criollo or trinitario, to keep the country on the list of the 23. Likewise, some Agricultural Technology Institutes work to support the cacao variety, in some cases, with the support of aid agencies, they establish cloning nurseries to generate grafted plants and/or install laboratories to cup the quality of the cacao.

The fact that a country is a member of the list of countries with fine cacao, and that they have invested in technology (criolla and trinitario variety), nurseries and laboratories, contributes to the negotiating capacity of the companies or exporting organizations that are looking for better prices. This does not mean that automatically their cacao would get the export prices indicated in Figure 4, those of "high end fine cacao"; and for that reason it is important to know the long route that countries like Ecuador, Perú, Colombia and México had to build direct connections with chocolate industries located in niche markets.

3.2 Promoting cacao in harmony with "modern agriculture"

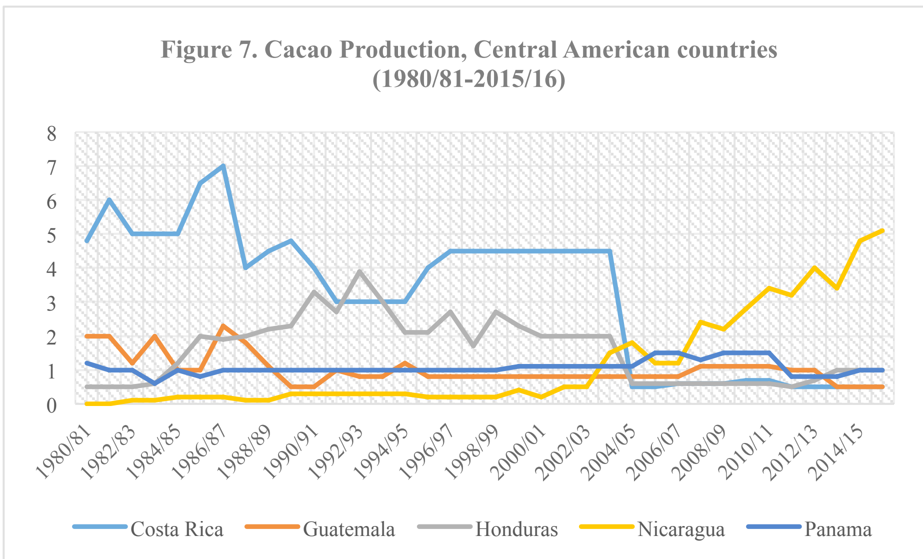
A second action of the actors is to promote expanding the production areas in buffer zones of forest reserves, and even in zones with a long farming tradition in each country..

- Nicaragua. Álvaro Baltodano, Presidential delegate for investments, explained that national and international enterprises will cultivate "more than 15,000 hectáres in the Río San Juan Province, the Caribbean Coast and the Central Pacific areas." "In addition to the investments that already exist in the country on cacao, we are interested in them coming in from the United States and Europe who have already explored and are identifying places for developing their plantations and nurseries." According to the Ministry of the Family, Community, Cooperative and Associative Economy (MEFFCA), Nicaragua has "land apt for growing cacao almost everywhere in the country and there are some 500,000 manzanas, which can be grown under agro-forestry systems, especially in the Caribbean Coast." (López,2016)
- Honduras. The government set aside 525 million Lempiras to promote the cacao crop. The goal is to reach by 2020 the production of 6,000 tons. There is a TRUST FUND that the producers will access through private banks .(Jacobo Paz, Minister of Agriculture of Honduras, in: El Heraldo August 14, 2016).

- El Salvador. The "Alianza Cacao" Program, between producers, the Government of El Salvador, the US Embassy and non profit organizations, proposes to reactivate 14,000 manzanas with an investment of $25 million dollars in a term of five years. According to Érica Dahl-Bredine, country director for Catholic Relief Services (CRS), the implementing organization of the program, they support the producers that grow cacao in association with coffee, or turn the low altitude coffee farms into cacao farms in agro-forestry systems. And according to Orestez Ortez, the Minister of Agriculture and Ranching (MAG), the reactivation will be staggered, from some 3,000 mzs to some 14,000 mzs. (Portillo, 2014)

Even though policies differ from country to country, some with more emphasis on small producers and others on large companies, some with more support from aid organizations and others with a larger role for the state, three premises underly the policies: that there is a willingness to plant cacao, and there is enough area to expand cacao areas or turn coffee farms into cacao farms, and that cacao is profitable, so that, with the support of State laws and institutions, producer families might cultivate cacao. This last assumption refers to the fact that those who are going to expand more area are the small producers (in Honduras and Guatemala, for example), and large "national and international" companies (in Nicaragua, for example) with "plantations" and their "nurseries". Because it is believed that cacao is profitable in plantations cultivated by large companies.

The three assumptions are under dispute. Concerning the first, seen at a global level, the production of cacao in the countries of Central America is insignificant. In 1980/81 they represented 0.50% of the world total, dropping to 0.12% in 2005/06 and rising to 0.20% in 2015/16. As can be seen in Figure 7, Nicaragua is the only country of the region that has increased in a sustainable way its production, at least since the 2000/01 cycle.



