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ABSTRACT

Organic agriculture might be a feasible solution to many of Central America's agriculture problems: excessive use of pesticides, health disorders, migration to cities and the essential issue of insufficient incomes for rural producers. Most organic farmers argue ideological motives for their techniques. While these are very important indeed, the economic factor is important as well: The concept of sustainability includes a positive income. The export market is essential for the success of organic agriculture as a broad program. Many producers strive to reach international markets to take advantage of the division of labor, as in the case conventional food products. In this article strengths and weaknesses of this sector are examined, as a preview of the elements that should be included in an exporting strategy.

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CONSIDERATIONS ON THE INTERNATIONAL MARKETING OF ORGANIC PRODUCTS IN CENTRAL AMERICA SOME IDEAS ON COSTA RICA

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1. Introduction

Organic agriculture might be a feasible solution to many of Central America's agriculture problems: excessive use of pesticides, health disorders, migration to cities and the essential issue of insufficient incomes for rural producers. Most organic farmers argue ideological motives for their techniques. While these are very important indeed, the economic factor is important as well: The concept of sustainability includes a positive income. The export market is essential for the success of organic agriculture as a broad program. Many producers strive to reach international markets to take advantage of the division of labor, as in the case conventional food products. Therefore a general view of the organic international market and the main obstacles for Central American farmers is necessary.

Although we use a Central American scope for our views, we base our opinions on the Costa Rican situation after interviewing producers and a survey of existing research. Several conclusions are reached at the end of this paper under the form of policy proposals, but there is still a long way to go before thinking in organic agriculture as a viable strategy for a broad segment of the rural population.

2. Theoretical considerations

2.1 General Overview

Agricultural policy works, to a larger extent, through influencing the financial position of farmers (Michelsen *et al* 1999). This is obviously a truthful statement, but the main point is how are policymakers thinking on influencing farmers? When it comes to organic products there are two variables and four alternatives to consider.

One variable is the justification for the activity. There are organic growers who favor a "philosophical" motivation, which can have different origins (disdain for agrochemicals stemming from individual ailments, historical farming without fertilizers, closeness to the earth or emulation of traditional farming methods), while other farmers might foresee

¹ The authors belong to the International Center on Economic Policy for Sustainable Development at Costa Rica (CINPE): inca00@racsa.co.cr This study was conducted for UNCTAD but the opinions expressed in this paper are those of the authors and do not necessarily reflect the views of UNCTAD. We recognize the support received by Virginia Cajiao and Rafael Sánchez, who integrate our broader working group. We are also grateful to Manuel Amador, the board of APROCAM, Jack Perella and Virginia Umaña for useful conversations and exchanges.

global demand leaning towards organic products and want to start now. These are referred to as “market oriented”. We are aware that such dichotomy is oversimplified. All “philosophical” growers concur in the importance of profit, but present their ideology as the main cause of their preference.

The second dichotomy is found in production techniques. In our interviews with Costa Rican farmers we found, mainly in small farms, a tendency towards the preservation of biodiversity as part of the technological package. This implies associated crops and conservation of the original productive environment. Therefore, we have called this the “biodiversity” sector. A second group, not too prominent in Costa Rica, is the self-named “monoculture”. They generally employ larger areas with few associated crops and high doses of natural fertilizers, in some cases imported². We illustrate our view with these two variables, “motivation” and “technological”, of the combinations that define the farmers (fig. 1)

Figure 1
Motivation and technology for organic agriculture

		Motivation	
		Philosophy	Market
Technology	Biodiversity	I	II
Technology	Monoculture	III	IV

Quadrant I is the most prominent in Costa Rica, where in most cases we find small farmers with an unclear market objective. They do not ignore it, but their market strategy is underdeveloped. The cases of market oriented monoculture are probably no more than two or three.

This is an important issue, because many times organic farmers in Latin American countries are supported by NGOs without consideration of markets or production costs. A pure theoretician in economics would argue that markets are implicitly considered when someone is prepared to contribute to other people’s income (even in different countries) to produce with organic techniques. It is a matter of taste (even though ideological) and demand. The real problem here is that the “outside world market” continues to be unknown and technical improvements are secondary issues because the continuity of the programs are a function of external funding with changing priorities. Therefore investments by the farmers are kept at a minimum.

Under these conditions it is a contradiction by itself to speak about *sustainable* agriculture concluding that the path to sustainability goes through organic techniques. This is one side of the issue. However, from the point of view of sustainability of the *organic* production

² We can cite as examples of organic monoculture” in Latin America the banana plantations in the Dominican Republic or some farms in Argentina.

process it is important for the farmers to extract profits through the arbitration of markets. These may concede pricing-premiums or may, thorough improved techniques, increase the profits extracted from each acre planted (Cussianovich and Gitli 1997). Profits make widespread organic production feasible, while competition allows for higher efficiency in the allocation of resources, mainly implementing less expensive agricultural processes.

