CHAPTER 10. POTATO MARKETING EACs

In this chapter I present three case studies of EACs engaged in marketing their members' potato crops, one in Region X and two in Region IX. These case studies allow me to explore the theory presented in Chapter 2 that economic collective action only makes sense if the participants are being hurt or constrained by market failures. The wholesale potato market in Chile is considered to come closest to the concept of a 'perfectly competitive market'. Thus, I would expect to see that EACs involved in wholesale potato marketing would fail to deliver any significant economic benefits to their members, who would end up deserting their organization.

10.1 The context

Vargas and Foster (2000) studied the markets of the most important crop and animal products in Chile, and concluded that *"of the 15 products considered, only the market for potatoes corresponds to the textbook model characterized by many market participants whose activities are determined by spot prices generated by open markets."* The bulk of potato production is concentrated in a few distinct areas of the country; thus, competition is intense and there is ample information at harvest time about market and price conditions.

The 1997 Agricultural Census identified over 90,000 potato producers in Chile, the vast majority of them small farmers with an average crop size of less than 1 ha. Although there is no information on the number of buyers, it certainly runs into the hundreds. Industrial contracts with potato growers are still not very important (7% to 12% of total production), and supermarket chains command less than 10% to 15% of the total retail sales of potatoes.

A typical small farmer sells his or her production on-farm to a middleman, who only needs to collect the production from one or two hectares to fill a truck and be ready to go to the major markets in Santiago or elsewhere. If the farmer is a bit larger, he or she can hire a truck and send the production to Santiago or other large cities directly.

Most potatoes pass along a large chain of intermediaries until they reach the two main retail outlets. The largest by far are the neighborhood vegetable fairs set up weekly in all small and large cities in Chile, where thousands of small merchants may each sell between 200 to 800 kg of unbranded and ungraded potatoes. The second most important retail outlet is the supermarket, where potatoes are sold in two, five or 10 kg bags of graded potatoes; three brands dominate this outlet.

Industrial processors (of which Nestlé and Pepsico are the largest) and those who supply the fast food and restaurants chains, usually buy their produce from a handful of medium and large producers or import it directly when they need special types of potatoes.

The price paid by the final consumer at the end of the marketing chain is two to four times greater than the price paid to the farmer by the initial intermediary. This price differential has been an important incentive for many small farmers to think about engaging in collective action to market their potatoes.

Potato prices vary significantly between and within years, due to changes in the area under this crop and, thus, in total supply. In the past 26 years, average annual prices (adjusted for inflation) have varied between $ 0.23/kg and $ 0.62/kg. However, with 90,000 producers in the market, there is nothing an EAC could do to regulate supply and thus affect market prices. But an EAC may be able to capture better prices if it could store its potatoes and regulate the timing of sales, as there are also large differences in the monthly prices of potatoes (an average for the past decade of 53% or more between the prices at the best and worse month of the year).

INDAP has promoted the formation of potato grower EACs with two objectives in mind. The most common one has been to allow small farmers to capture a larger share of the final price paid by end consumers, by selling their potatoes at some point further down the marketing chain, and by regulating

the timing of sales through investments in storage capacity.

The second option has been to reach the supermarket with a processed (cleaned, graded and branded) product. An EAC that can sell its product through this outlet can expect to increase its gross income by no less than 75%, although there are processing and marketing costs involved.

Although INDAP has commissioned several studies to analyze the option of setting up EACs engaged in industrial processing of potatoes, the conclusion has always been that this is not a viable option as the resources required are huge, the competition fierce from very large agroindustrial conglomerates such as Nestlé or Pepsico, and the marketing opportunities scarce and dominated by a few firms who have the financial resources and the expertise to easily out-compete any new entrant.

10.2 The case studies

The three case study EACs are the Sociedad Agroindustrial y Comercial Agrocamp S.A., in Region X, and Cooperativa Pullallán Ltda and Agrícola y Comercial Carahue Ltda., both in Region IX.

10.2.1 Sociedad Agroindustrial y Comercial Agrocamp S.A.

The Sociedad Agroindustrial y Comercial Agrocamp S.A. (Agrocamp S.A) was legally founded in late 1996 (but had been operating under that name for at least a year before), by 16 grassroots organizations, themselves legally constituted, who are the shareholders of Agrocamp S.A. These 16 organizations have around 530 members. Agrocamp works mainly in Los Muermos, an area well known as an important potato-producing region.

A brief history

In 1990, INDAP contracted the Federation of Cooperatives of the South (FECOSUR) to provide technical assistance to small farmers in the Los Muermos area. From the start, the head extensionist and the staff of INDAP-Los Muermos, put a strong emphasis on supporting the formation of grassroots organizations for those farmers receiving technical assistance. Local Associations of Small Farmers (APPA) and cooperatives began to form; by 1993 these local EACs were already buying the fertilizer their members would need for the season, and in some cases they had started to negotiate collectively with potato buyers.