Source: based on ICCO

Concerning the assumption that there are areas for cacao, which assume the extensive path for increasing cacao volume, assumptions shared also by the practice of the companies and financial institutions[13], this should be considered cautiously. Historically cacao has been grown in colonization areas (areas of the agricultural frontier or indigenous lands), forest areas that have been reduced to their minimal expression, which means that the possibilities of expanding cacao areas (instead of increasing the productivity of cacao) is difficult. Then it will be difficult for the areas with coffee or cattle to cede to cacao, due to the fact that their profitability continues to be higher than that of cacao, even though the effect of climate change could make that conduct change. The paradox is that the populations of the countries in the North with more income, are demanding that the lower income families of the countries of the South, those that

[13] Chocolate companies tend to increase volume through new cooperatives, while the old cooperatives fall into crisis and then go broke. This practice also responds to that "extensive culture": they are not able to get the cooperatives to consolidate as effective organizations, and add new organizations that might provide them cacao.

were expelled from the best lands in each country, perform the miracle of increasing the production of cacao and save chocolate. Governments, on their part, instead of discerning and responding to the paradox, talk about "potential areas apt for cacao" in thousands of manzanas; they refer to areas already worked for decades, with soils that require the high use of inputs, which would lead them to opt for ordinary varieties of cacao like CCN-51, which is consistent with their policies of attracting foreign investment and promoting cacao plantations, but at odds with the formality of keeping the countries on the list of the 23 countries with fine cacao.

And concerning the assumption about the profitability of cacao, it seems more true for the export sector and the small groups in the different phases of the mediation chain, and for the large companies with the variety of ordinary cacao; while the profitability of fine cacao for the peasant and indigenous families is in doubt. Export prices are not clearly higher to what the national market of each country of the region is offering. Export prices for fine cacao, so far, are not close to the status of "high-end fine cacao", rather in the 2016/17 cycle the FOB price went even below the price for "ordinary cacao" in Figure 4. A higher international price is not automatically a higher price for the producers (see section 2.3).

3.3 Promotion of technologies that increase productivity

A third action on the part of the actors is commit to preserving the criolla or trinitario variety and block the incursion and/or expansion of the CCN-51 variety (ordinary cacao).

- Nicaragua. In Nicaragua it is reported that the Nicaraguan Institute for Agricultural Technology (INTA) is validating a variety of criollo cacao, found in Pacaya (Masaya Province), a variety of an old cacao used by the French in Nicaragua between the years of 1830 and 1850, a variety at that time known as "alligator cacao". This variety, because it is "highly resistant to climate variability, high yield, and great quality", is a "criollo different from the cacao of Mexico, Peru, Venezuela or Ecuador, in a differentiated market, could end up costing more than US$8,000 or US$10,000 per ton" (M. Navarro, director of the international aid organization VECOMA). (Bejarano, 2016).
- Honduras. We won the prize for the best new variety of experimental cacao of Central America and the Caribbean…The winning variety is the Indio Amelonado Rojo [Red Melon-shaped Indio], cultivated in Copan. (David Posada, manager of the Xoco Fine Cocoa Company, Danish company that exports cacao from Honduras, in: Torrez, 2016).
- Honduras. The Association of Cacao Producers of Honduras promotes genetic studies of cacao to improve the organoleptic factors of cacao and increase its quality (El Heraldo, 2016)

The commitment to recover and reproduce the criolla variety is endorsed on the international level, as indicated by the prize that Honduras won. Nevertheless, investment in technology on the part of the State for these varieties continues to be negligible. Genetic studies tend to be pretty isolated. And above all there is a lack of cacao studies in its agro-forestry context.

The large companies and State institutions, generally, have looked for high productivity and disease resistant technologies, that generate high volume and financial earnings, but at the same time, according to CBI (2016) are not sustainable economically, environmentally or socially. Meanwhile the organic products or criollo and trinitario varieties have not been on their list of interests, because they are varieties less resistant to diseases and pests, and have less productivity than the Forastero variety, but they have better quality and more positive environmental impact (CBI, 2016). The fine cacao varieties and technologies are worked mostly by peasant and indigenous families, who together produce large volumes, but who individually (by family) produce miniscule amounts. These families produce them as part of their agro-forestry systems, not as monocropping plantations. This positive environmental impact, which is possible in agro-forestry systems managed by peasant and indigenous families, is of interest to industries with high value segments of the market.

In cases like INTA-Nicaragua, where they decided to do studies on varieties consistent with fine cacao, something that was very praiseworthy, paradoxically however producer families did not correspond in kind. To explain the reasons, let us illustrate this with a concrete case of the members of the Dalila cooperative. This cooperative accepted external resources to establish a clone garden of grafted, highly productive cacao plants, as well as to provide technical assistance under a crop logic (focused on cacao). The members of the cooperative could take those plants without having to pay for them. But they rejected them. Why?

> In the countryside we are accustomed to criollo cacao, because it grows big and bears fruit all over, while the grafted plant grows small. Some time ago some of us took grafted plants from another cooperative and they did not grow. And even though it might produce more, we don´t like them because of their costs; there are producers that live far away, and those plants get damaged along the way; the grafted ones would have to be planted 3 x 3 and the criollos we have at 4 x 4. Nor have we seen that these grafted plants produce much in our communities.
>
> Previously we cultivated a variety of corn that grew tall, each plant produced even two cobs; it was when we had fertile land. Afterwards a variety of short corn came in, we did not like it, but we got accustomed to it because our lands were no longer fertile, and that variety did produce on that land, even though it needed more weeding. Now the tall corn does not produce. Would it be that the grafted cacao would produce more on land that is poorer? (F. Peña, harvest collector of the Dalila Cooperative, Sasha, November 2016[14]).