Therefore, the main obstacles to remove are the lack of transparent markets for final products. The development of the organic market is essentially different from other markets. It began with the growth of supply and demand for ideological considerations starting from fringe producers and consumers. There wasn't here a transnational corporation conducting a market study, deciding what and how to produce and investing millions of dollars in publicity, packaging, distribution and demonstrations to introduce the new product.

This lack of broader and widely known channels of distribution, associated with the complexity of certification and labeling, is an important characteristic of the organic market. The amount of information actually included in product labels is confusing. For an analogy think for example of the concepts of "light", "fat free", "cholesterol free" and "sugar free". Most of the times it is impossible to sort out the real significance of these labels without the support of a specialist.

The main issues to set forth in the market of organic products are:

1.- *Product specifications*. Obviously we are considering organic products only, but this is not enough. Is a brand name required (*organic cola*)?. Is it necessary to combine the organic feature gourmet with market characteristics (this *is* the case in the coffee market). What kind of certification is necessary?

On the other hand, it is important to consider the whole set of linkages in the agro-industrial organic sector at the same time that it is important to eliminate pesticides and other contaminating agro-chemicals in the first stage of production. Techniques for the second and other value-added processes must also take into account the need to use fewer and not fully tested additives, which may alter the durability and quality of final products.

Quality standards which are sensible to the consumers have been historically developed for conventional agricultural goods (taste, smell, color and size). Hence, when organic products appear close to conventional ones we have a marketing problem, which must be solved through promotion and adequate display of the products. Generally speaking, there are no problems with taste and smell, but with color and size organic goods give an image of inferior quality (Michelsen *et al* 1999:48).

For this reason, it is convenient as part of a package of production promotion activities to induce research in how to improve the physical appearance of the products as well as in additional processes, in order to increase the value of organic products.

2.- *How to reach the market.* The final destination of the products is distanced from the producer by a diverse and complex set of events. Generally speaking, a single farm's output is small in relation cost-breaking point for gathering the products, handling them, packing and putting them into appropriate containers. The product, first, has to reach the foreign port of entry in the case of exports. From there, the distributors' problem is widely known. Distributors prefer not to sell small quantities because of the efforts involved, unless there is a wide consolidated chain for organic products. This means that from the point of view of foreign markets, two characteristics should be outstanding for the choice of a final destination: a) it should be a country with a high degree of development of the market of organic products³ and b) it will be better for the exporting country if the country of destination has a tradition of being a net importer of food in general, or at least in the same range of conventional products. In this case the probability of non-tariff measures against imports is reduced⁴.

A great number of goods coming from agriculture are under exceptional rules negotiated in the Agreement on Agriculture in the World Trade Organization (WTO). Others have a strong tradition of non-tariff barriers. Therefore it is very important to be cautious when promoting exports of sensitive foodstuff products, even though organic. Examples of these sensitive goods are dairy, poultry and cereals. For Central American countries the tropical products mix is the best⁵. Consumers are used to these products coming from these countries. Therefore they will be prone to accept new varieties under the form of organic food coming from these places. Of course, there is always the possibility of negotiating cooperation agreements to assure that organic products will reach the market in spite of problems with their conventional alternatives. This has been suggested for the banana imports in the E.U.: to separate organic banana from the conventional quota system.

Two important problems associated with how to reach the market are: a) the low durability of some organic products, especially vegetables and b) the necessity to supply the markets all year long and not sporadically. The first is an issue which should command additional research, because some organic producers argue that the durability of their products is larger than conventional ones. This may depend on the kind of food-products involved and the particular quality, but it also may depend on the treatment the products receive at the food stores. In some cases supermarkets allocate less space to organic products and they stuff them together, thus shortening their span of good presentation.

3.- *Promotion.* When we deal with commodities in general, the promotion issue is almost non-existent. If we are exporting cantaloupes the only problem is the quality issue. In the case where the product has a special feature which has to be distinguished by the customer, the need for investment in promotion is considerably large. Display areas are a relatively scarce good and store owners are reluctant to open special counters for niche-products

³ Therefore it is possible that organic products have relatively developed channels of distribution, maybe in supermarkets.

⁴ This is the case of organic tropical fruits, juices and coffee.

⁵ Central American countries are major suppliers for bananas, pineapples and coffee to the U.S. market.

unless the price differential is high and customers know the product and where to look for it.

Also, there is the issue of the free rider. When the organic produce is a commodity which cannot be differentiated from a similar certified good (say an organic melon), publicity expenses cannot be entirely recovered because other producers may mount the wave without investing a dime.