As these local experiences were generally successful, the farmers reacted favorably when some of the leaders, with the encouragement and support of INDAP, began to promote the idea of establishing a second-tier organization. The key argument for this move was that by bringing together all the local organizations in Los Muermos, they would control a large enough volume of potatoes to justify establishing their own outlet in the Concepción[52] and Santiago wholesale markets, thus avoiding a number of intermediaries and obtaining better prices for their members.

Organizational structure

Agrocamp has a staff of 22 paid employees, including a General Manager, three people who work in the Administration and Finances department, nine people who make up the Technical Assistance unit, and the rest who are in the Commercial department. There is also an elected Accounts Inspection Commission, actually comprising a single farmer who works on his own without support from any internal or external accountant. Agrocamp's General Manager is also Chairman of the National Potato Network, an umbrella organization for all the potato marketing EACs.

The 16 shareholders (the grassroots EACs) elect a five-member board every three years, although the

[52] Chile's second largest city, more or less half way between Los Muermos and Santiago.

board members have not changed since the organization was formed. The board members claim that they keep being reelected because *"we have received training, have gained knowledge and experience, and besides, it takes a lot of time to do this job, so there are few volunteers"*. Every year there is a general meeting with all the shareholders, which can be attended by any individual member. The local grassroots organizations meet every month. Board members visit each grassroots organization every year. However, some of the farmers I interviewed mentioned that in these meetings they usually talk about new Agrocamp projects and future plans, but the outcome of past Agrocamp activities or its economic or financial situation are never explained.

The General Manager and the board meet at least once a month in a formal session, but if necessary they can get together on an almost daily basis. There appears to be great trust and a good working relationship between the board and the Manager.

Agrocamp is a contractor of INDAP's technical assistance programs, and provides this service to almost all of its members[53].

As mentioned above, the organization was launched with the primary purpose of marketing potatoes, but early on it decided to diversify operations, as the board and management very rapidly realized that potato marketing would not yield sufficient income to justify the organization. Agrocamp now has five Business Units: potato marketing (in Los Muermos and in an outlet at the wholesale market of Concepción), sales of agricultural and construction supplies (starting in 1997), a supermarket (launched in 1998, the first one to be set up in the town of Los Muermos), a veterinary pharmacy (1998), and milk marketing. Agrocamp also owns a small local hotel and some real estate in the town of Los Muermos.

To launch all these ventures and acquire these assets, the EAC has had to incur a substantial debt with INDAP, and at the time of my field work had defaulted on the payments. Even the supermarket was financed by an INDAP loan.

Performance analysis

Agrocamp's annual gross sales have grown by a factor of 30, starting from $ 40,000 in 1996. Although potato marketing was the organization's original intention, gross income from potato sales in 1999 represented less than 7% of total sales. The largest source of income was the sale of agricultural and construction supplies, representing around 70% of total income. The next largest source was from providing technical assistance (about 12% of total income), followed by supermarket sales (8%).

Why do potatoes represent such a low share of the EAC's total annual income? According to a survey of a sample of Agrocamp's farmer members, the members only sell around 9% of their total *marketed* potato production through the EAC (although according to sales figures provided by the General Manager, it is around 14%). However, some of the members who live in more remote areas sell as much as 50% or more of their harvest to the EAC, because in these locations the middlemen pay a lower price. These data are confirmed by the interviews I held with a number of grassroots members in December 1999: the previous season, some of them had not sold even one sack of potatoes through Agrocamp.

Why don't EAC members sell their potatoes through their organization? Some of the board members claimed that this was due to the ingrained individualistic and selfish behavior of small farmers. The General Manager's theory is that they are speculating against future market prices (*"although they usually end up losing money when they do this"*). Most of the grassroots members I interviewed have a different opinion: they say they do not sell to Agrocamp because it is more convenient to work with the traditional middlemen. I agree with this explanation and will now explain why.

In the first year, Agrocamp hired a trader to visit members' farms and offer to buy their produce. The results were disappointing even from the start, with members preferring to sell their produce to the

[53] Although INDAP funds the costs of attending only 330 farmers.

hated *conchenchos* (middlemen). This was ironic, as the whole point of the EAC was to circumvent this middleman system which farmers blame for the low prices they often get for their products. The EAC leaders decided the prices they were offering were not competitive enough.