If the logic of the producer families was to make money, they would immediately go into ranching, including milk cattle to have daily income, benefitted also by the continuous improvement in the roads and with better possibilities of getting loans in the formal banking sector. Cattle is more profitable than cacao; in fact, the livestock areas in cacao growing municipalities are increasing.

The logic of peasant and indigenous families, nevertheless, is to diverify their agro-forestry systems and maintain the fertility of the soil in order to feed their families. Therefore, if the price of cacao paid to the producer, for some "miracle" were to increase proportionally with the increase of international prices, the peasant and indigenous families would improve their cacao along with their other crops. This has been the strategy in order to not lose their land. If they specialized only in cacao, and then after making themselves dependent on cacao, prices went down, they could end up losing even their land. Under that logic, the family thinks in the following way: if I plant grafted cacao and they give me technical assistance for the cacao, accepting that I am going to get a larger volume and a better price, that will require more inputs and much more inputs than years ago when my land was still good, where am I going to get money to buy the inputs? If I manage it organically, with what material am I going to fertilize it and who in the family is going to help me make organic fertilizer if all my children are in school? If I am able to do it, neglecting my other crops, what guarantee do I really have that they are going to pay me better and those good prices are going to be maintained over time?

From this, productivity has to do with the technical aspects (variety, density and management of the cacao in diversified production systems, moving plants in bags over long distances), economic aspects (resources for fertilizing or to make fertilizer, prices, availability of labor), social aspects (functioning of the family and the cooperative) and the political part (peasant autonomy or dependency on the strength to make money at whatever cost). This combination of aspects vaporizes the belief in a "miraculous variety" from those who preach that "with just planting such a variety you produce more", and makes us understand that productivity has to do with the area (production systems in certain spaces) under family and associative modes of organization (e.g. centralization of the clone garden vs nurseries on farms), and mediated by institutions (e.g. mediation, inheritance, sharecropping).

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[14] This quote was expressed to the author, to E. Fernández and K. López). Likewise the other quote from Peñaranda.

3.4 Centralization of processing to increase the quality of high end fine cacao

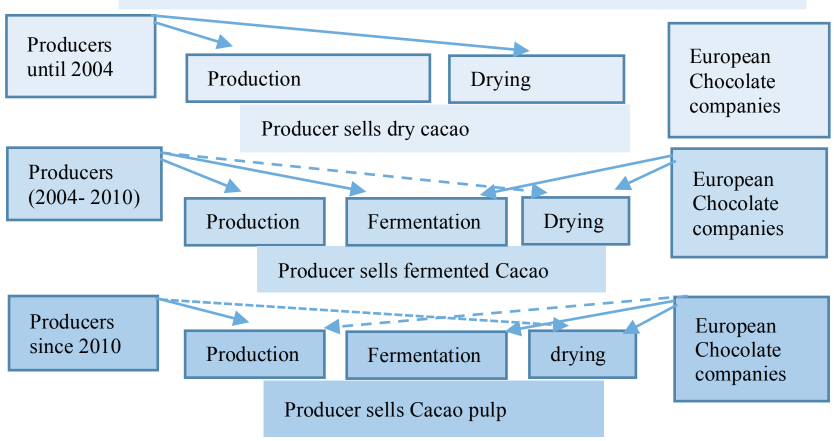
With that same logic of the cloning garden and centralized technical asssitance, the fourth action of the players in cooperative mediation is increasing cacao quality through concentrating investments in processing. The principal argument is that cacao quality mproves if the cacao is collected as pulp and processed in one place with "homogeneous fermentation." The traditional manner has been to harvest the cacao, dry it and sell it, which is adequate as a subproduct for an infinite number of products like pinolillo, tiste, base for baking, coffees, drinks. While promoting cooperatives in Nicaragua, slowly the chocolate companies demanded processed cacao, that is to say fermented and dried cacao, in order to make chocolate. How did this process of concentration take place?

> Flesh changed the model for delivering cacao, because they said that they were getting bad quality cacao, that they buy based on the flavors of the cacao. Previously they had told us that it depended on the <u>size of the cocoa bean</u>, while <u>now it is the flavor</u>, so they tell us: "when you ferment and dry it in your home, each one dries it differently, that is why the cacao comes in with a wood flavor, others with a smoke flavor, others with a soil flavor. Better to take it to the cooperative, so that it all receives the same treatment and gets one flavor." (N. Peñaranda, harvest collector of Dalila).

It is believed that homogeneous fermentation provides the quality that demanding markets require, and that when the peasant families ferment and dry it, the needed uniformity is not obtained to export a container. An assumption behind this logic is that it is presumed that the cacao from all the zones with different ecologies (altitudes and ecosystems) in a municipality is standardized cacao, and that its quality (flavor) can be determined in a centralized process, regardless of the management that it receives, the altitudes and ecosystems where the cacao was grown. This hypothesis assumes that demand will come only from the market that seeks ordinary cacao for standard chocolate for massive consumption. Note, this is an assumption that ignores the importance of fine cacao, its potential to get to high value segments of the market, and pushes the cooperatives to be the means for the "homogenization" of the production of cacao coming from small producers. This way it would seem that the cooperatives are serving more the large companies that are betting on standard products.

Correspondingly (see Diagram 2), a peasant member of the cooperatives that used to sell dry cacao (light blue color), instead of scaling up to other phases of the chain, quit drying cacao and was left to selling cacao pulp (dark blue color). On the other hand, the international companies bought only dry fermented cacao, and one – the largest – importer of cacao for their country, moved into exporting, and also into controling the different phases of the chain, including establishing their own cacao plantations. This process, obviously, has been full of tensions: let us hear from one of the actors that was a part of those disputes.