In some markets, the central retailing groups are very active in promoting and distributing organic foods, since they view this products as important image builders.

On the other hand, it is important to consider that although “fair trade”, which is based on recognizing social conditions for production with a premium price, is a completely different thing from organic markets, there is a strong relationship often neglected: At the International Federation of Organic Agriculture Movements (IFOAM) meeting in 1992 it was brought upon consideration that organic markets may only reproduce the old exporting agriculture without bringing benefits to poor or small farmers (van Bemmelen 1995). Hence, it makes sense to think of a possible alternative route of certification and promotion of mixed organic *and* fair trade features, which is being worked out by one institution in Costa Rica⁶.

Last, but not least, there is one argument which has not been explored so far. U.S. consumers don't know that as a general rule imported products are in most cases healthier than the American counterparts. This is because import controls are thorough and efficient, which is not the case with domestic production⁷.

4.- *Price*. In most cases there is little information concerning the producers' prices and in many cases research is conducted knowing only the price in the supermarket. There is scant information to take decisions. The concept of market price is ambiguous. The only relevant price for the producer is “my broker's price”. In many cases the costs to reach the market are very high and may be reduced through cooperative action of the producers, taking advantage of market prices at a premium for organic products. The general warning is not to compare farmer and retail prices. Even if we compare conventional retail prices against organic, for an industrial country, this is a risky approach, because market conditions may be quite different: Competition versus monopoly, high marketing costs, non-competitive practices at the border or among companies. In conventional food products, there are wide differences between farm and retail prices. Prices may increase fourfold from the farm to the consumer. We don't have equivalent measures for organic products but according to one source in the U.S. the typical premium for producers is 20 percent, and the consumers premium price is 50-100 percent (cited by Rosen and Larsen 2000).

⁶ Personal communication from Manuel Amador (CEDECO).

⁷ Rosen and Larson (2000) quote a study by the U.S. publication *Consumer Report* which gave better results for 67 percent of the import products investigated against the same American goods.

Although great price differentials are cited in Central American countries as occurring in most industrial countries, they might be lower than generally thought. For example, premium prices close to 100 percent (or higher) were detected in the case of coffee in the import market⁸. But from different sources we consider that on average, the price premiums in Europe for (European) producers of vegetables are in the range of 30-40 percent, for cereals around 50 percent, potatoes 50 percent, milk products 10-25 percent, fruits 20-50 percent, poultry 90 percent and oilseeds 90 percent (Michelsen *et al* 1999:67, SIDA 1995, Cussianovich and Gitli 1997) There are wide variations among countries and among products within categories. The preference for domestic producers in the markets of destination could be a negative factor in the future⁹.

An important problem in specific markets (for example, the European market) is the high cost of agricultural products *in general*. In some markets the buyer wants small sizes and small quantities. Therefore, it is convenient to be careful with price-premiums because the negative impacts on the demand side could be very great.

2.2 Price Mechanism

Prices of organic products are generally higher than those of similar conventional products for two reasons: a) the mechanism of supply and demand (supply scarcer than demand at prices close to conventional equivalents), b) for the same quantities of products consumers are prepared to pay more, for ideological considerations (which should be carefully studied in the future)¹⁰.

There is some agreement that as supply increases, prices should go down, because of the new realities for partial equilibrium of the markets¹¹. One important point of analysis is in what part of the process are markets positions in relation to long run trends.

As the supply increases it drives prices down; there is also the increase in demand due to the change in cultural patterns toward healthier food, but also due to more or less random occurrences like the “mad cow” disease, that prompted European public, farmers and even the national and Community authorities to promote changes in the production techniques. Indeed here we have supply and demand factors being affected almost simultaneously.

⁸ Other sources indicate that the average premium for coffee is between 20-30 percent (Conejo *et al* 1995, Rosen and Larson 2000).

⁹ These are small details that are insignificant right now, but could become important in the future.

¹⁰ For the time being, organic farmers are considered some sort of heroes who should be compensated by the consumer to induce the increase of their rank and files. As more producers increase the supply this view will undoubtedly tend to disappear.

¹¹ This should not be the case when the cost of organic production is clearly higher than its conventional counterpart.

Therefore we don't know the resulting impact on prices¹². The beef problem in Europe will bring upon an increase in the consumption of fruits and vegetables. Most important: it will bring organic food to gourmet restaurants, which so far was a negligible component of demand for organic products.

Another important issue is the fact that supply responses to changes in demand are of a longer run nature. A two year period is required as a minimum to convert from one technique to the other¹³. Therefore, important demand developments affecting prices in the short run in conventional products are not so strong in these cases. There may be an interesting point which warrants further study and is related to the motives for conversion. We may assume that an organic farmer is long run-motivated, but his production and costs function can move with a different rationale under low or high prices. Under higher conventional prices (which may encompass organic prices as well), if he/she can react rapidly to demand expansion, this reaction may be quicker expanding production with conventional techniques and therefore abandoning organic production. This issue should be investigated on the field.

Another source of complications is the fact that when several certification firms compete, there is a supply and demand for each label. The demand depends, among other things, on the selling capacity of each one: whether it is widely known and respected by consumers and by the distribution channels, or whether the organic standards are all the same, and so on.

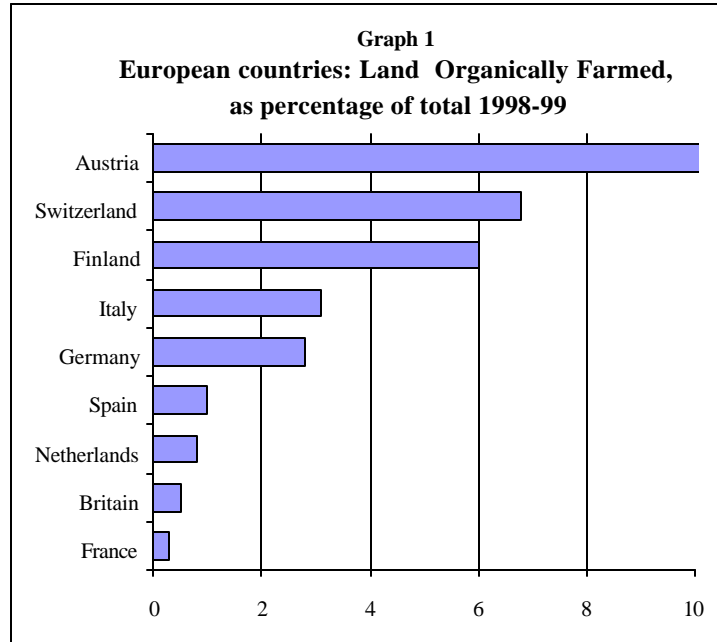
3. How important is the organic market

According to a recent study in 18 European countries taken as a whole, organically grown areas only represented 1.3 percent of total utilizable agricultural area in 1996¹⁴. There is a huge variation among the 18 countries: in 11 of them the share is less than 1 percent, and in Austria was 9 percent. Newer data released by the English publication *The Economist* presented Austria with more than 10 percent of the land organically farmed. (See Graph 1).

¹² By "prices" we mean both prices: organic and conventional, as there are obvious substitution effects.

¹³ The two year period is a formal requirement according to EU regulations. Some certifying agencies in Central American countries require three years.

¹⁴ Foster and Lampkin, cited by Michelsen et al 1999:13.



Source: German Ministry for Consumer Protection, Food and Agriculture; German Association for Organic Farming. *The Economist*. February 3, 2001.

In the U.S. there are different figures according to varying sources. A big part of the so-called organic market is not properly certified. The organic certified market was about 5 billion dollars in the year 2000 (which according to the USDA is similar to the EU), increasing at an annual rate of 25 percent (Rosen and Larson 2000), but the non-certified market may reach five times this volume.

In Costa Rica, according to an inventory made by CEDECO and after some calculations we estimated the agricultural organically farmed, or in transition, certified or not is in the order of 1.8 per cent of total farming land (see Annex).

4. Main issues in export markets

4.1 Production and imports

One important and often neglected issue concerns the import penetration in the agricultural sector for the market being prospected. If the country of destination is a net exporter of agricultural products, or of the product we are planning to sell, there may be access problems if local producers are strong enough to lobby against imports.

For example, we should be very careful if we try to export organic milk to European countries or to the United States. An interesting possibility for Central American countries to explore could be to open special export windows for organic milk, but the deal should be

both ways. It is difficult, though, to imagine all countries in the sub-region would be interested in opening local markets for organic milk.

The U.S. market for fruits and vegetables is not dynamic in statistical terms associated with trade: The market share of imported food products did not grow during the nineties (Rosen and Larson 2000). Therefore, imports grow at the same pace as consumption, but there is an important change in the composition of these imports. Mainly, fresh produce has been steadily gaining market share as opposed to processed food products.

Another important fact with organic producers in the U.S. is that most of them are not full time farmers, or at least not full time organic farmers. A national survey of organic farmers in 1999 found that income from organic farming represents less than half of net family income in 68 percent of organic farmers (Walz 1999, cited by Rosen and Larson 2000). This is a signal that it is not so easy to increase domestic organic production in that market as this activity is not the main source of income for many farmers.

4.2 Certification

In order to trade in organic products, as such, these have to be certified. When trading overseas, there is an added level of complexity due to the fact that in each country or group of countries the certifying company has to be accredited.