Diagram 2. Control of the cacao chain in Nicaragua



> With European advice, we wanted the peasantry to turn in fermented cacao, but since there was a multiplicty of qualities, the Flesh company pressured to have better quality, and demanded 0% mold. We thought of having 2 subunits to get more cacao and ferment it, where some peasant families would ferment it with the work of the women, and that the Dalila cooperative would pay them a preferential price. But Flesh wanted it to be centralized, and that is what there is now. In Sébaco the idea of Flesh was to have that installation to dry cacao, a place that was less humid, they even thought about renting the patio of a rice plant; the idea was to produce cacao in humid zones and 80kms away dry it under better conditions. After seeing the conditions where the peasants were not able to ferment it, little by little they ended up installing a fermentation center in Sébaco. Now they do accept a percentage of mold. (H. Konrad, Director of RDA NGO)[15].

The producer families organized into a cooperative, with the support of that NGO, collected fermented cacao from peasant families, then moved to collecting cacao from peasant sub-units that would collect and ferment cacao, and in the end the cooperative fermented all the cacao collected. What follows is seen from the side of the peasant families: I can ferment the cacao and dry it, after a number of times now I have done it; but when they tell me that my cacao smells of soil, that there is too much moisture in my area, and when my cooperative repeats what the company says, that they want 0% of mold, how can I insist on fermenting it at home or do it as a group in my area? Power relations are imposed using technical language ("flavor", "mold", "moisture" and "quality") , and in that, the role of the cooperative being an instrument for its members loses ground.

3.5 Promotion of associative organizations and inclusive businesses

The fifth modality of action in support of cacao has been the promotion of cooperatives under the leadership of large companies and international aid agencies.

Forming cooperatives to get cacao was the first strategy. In the case of Nicaragua, the aid worker H. Konrad at the end of the 1980s got interested in cacao; and in the 1990s Konrad, through the RDA, financed by the Flesh company, promoted the organization of the Dalila cooperative. Flesh would buy cacao in small quantities at prices below the national market price, and requiring high quality. At the end of the first decade of the 2000s, Flesh became convinced of the quality of the cacao in Nicaragua, doubled and even tripled the price paid, and demanded large volumes of cacao; to do so it allied itself with a national NGO, ABC, and they formed a dozen cacao cooperatives. In a parallel fashion, Flesh invested in its own infrastructure to ferment and dry cacao to improve the quality of the product; in a short period of time, 2012, Flesh became convinced that its increasing demand for cacao in Nicaragua was not being met by the cooperatives, which is why it established a 1500 hectar plantation of cacao.

Why so much interest in cacao in the country? *"Because the Ivory Coast and Ghana, the two biggest producers of cacao in the world, have child labor practices and use very noxious chemical inputs, and consumers are looking for chocolate with cacao from countries that do not have these practices, and that is why we buy cacao in Nicaragua and starting in 2018 we will only buy certified cacao,"* a Flesh official told the board of the Dalila cooperative. From this we see that Flesh, through the NGO RDA and later ABC, and accompanied by international aid organizations and regional research centers, formed the cooperatives in order to get fermented cacao, while they slowly entered into the processing and production phase. Without forming the cooperatives it would never have gotten the cacao from the peasant and indigenous families, nor would it have gotten fermented cacao, nor would it have entered into the processing phase and then the production phase of cacao.

Organizing public-private programs was the second strategy. A program in Central America is the Modern Inclusive Markets Program, whose objective is to "facilitate spaces for dialogue and exchange

[15] This quote was said to the author and E. Fernández.

among public and private actors in order to jointly build a common vision for the cacao sector" (K. Janssens, regional representative of VECO MA) (López, 2016). According to the actors included in this program, they have three keys for success (APEN-collaboration, 2015). The first is that they get "high quality product, which is rewarded (by the chocolate industry) which pays them an additional 40% above the New York Exchange price in the United States." The second is that "in Europe (the chocolate industry) is second in the sale of chocolate bars, after the Milka brand…It has a project to create next a line of Nicaraguan chocolate with dual certification. Success (for that chocolate industry) is rooted in the direct connection between the company and the producer, that becomes an alliance that allows them to have more communication, better planning for the production of their chocolate, and make quality and quantity adjustments." And the third is that the Alliance is a Regional Learning alliance involving aid organizations and academic institutions.[16]

That program in the case of Nicaragua is an alliance between the Flesh chocolate company and Dalila as an"example of the success of inclusive businesses." Nevertheless, the Dalila Cooperative[17] was on the brink of bankruptcy between 2015 and 2016, was rescued in large measure with the support of another chocolate organization; the cacao prices that Flesh pays have difficulties in reaching the level of "ordinary cacao" in Figure 4. Within the framework of this program some aid organizations, probably because of the prevalence of distrustful relations with the cooperatives, administer their resources separately with their own staff, putting in doubt the "direct connection" and "learning alliance."