About this, “certification guarantees that a determined process, product or service abides by the rules of the certifying agency and by the minimum requirements of the International Federation of Organic Agriculture Movements (IFOAM), or by government authorities” (Solano 2000). However, since organic producers constitute IFOAM, its recommendations are not binding and are valid only as a guideline for the certification process. Ultimately, national regulations oversee the internal certification process, including imports.

Therefore, export promotion efforts are conditioned not only by national certification requirements, but also by the selected foreign market, due to the varying legislations and regulations that rule organic products in different countries.

In this sense, production aimed at multiple markets forces the producer to obtain multiple certifications (through a single company accredited in various countries or through several companies), depending on the selected markets, in order to have his/her products treated as organic in each one of these destinations. This presents additional obstacles in terms of additional costs needed to obtain fairly similar certification processes. Also, different certification requirements might call for modification of production processes in order to comply with variations from one country to another, thus adding to the cost of multiple certifications.

Therefore, certification may be considered a source of costs to producers, which should be transferred to the price of the finished product. This would be one of the reasons behind the price differential between conventional and organic products. Here we find a problem faced by small organic producers or small groups of producers, which is the elevated cost from

certification that could be assigned to each unit. Hence, production and/or export levels become a limiting factor in the certification process. The larger the producer and his output, the lower his cost per unit. This is the general principle, though there might be special considerations for small producers, depending of the certifying agency or foreign cooperation.

Certification in the European Community is determined by regulation 2092/91, operational since January 1993. This general standard, valid throughout the EC, contributes to boost consumer confidence, which makes it a market development tool¹⁵.

In some instances, known brand names are added to certification. Although these products comply with the rules and regulations, they carry their own distinct brand label in order to highlight their products exclusively. This system is known as "commercial labeling".

National certification agencies - while largely private - are governed by their respective Departments of Agriculture but rely on European agreements to set the standards. Only a handful of US companies are accredited by the EU (de Pazzis 1995)

In the US, the average organic certification cost is \$413 (Rosen and Larson 2000). In Costa Rica, the subsidized certification cost is around \$500. However, it is necessary to acknowledge that certification is often also subsidized in the U.S.

The cost of certification is an important issue in Central America. We have found that in many cases, certification is a gray area. Some of the logos are unknown or non-official, which undermines their validity and recognition. In other cases, the importer can complete the certification process in his own country with relative ease.

These cases found in Costa Rica may be due to the rather small quantities involved. It would be advisable, however, to investigate these situations as they may be conducive to future complications, if we assume an expansion of exports.

The certification process requires the producer to gather historical data about his/her use of agrochemicals and his production processes ranging from 2 to 5 years¹⁶ (In the E.U. this

¹⁵ This goes against the dogma "the consumer always knows best" which in practice means that several certifying firms may compete, but each consumer has a rational preference. In the end, the lack of appropriate standards undermine the validity of certifications, which has a negative impact in the consumers' perception of the products.

¹⁶ Some of the basic inspection-certification processes are:

- a) The history for the last 3-5 year of agrochemical and fertilizer use
- b) roads and neighbors
- c) Use of logs
- d) Soil and fertilizer management
- e) Crop management
- f) Water management
- g) PLAGUES and disease management
- g) weed management
- h) Harvest and post-harvest management

period must be at least 2 years, 5 years in the U.S. and 3 years in Costa Rica). This period is considered to be the transition stage in which, according to scientific findings, the soil is drained of all non-organic chemicals from past use.

Certification in the U.S.

In the US, certification rules and regulations were established by legislation encompassing organic production, which had its newest version in early 2001. The USDA is in charge of accreditation for certifying companies and agencies. Additionally, the USDA is in charge of verification of imported organic products and their compliance with the requirements of the National Organic Program.

With only three exceptions, all organic products have to be certified. These are:

- a) Products with annual sales under \$5,000. It is recommended that these producers sign a statement indicating they abide by national regulations.
- b) Retailers not processing the goods.
- c) Products with less than 70 percent of organic content by weight. In this case there is a requirement to include this information in the label.

The USDA is able to accredit a foreign certification company or agency, if requested by a foreign government, as long as there is a reciprocity agreement between the two governments.

Even though all new legislation is not devoid of loopholes, some caution has to be exercised. In the state of California, for example, a producer can be registered in the state as an organic producer following a fairly simple process that does not actually certify him. This is a common source of misinterpretation in the U.S.

Certification in Costa Rica

The process of certification in Costa Rica is ruled by the Organic Agriculture Regulation (D.E. No. 26067-MAG), October 2000. It is clearly stated in this legislation that certifying bodies have to be accredited by the Ministry of Agriculture (Article 75, Organic Agriculture Regulation).

In Costa Rica there are three accredited certifying agencies which are: ECOLOGICA, AIMCOPOP and BCS OKO-GARANTIE, the last one being German. Under the new conditions set forth by the Costa Rican legislature, a non-accredited company cannot certify local products¹⁷. We're faced, then, by the following question: What is the motivation for

-
- i) Animal management
 - j) Processing management

(CEDECO 2000).

¹⁷ Regarding this, ECOLÓGICA has stated that it has strategic alliances with US companies such as Oregon TILTH Certified Organic-USA (OTCO), WHS and WSDA in Washington State and ECOCERT in Europe. Data gathering is conducted locally and the foreign certification agency rules over the certification of the

foreign certification companies to undergo the process of accreditation in Costa Rica, if our market is relatively small?

In Box 1, we present a brief summary of costs associated with certification in Costa Rica. In the case of ECOLOGICA, the HIVOS pays between 50 and 70 percent of the net cost of certification (Delgado 2000). Additionally, some certification companies charge a percentage of total sales of the certified product. In the case of ECOLOGICA, this commission is 0.5 percent.

If we consider a small organic coffee farm as an example, we may find that the cost of certification amounts to 5 percent of total revenue when it is not subsidized, and up to 2.5 percent of total revenue when subsidized by HIVOS. We have even found cases in which the cost of certification raises to 10 percent of the exports value.

As for the size of the certified companies, as mentioned above, ECOLOGICA stated that *“99.35 percent of certified producers are small and the rest are medium sized, where each producer administers an average of 2.5 hectares approximately”* (Delgado 2000).

product (Jimenez 1999). Also, local producers have acknowledged to being certified by foreign companies such as BIOLATINA, although under the new law this is not possible.

Box 1
Summary of certification costs in Costa Rica

Careful analysis of certification costs in Costa Rica uncovers mixed results. For example, the National Organic Agriculture Program, which is the official agency in charge of this sector, presents the following certification costs for ECOLOGICA:

Estimated cost of certification for ECOLOGICA	
<i>Number of producers</i>	Estimated cost per producer (US\$)
500-2000	4.7
100-500	6.9
25-100	40.6
5-25	78.1
2-5	187.5
1	375
Source: National Organic Agriculture Program.	
Note: Data estimated using the exchange rate as of march 2001	

However, CEDECO (2000) presents a cost estimate significantly more elevated and with a different structure:

- Annual membership ranging from US\$250 to US\$1,500, depending on the certifying agency.
- Inspection and certification costs between US\$2,000 and US\$7,000
- Commission for the use of the logo from 0.5% to 1.0% of sales

From the certification agencies point of view, ECOLOGICA through Mr. Geovanny Delgado stated the following cost of certification:

“...three items are charged: first, the inspection job which is charged at 85 to 125 dollars a day, since we charge according to the producer’s expected investment. Second, the annual follow-up cost which amounts to 175 dollars and third, commission over sales, which the company uses to grow in order to give a better service”. (Delgado 2000)

On the other hand, Bernal Gutiérrez from BCS OXO-GARANTIE said:

“Our prices are around 450 dollars a day plus expenses such as food and lodging, etc. According to testimony from clients in El Salvador and Guatemala, they have chosen to stay with us after hiring other companies, because the overall cost was lower considering the quality as opposed to the rest”. (Gutiérrez 2000).

With this in mind, a clear conclusion in the case of Costa Rica is that the lack of competition has slowed the formation of market in the certification process. Thus, there is no certainty regarding the certification costs. Any which way, the unsubsidized cost per farm seems to be at UD\$1,000 plus 2.5 to 5 percent of sales.

4.3 Are there profits for organic producers?

There is an ongoing discussion on the subject. According to some publications, prices are higher because it “becomes more expensive since the yield is lower” in organic agriculture (SIDA 1995, Nieberg and Offerman 1999, Michelsen *et al* 1999). In plain words, conventional wisdom establishes that leaving aside agrochemical inputs there is a decrease in costs, but yields are lower, and they may be the dominant factor. Therefore profits may be lower without price-premiums. The same publications states that the solution is to increase their volumes. But this is not as generalized as it seems to be. One of this authors showed that for three products in Costa Rica the opposite happens, comparing organic against conventional (broccoli, cassava and hearts of palm). The results seems contradictory but in our cases the author found that costs per hectare are higher in organic production, because the increase in workforce expenses is greater that the decrease in agrochemicals. On the other hand, agricultural yields –in opposition to some pieces of conventional wisdom- are higher because these techniques are very intensive in the use of land. The final result being that the economic impact of higher yields dominate over greater costs, and profits per hectare are therefore higher (Cussianovich and Gitli 1997). The interesting case is that as most products were directed to domestic markets, there were not price-premium. We should be very careful not to generalize without sufficient information, but a provisional conclusion to be drawn is that organic production should be accompanied of good technical advice. In other terms, the productivity side of the equation is as important as the price-premium in this stage. In the future, we will rely mainly on productivity.