Summarizing this section, companies, aid agencies and governments respond to the demand for cacao through various mechanisms. They try to get each country included in the ICCO list as a country with fine cacao to get prices that are 3-4 times higher than the New York price. They try to increase the production of cacao based on increasing areas, large companies with plantations, technology that includes high productive varieties, and the organization of cooperatives so they can channel resources, technical assistance and training, and in exchange they collect cacao. They are looking for fine cacao centralizing its processing, establishing a cloning garden to produce grafted cacao plants, and promoting programs that have external resources to connect public and private actors at the service of markets. These mechanisms, nevertheless, are disputed: international prices for cacao have not increased substantially as a result of the inclusion of these countries in the ICCO list, the small increase in exported cacao did not translate into an increase in the price paid to the producer, the grafted plants were resisted by the members themselves, the organized cooperatives and associations are falling into systematic crises. Why is it that these good intentions of good prices, technologies and investments are not making a difference in the lives of the producers? That is what the next section addresses.

4. The mediation structure that is absorbing the resources and the opportunities

The policies for increasing cacao volume and quality do not seem to have worked. We argue that this is due to the fact that the policies combine a logic of hacienda, plantations and centralization of decisions and investments, which in the long run leads to greater dispossession of small producers and to selling quality cacao as ordinary cacao. These policies are absorbed by the mediation institution that constitutes

[16] There is another program called cacaomovil (see: http://www.cacaomovil.com/), launched in 2016 and supported by Lutheran World Relief with funds from aid agencies from the USA. It is a program that benefits 4,000 producers from Honduras, Nicaragua and El Salvador. On that webpage can be found a "tool box" of 10 guides, from how to establish nurseries to its commercialization.

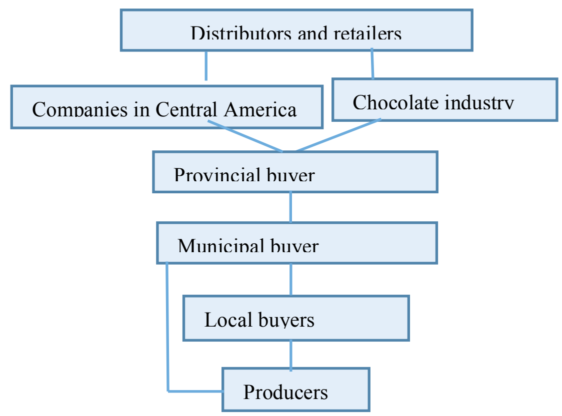
[17] In that same municipality (Sasha), 3 organizations have been working on collecting and fermenting cacao. The Dalila cooperative went into crisis and is in the process of recovery; the other cooperative was intervened by ABC, the organization that imposed their own staff on their management-administration; and the third was an association went bankrupt in 2016.

the "black box" of the cacao jukebox. The mistake lies in trying policies without transforming the mediation institution. Here we analyze that historic mediation institution and we argue that cooperative mediation was absorbed by it.

4.1 Historic mediation

There is a transnational structure around products like cacao: see Diagram 3. Seen from below, the lowest income producers, who live far from municipal markets and have less cacao volume, dry their cacao and sell it to local buyers; while the producers with more resources, closer to the market and that have a larger volume of cacao, sell their product to the municipal buyers, who homogenize the drying of the cacao that is bought and sells it to a provincial buyer; who in turn sells it to national and international companies, where they turn the cacao into chocolate or use it as a subproduct. Seen from above, the physical investments, earnings and human capital are concentrated in the upper part.

Diagram 3. Cacao mediation



The institutional structure of mediation underlies the product flow. The first that appears in the structure is the centralization of decisions about prices, measuring the weight, degrees of moisture and the determination of the quality of the cacao. Correspondingly, the producer takes his cacao to the local merchants who tell him the price is such and such; likewise the local merchant passes it to the municipal merchant, until it reaches the exporter who tells them, "the stock price went up or down." Each actor in each phase sets the price, depending on the price that someone "higher up" gave them, and depending on the profits that he wants to get in the context of the competition that he has; if "from above" the provincial merchant says that the "prices dropped from C$37 to 35/lb for dry cacao", the municipal merchant that previously paid 34 to sell it at 37, now assesses whether to pay 32 or 31, and so successively to the local merchant, and even the producer that has the option of telling his wife that cacao went from 29 to 25. The meaningful phrase that is repeated in the chain is: "this is the price." From this we understand that the more the price varies, the more space the merchants have to manuever with those "from below", while at the same time they are resigned to the price determination of those "from above."

This mediation is unquestionable and discriminatory. The decision from "above" is not questioned, under the risk of being left out of the mediation, and above all because it is thought that "the one below" lacks (business) capacity. This combination is what has intensified the sense of resignation and providencialism in producer families, while at the same time acentuating the power of mediation as the only path of life.

In the face of this centuries old institution, the producer families resist in a differentiated way, while they appear to submit to it. Their end goal is to feed their famiilies and avoid becoming farm workers; they reject the logic of only making money, at the same time they experience relationships of gender inequality within the family; they diversify their crops and their income, conserve their water sources, while at the same time they deforest; they manipulate the weight of the cacao (e.g. 43 or 45 grams of moisture in Figure 6), they sell cacao pulp and dry cacao, and they cultivate connections with various merchants. From here we see that the more they diversify their production, the more they look to feed their family as a priority, and the more the whole family participates in their decisions, the more resistance they offer and the more they persist with that logic, and vice versa.

4.2 Cooperative mediation

Cooperative organization is presented as an alternative to mediation. In this work we argue that the historic mediation is absorbing cooperative mediation and the fair trade structure.