4.4 The information problem

In most cases evidence of success or failure is anecdotic. Prices are variables that in many cases answer to specific contacts or market niches. Nowadays there is more information than five years ago, but it is still fragmented¹⁸. In conventional products a producer may pass along information concerning an “honest broker” to anyone, because they are commodities with known market prices, the differences being according to quality, steady supply, and mutual trust. In the case of organic food, producers are afraid of any increase in the supply that may alter market prices because they tend to see the buyer as a personal contact and part of a market whose size is unknown. Therefore, they don’t want to encourage new entrants.

National export promotion organizations in Central America were not used to consider organic products of such importance to collect specialized information or to conduct or commission market studies. This situation is slowly changing, but they are not in condition

¹⁸ This is true for every organic market, even for local producers. In exporting countries the problem gets worse.

to give specific advice to exporters. In the case of Costa Rica, the Ministry of Agriculture has a special program in support of organic farmers, but there is still little information available because of the lack of resources¹⁹. This shortage of information forces producers to incur in extra-costs, which affect adversely their profits.

We also detected the information gap through journals. In Costa Rica there is a serious problem with the lack of technical information. Sometimes journals seem to be more an environmental propaganda vehicle than dedicated to local producers. There is the need to share information among farmers, even in very small details of the day to day for the combat of plagues, the improvement of transportation, the state of the markets and so on.

5. Policies in favor of organic production

The rationale for the promotion of organic products is threefold: on the one hand it may be part of a national effort to reduce the per capita weight of pesticides and the damage –to persons and environment- attributed to it²⁰. On the other hand the organic goods are almost entirely free of damaging substances and therefore healthier for human consumption.

But besides these two important reasons there is a third one, which is quite relevant for development arguments: organic production is a labor intensive industry with higher incomes and this is a strong justification for its promotion.

Organic production represents the possibility of a substantial improvement for consumers' health and the long run yields of the soil. Therefore there are strong positive externalities in the promotion of such activity to give the step from an immature to a mature market.

An important bottleneck for domestic as well as for export markets is the small size of total supply²¹. This has been pointed out even for European countries (Michelsen 1999:106). Therefore, deliberate efforts to promote production will have a strong externality in favor of

¹⁹ Procomer, the Costa Rican organism for export promotion has recently designed a staff member to follow up these matters. The Organic Agriculture National Program in Costa Rica (PNAO) has a well organized work program covering 1.- Information and promotion 2.- Training, Research and Extension 3.- Production, transformation and commercialization 4.- Technical and normative framework 5.- Institutional framework. The PNAO has a two-three person staff, but is very conscious of this restriction and has been working on coordinating the efforts of several institutions (PNAO 2000).

²⁰ Costa Rica is the highest per capita user of agrochemicals in Latin America. It is also one of the highest affected by gastric cancer, although a direct relationship between the two occurrences has not been formally established. It is worthwhile to notice that in some European countries (Germany and Denmark) it is no legal to advertise organic food with the food safety argument. This would imply that any other conventional products are health detrimental.

²¹ By size we also mean stability of the supply, through “high numbers”. Scattered farmers have a transportation problem, because of the need to separate their products from conventional ones.

a profitable activity for the micro and the macro level, and by profitable in this case we also mean additional welfare coming from healthier environment and consumption.

As was pointed out along the paper, further degree of processing, for example marmalades, juices, canning, etc. is negatively affected by a limited supply. Here we have another externality: more producers may enable the industrialization of the products, and therefore they may help stabilize the markets and reach far away places.

The problem with the design of promotion instruments is, how to induce efficiency all through the life cycle of the product. For example, in Spain and Italy, there is excess supply of organic products, which goes hand in hand with relatively high prices (Michelsen et al 1999:15). The explanation seems to be on the mix of direct subsidies for certified products and high intermediation costs in the organic segment of the market. Therefore it is easier to channel the products through conventional lines and collect the subsidies.

In several European countries systems were designed to promote, through state intervention, the development of organic products. Sometimes this may be done through the direct financing of certified producers, with the argument that to induce the opening of private marketing facilities you have to start with the supply. In other cases the state organized and paid for the certification infrastructures; in other situations the payment of subsidies was for conversion to the new techniques. From 1992 this is regulated through EC Reg. 2078/92, although this new general regulation in support of environmentally friendly farming, substituted other previous national programs.

A form of market failure arises when one starts thinking of diverse products with better market possibilities but the agro-industrial chain is incomplete or lacks an important link. For example, it is known that important problems with fruits and vegetables are the transportation requirements and other difficulties associated with durability. But industrialized agricultural products may overcome these problems in the case of organic fruit beverages. Pure organic juices of tropical fruits are rare. The solution could be in government supported associated efforts between juice and organic producers.