Diagram 4. Chain of actors "without" mediation

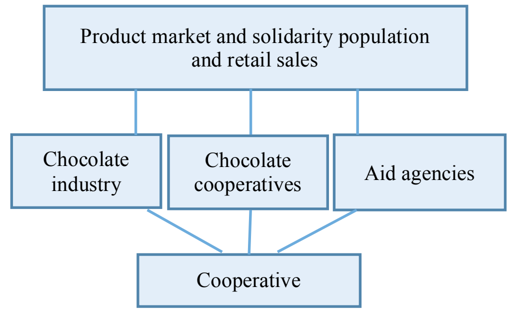
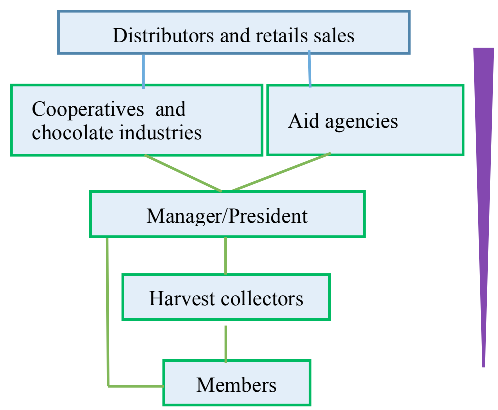


Diagram 4 shows us how they appear formally. Companies assume that they are buying cacao from the cooperative. The aid organizations and State institutions assume that they are relating to the cooperative. The producer families, on becoming members of the cooperative, believe that they are its members. The economic and legal transactions confirm this mode of proceeding. So they talk about "direct relations", "fair prices" and solidarity economics."

Nevertheless, in scrutinizing the way decisions are made about cacao prices, weight and quality, the type of relationships that exist between the cooperative and the buyer companies, between the cooperative and the aid agencies, between the members and the technical staff, and between the members and their leaders, it can be seen that the historical form of mediation has imposed itself again: See Diagram 5.

Diagram 5. Cooperative mediation



The president and/or manager of the cooperative, the day after his/her election, experiences something magical: the members ask about the price of cacao and about loans; the companies and organizations ask about cacao and ask because they are executing projects. This pressure from the environment forces them to accept what comes "from above" without questioning, and to make decisions concerning those "from below" without accepting questions. The buyers and the aid agencies let the president and/or manager know "this is how the price is", "this is how the project is." The president and/or manager ends up playing the role of the buyers: they do not inform the members about their decisions, the audits are only a formality, they move between the demand and supply of products and capital, they repeat what the company tells them ("if your cacao does not have UTZ certification I will not buy your cacao") and take on the logic of the companies: what is important is collecting cacao and exporting it, in other words, what is important is money.

Lets look at this: the chocolate industry buys cacao not from the cooperative, as the formality of Diagram 4 shows, but from the president or the manager of the cooperative (Diagram 5), and the president/manager buys cacao from the harvest collectors who in turn buy cacao from the members. Correspondingly, the members treat the manager and/or president as if they were buyers, with the difference that they are also the "door" to access some projects. In this way the historic form of mediation is absorbing the cooperative and FT mediation. The associative side of the chain of actors of the cooperative and the movement nature of FT disappear; FT and UTZ certification and the aid agencies, seen from diagram 5, are functional for that despotic mediation. The business side controls the chain of actors – as the economy does society. The members appear with the only role being to produce cacao. A good part of the aid agencies tend to strengthen that mediation stucture when they repeat these type of things: "If the cooperative gets into selling cacao it has to operate like a business", "the weakness of the cooperatives is that they do not have a business mentality"…

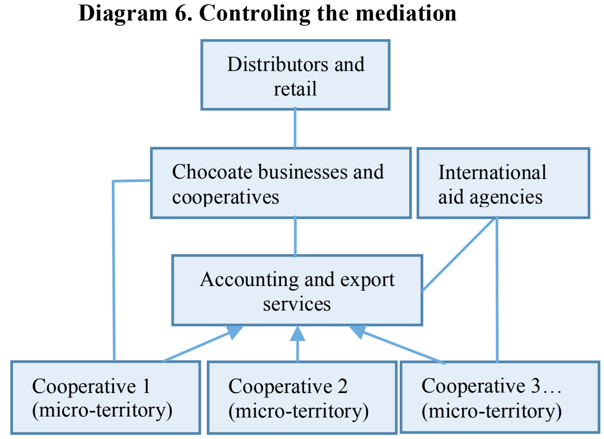
The member families distrust that mediation. They see their leaders as "buyers" and the managers of buyer companies of cacao as the "patrons"- in fact a new source for swelling mediation with buyers comes from the cooperatives. They understand that the external actors give in to the business side legitimizing the privatization of the cooperative. Impotently they see how the new elites learned to divide the members based on projects (donations) and loans in favor of some and excluding those who raise questions. They analyze their words; "dedicate yourself to one crop", "produce more volume", "plant varieties with high productivity", "be loyal to your cooperative", "we are the ones who can solve your problems". History shows them what these words really are: mono-cropping, no family participation in production and obedience to the market. So the member families, appearing to submit, resist: one part of their cacao they sell to other buyers, they reject the grafted cacao, they refuse posts in the cooperatives, and they pass off conventional cacao as organic or certified cacao, they allow the cooperative to fall into crisis to keep it from becoming a tool of the market that ends up taking their land away from them. They prefer to focus on ensuring their food and cultivating social relations in their community, while they postpone their dream of scaling up. Because they cannot scale up alone!

Under these conditions, even though the elites of each phase of the mediation chain capture the income, in the long term, all will lose out. The cooperatives will continue in periodic crises paid for by the price differentials and the members, they will collect volumes smaller than the demand, the FOB prices will not correspond to the status of "fine cacao", the prices paid to the producer will continue to be the most injust of the entire cacao chain of actors. But at the same time, the companies in the long term will not be able to increase their volume in a sustained way, nor will they be able to increase the cacao quality. Because the extensive way has limitations in increasing volume by adding more area, capturing volume through new organizations in new territories. Because in this extensive way livestock is more profitable than cacao for producer families. And because the drought of international aid organizations is getting worse, there are less and less donated projects, which is why the members of the cooperative will have less patience with the unfair prices, because the trickle of donated projects will no longer compensate for those prices.

5. A needed shift in the cacao chain of actors

The context is favorable for a shift. In addition to the limits to historical mediation, the part of the world population with more economic income wants more chocolate, the chocolate industry is demanding more standard and fine cacao, the producer families want to produce more and better cacao along with improving their production systems, which is good also for mitigating climate change. In the long term the importing companies themselves want a sustainable volume of cacao. For the good of all the biggest challenge is the transformation of the mediation, which would imply holistic productivity in the entire chain of actors under conditions of social and environmental equity. How can this be done? See Diagram 6.

Diagram 6. Controling the mediation



Following Diagram 6, the cooperatives reorganize into micro-territories (concentrated communities), make connections with companies and aid agencies, and among several cooperatives working together maintain an office in the municipal capital for operational aspects; accounting and export paperwork. The effectiveness of this shift, we think, will make historical mediation more competitive, offer better prices to the producers, and improve the quality of the cacao in all phases of the chain, which is why all the actors will benefit to the extent that the basis for the entire chain - the producer families - raise themselves up economically, politically and socially. We describe this shift in what follows.

5.1 Construction of connections that would transform the mediation of cacao

Three elements are key: (re)organizing cooperatives into micro-territories, generating communication between communities through the cooperatives, and getting decisions in the mediation to be made with more information and participation. Concerning the first, reorganizing cooperatives into concentrated communities and innovatively emerging in the face of adversities, can overcome the geographical dispersion of the members, and have the physical investments for cacao collection and fermentation, as well as the clone gardens for experimenting with the producers, in the same micro-territory. At the same time, this form of organization would imply making the democratic mechanisms more effective; on the one hand, lowering the costs of organizing assemblies and meetings of the Administrative Council and Oversight Board, because they would be held in the same micro-territory, and no longer in the municipal capital; and on the other hand, it would increase the frequency of those meetings and they would be at more convenient times, and additional contact between the member families would allow for more collaboration, mutual control and trust. It would also help to build more equitable and loyal families, because the current form of organization instead has contributed to the erosion of the family, with many leaders increasing their lovers and liquor consumption in their frequent travels far from their communities. A concrete result of this is that they will produce more volume of standard cacao and cacao with its quality differentiated by the relatively homogeneous soil and climate conditions of each micro-territory, a quality that in the long term might obtain a brand of origin for high value niche markets.

Concerning the second key element, the communities would have in the cooperative a means they could leverage for scaling up. The processing activities, for example, would generate employment. The community would expand into diverse social and economic activities (e.g. sale of prepared food and lodging for visitors to the cooperative from outside the community). More local cash will flow at the local level. If several cooperatives reorganize in the same way in a municipality, they could share an office with staff responsible for the accounting and export services (payment of taxes, meeting custom requirements, cacao certification). Given their differentiated product, the sharing of practices and thinking among the communities through their cooperatives could be multiplied under a "cooperative to cooperative" spirit, and with that their agro-forestry and livestock-foresty systems, and the care of their natural resources would improve. The visits are important: "I met a woman who sold homecooked food in Honduras, she supplied herself with a very diversified small area; that story I made my own" (S.L. Tórrez, expresident of a cooperative, Nicaragua).

And concerning the third element, the buyers and aid agencies would relate to the cooperatives located in the micro-territories. There would not be visits from a city to a municipal capital, but from a city to the countryside. This relative decentralization of the relationships would allow the aid agencies to ALSO talk with the members about their situation, and then with the board members and administrative staff, which would contribute to more information and to the fact that the prices of cacao be agreed upon, calling into question the "sacred" nature of the decisions of "the highest person" in the mediation. The cacao importer and the producer (member) can give one another the percentage of the drop or rise in the price of the buyer to the cooperative, and the coop in turn to the producers, which in itself can cause positive changes in the actors of the cacao chain. In addition this process would imply that the local buyer would cede his place to the cooperative in the micro-territory, like the fact that the "manager/president" (municipal buyer) would cede his place to the cooperative functioning through its bodies.

Consequently, a cacao growing municipality would offer 3 to 4 qualities of differentiated cacao, one quality per cooperative in a certain human ecology (micro-territory). This would mean an increase in the number of members and volume of cacao, which in turn speaks of an improvement in the agro-forestry systems, which is good also for mitigating climate change.

5.2 Construction of glocal communities with accompaniment

The reorganization of cooperatives and the transformation of mediation require that buyers with a greater commitment to social justice step up their efforts so that cacao be differentiated in terms of quality, the associative side of the cooperatives and the movement nature of fair trade be recovered, and this process have systematic accompaniment in order to discern new pathways. Concerning the former, the idea of reorganizing a cooperative in micro-territories is due to the fact that differentiated quality necesitates that small producers families get organized in order to standardize its handling; this is possible in a group, because the more differentiated a product is, the more small producers families need to organize (Mendoza 2017a). This is possible with the support of buyers interested in cacao with differentiated quality coming from specific ecologies, FT certfiers that monitor the interaction of the associative and the business sides of the cooperative, aid organizations that base their work on specific research on those micro-territories, and State institutions that ensure that cooperative law is enforced.