As already seen in item 4.4 information is a very serious problem, which is being addressed by the producers' organizations and the Ministry of Agriculture. But there is still scant or nil information on prices, buyers, size of the market, elasticities, qualities, and so on. The history of export promotion efforts in conventional non-traditional food products has a lot of successes, which permitted the increase in general exports, but it has a lot of failures stories as well. In the case of the conventional non-traditional products offensive of the early eighties, information was available through international cooperation agencies (mainly USAID). In the current situation there is a lot more knowledge than in those times and this is a good starting point; on the other hand the lack of knowledge should be strongly addressed through research and the establishment of a bank of information.

Written information should be spread at least in two levels. A good scientific regional journal, and an easier to read journal dedicated to producers. There are complementary

forms for the diffusion of information: through local newspapers and/or regional offices of the ministries of Agriculture²².

Good quality and readily available information runs parallel to the development of research and gathering of data. Also, the participation of universities and research organizations through government contracts should be encouraged.

As indicated before, the certification puzzle and the cost problem should be solved through a joint program between international cooperation and the Central American governments. Negotiation of reciprocity is very important for the outcome of the whole sector, as national certification should be less expensive.

The issue of *incentives* is important at the farm level. Without going deeper in this article, we should add that economic incentives may be based on market prices (domestic and international). But there is a number of investments which are not close to the possibilities of farmers. In the first place, risks during the transition period are quite serious; in second place, the issue of certification may represent a high economic barrier when the producer is only beginning (it may also become a non-tariff barrier but for now we are leaving this aside); in the third place for many farmers going into organic production exports are something new. It could be argued that this is an environmental issue and therefore there is not a subsidy problem that could affect foreign markets²³.

One last issue applies to all the agriculture in Central America, both organic and conventional: Physical infrastructure for production and development of exports is very important. Many producers interviewed by the authors complained of the lack of adequate roads connecting their lands to main highways. They pointed out that, as small producers, their properties were often not conveniently located near main transportation routes, and therefore have to traverse great distances through poorly maintained roads, which increases the costs of production. Since this is a generalized problem for conventional as well as organic farmers, national priorities and policies aimed at the development of rural areas should be reassessed.

Adding up, there is a situation potentially favorable to organic products, which we consider may be used for the advantage of Central American farmers, increasing efforts towards regional markets, but it is also necessary to prepare the basis to enter the world markets.

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²² While the use of the Internet is a good complement, most farmers are not in condition of having a good access to it. Therefore, it is preferable to organize the distribution of information through sub-regional local existing networks.

²³ That is, the Agreement on Subsidies accepts the possibility of subsidies for the transition to cleaner technologies.

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ANNEX

ORGANIC PRODUCTION IN COSTA RICA				
AGRICULTURAL ACTIVITIES	AREA (HECTARES)	PERSONS DIRECTLY INVOLVED	PRODUCTION VOLUME (Tons / year)	DESTINATION
Banana ¹	2773	1792	817.04	Intermediary and export
Frijol tapado (beans)	2294	445	1013	Self consumption and intermediary
Cacao	1489.5	317	613.5	Intermediary and export
Coffee ²	891	277	31783	Agro-industry and export
Mulberry	640	270	964	Intermediary and export
Rice	225.8	185	191.7	Self consumption and intermediary
Sugarcane	195.4	68	15692	Intermediary and export
Cashews	193	1	61.3	Intermediary
Mango	55	70	1297	Intermediary and export
Other organic products	224.57	223	n.d.	-
Vegetables ³				-
Mustard, sugar beet and lettuce	23	24	15800	Intermediary and final sale
Small onion, beet, spinach, parsley, coriander and onion			34325	
Broccoli, carrot and cabbage			5.5	
Agricultural production sub total	9004.2	3672	-	
Rural agricultural industry				
Organic fertilizer		121	16306	Final sale
Coffee processing		n.a.	1500	Direct export
Granulated sugar		68	1397.8	Intermediary
Jams		95	110	Intermediary
Honey		51	53	Intermediary
Cheese ⁴		130	33	Final sale and intermediary
Achiote paste		n.a.	30	Intermediary
Rural agricultural industry Sub-total		465	-	-
Total	9004.2	4137	-	-
Percentage of total cultivated land being farmed with organic products	1.8	-	-	-

Notes:^{1/} Tons per fortnight^{2/} Fanegas per year^{3/} In the case of vegetables, production volumes are: Units per web (Mustard, sugar beet and lettuce), rolls per week (Small onion, beet, spinach, parsley, coriander and onion) and tons per week (broccoli, carrot and cabbage).^{4/} Kilograms per day

Source: CEDECO, 2000.