When the business and associative sides of the cooperative interact, the cooperative has a high probability of being successful (Mendoza 2017a); and when the movement character and institutionalized fair trade processes interact, trade can be a source of hope for all the actors in the chain, particularly for the producer families (Mendoza 2017b). That interaction requires the associative side of the cooperative to really function formally, formal in terms of the regularity of meetings, and real in the sense that the decisions of the cooperative are made in their respective bodies, what we call "the cooperative holy trinity" (general assembly, administrative council and oversight board). For the interaction between the movement/institutionality of FT, we need to recover the movement nature of FT, which precisely consists in connecting with the associative side of cooperatives, the human side of the member families, which is the democratic side of the chain of organizations. It is that side which, based on their networks and learnings, makes the production and processing of cacao possible.

This interaction process requires lasting alliances and timely accompaniment. Alliances: the cooperative is a resource of the communities, which is why an alliance between the members and the population of the community should be cultivated; the entire mediation network needs to deepen its direct relationships in such a way that in each phase the interaction between business-association and institutionality-movement is cultivated.

Finally, the role of accompaniment on the part of some external organization is necessary. That counterpart should have the capacity to combine research, training and facilitation to provoke reflection. Its tasks include ensuring the aforementioned dual interaction (in the cooperative and in FT), the dual alliance (cooperative-community and movement-institutionality) and forming a team in the territories on the basis of young graduates from universities and leaders so that it be they who would accompany the proper processes in the long term.

Conclusions

There is demand to increase the production of cacao by 30% by 2020. This means that small producer families, who produce 90% of world cacao, need to increase their production. In this article we show that

that is not going to happen, and that the crisis that the chocolate industry talks about is truly a crisis, because what needs to die is not dying, and what needs to be born is not happening.

Mediation is the big obstacle. That institution is saying that more and better cacao is going to be produced by intensifying mediation. Correspondingly, the extensive way is a logic that inspires different actors, in the production of cacao ("more area for more cacao") and the actions of cacao buyer companies ("getting volume from new organizations on the agricultural frontier"), aid organizations ("more training without doing research") and State institutions ("more foreign investment, more jobs"). In this article we show that that logic constitutes a paradox, that with those practices all the actors in the chain, including countries, earn less; and there are no conditions for cacao to continue increasing in volume in the next 10 years. Because the extensive way has structural limitations, there is nowhere more to go, families are beginning to leave the countryside and migrate, international aid is now at a minimum, and uncertainty about the future is worse. Because family agriculture is not mono-cropping in nature, nor does it only bet on financial accumulation. Because improvement in prices for the countries of Central America that are part of the 23 countries in the ICCO list is not promising; planting connections is not like planting cacao whose harvest comes in 3 and even 2 years, connections are harvested over decades and on the basis of intensive work; it is not just a matter of pursuing capital, but above all, social relationships under democratic mechanisms.

The response to this crisis and its causes, on the part of the companies, aid agencies and governments has been a logic of "more mediation to get out of the crisis". That consists in getting countries on the ICCO list to access higher prices, increase production of cacao through increasing area, betting on high productivity technologies and attracting investment from large enteprises, and committing to quality cacao by organizing cooperatives and associations from outside, concentrating cacao processing, centralizing decisions, and imposing a logic of making more and more money. As a consequence of those policies and strategies, the crisis of cacao persists and "the sea is not opening up."

Without a good diagnosis, it will be difficult to see good solutions. This is what those policies and strategies have needed. In this piece we understand that mediation is a "social jukebox" where any policy and good intentions produce results that are the opposite of their objectives: looking for more and better cacao, wanting to improve the lives of the producer families, importing companies do not meet their demands and there is no substantial increase in cacao areas nor productivity; the cooperatives that produced it live in cyclical crises, so they support new cooperatives that also fall into crises…

This situation is not going to change as long as they continue functioning under the centuries old institution of mediation, whether you call it traditional, private or cooperative mediation. The key is in organized family agriculture (in cooperatives or associations) around differentiated cacao in agro-forestry systems connected to historical processes of indigenous-peasant resistance. Under this framework, we think that a transformed mediation could free up energy from all the actors of the cacao chain, and would allow everyone to win. Correspondingly, we propose transforming the institution of mediation, reorganizing the cooperatives into micro-territories where physical investments and decisions are decentralized around the production of differentiated quality cacao, that this dynamic be matched by the chain of cacao actors, FT and international aid agencies, and that there be accompaniment by some institution committed to social justice, to making the associative-business interaction in the cooperatives, and the movement-institutionality in FT possible, combining research, training and facilitation to provoke reflection. If this proposal is made viable, we think that that 30% increase in cacao can be met, and climate change mitigated, and that the peasant communities can scale up socially, economically and politically.

If communities mobilize and grow, peasant families have no reason to postpone their intent to scale up, and broader and increasingly more flexible mediation will be able to accumulate more in a more stable way, in a more socially and environmentally equitable way, and in way in which these improvements reach all the actors in the chain, including the women and children of the producer families. Because cacao markets matter to the extent that human societies matter. Then Eve will have chocolate for a good bit of time, and "the sea will open up" so that the spirit of the community of Izalco can cross through it and remind us that chocolate comes from them.

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