Hence, the EAC board decided to offer a better price, which ended up being higher than the average market price for the season. Consequently, Agrocamp lost a substantial amount of money. As the President of the Board put it, *"we learned right there that one cannot go against the market price."*

To avoid repeating this mistake, the organization decided to pay farmers only once the potatoes had been sold; that is, between 15 and 30 days after delivery. According to the General Manager, this has solved the potato-marketing operation's cash flow problems, but he failed to mention that it has also resulted in members returning to the old middlemen, who pay cash on delivery, and often pay better prices (in part because they are avoiding paying the 18% Value Added Tax).

Agrocamp briefly sold potatoes to a supermarket in the regional capital city of Puerto Montt. The Manager explains: *"they would pay 60 to 70 days after delivery, return unsold produce, and sold less than 3200 kg per week*[54]*"*. The board members debated a few other ideas, the most sensible of which was the production and marketing of seed potato. Middlemen are far less active in this market and this strategy would allow the EAC to broker deals with other small farmers in the north of the country, where seed potato cannot be produced due to phytosanitary restrictions. This idea has already been put into practice, and they would like to expand it at a faster rate, but lack the necessary financing having defaulted on their INDAP loan repayments.

Despite the actual figures, board members and the Manager do not think they have failed in what they still feel is their essential mission: to improve marketing of their members' potato harvest. They insist that the other businesses are only part of a necessary diversification strategy to support the potato marketing operations. The manager explains: *"our agriculture-related businesses only leave a 2 to 5% profit rate, while those not related to agriculture, like the supermarket, yield 12 to 20%... we create new business units to subsidize agriculture."*

In a meeting I held with the board, they unanimously claimed that even if they did not sell their members' potato harvest directly, they still had an indirect positive effect. Their theory was that they were acting as a price regulator in the region by establishing a price at which potatoes would be bought by Agrocamp. I doubt that this is in fact happening. First of all, if Agrocamp paid prices above the going market price paid by the middlemen, it would incur heavy losses, as happened before. Second, Agrocamp lacks the financial clout to deliver on its promise to buy, at a given price, the production not bought by the middlemen. Third, Agrocamp is certainly buying less than half a percent of the total potato crop in its area of influence, and hence it is a minor player even in the local market. Fourth, even if Agrocamp could influence prices in the area, buyers would still be free to move just a few kilometers away, and buy the production from the region's remaining 20,000 hectares of potatoes.

Not one of the grassroots members I interviewed mentioned potato marketing when asked about the three main benefits of being a member of Agrocamp. The most frequently mentioned benefits were: commercial credit for the purchase of fertilizers, technical assistance at a reasonable cost, and commercial credit for supermarket purchases. Some of the farmers I interviewed claimed that the price of fertilizers and other agricultural supplies in Los Muermos decreased noticeably after Agrocamp started operating in this line of business and began competing against other commercial firms. Several members also mentioned the added convenience of working with technical advisors. Technical advisors can give farmers a purchase order so that they can immediately obtain the necessary agricultural inputs from the EAC itself. These are delivered by Agrocamp to the farmers' fields, saving travel time and red tape, while keeping prices competitive.

The conclusion is that Agrocamp's *marketing program* is not having any major effect, directly or indirectly, on the prices members are paid for their potatoes. Yet, as I will explain below, Agrocamp is

[54] The yield of perhaps less than one-quarter of a hectare, and thus, not a very significant amount if the purpose is to find an outlet for the majority of the EAC members.

having a major influence on its members' net farm and household income, because of its work as a technical assistance consultant and as a supplier of fertilizers and other agricultural inputs.

10.2.2 Cooperativa Pullallán Ltda.

The Cooperativa Pullallán Ltda. is located in the Puerto Saavedra, on Region IX's coast. There is much poverty in this area, with many small farmers being Mapuche people[55], the original inhabitants of Central and Southern Chile (about 90% of the members of Pullalán are Mapuche). Still, according to INDAP sources Cooperativa Pullallán's members tend to have larger farms and be better-off than most of the very poor peasants in the Puerto Saavedra area.

A brief history

The cooperative acquired its current legal status in 1996. But as all the members belong to the same Mapuche local community (*comunidad*), there are family ties among many of them. For many years this community has engaged in collective action through a Small Farmers' Committee, an informal organization frequently found in Mapuche communities. The cooperative was formed because the Committee could not legally engage in formal market transactions of any kind.

The cooperative has 32 members, most of whom used to belong to the Committee (the rest are younger farmers who joined the formal organization when it was established). Although all the members of the Pullallán community were invited to join, not all did. Old rivalries were partly to blame, while not all wanted - or were able - to pay the initial fee of $ 147. Membership is now closed, because as some of the current members explain *"we have made many investments and worked hard to get what we own, so now it would not be fair to let others come and enjoy all of this"*.

The organization has been led since its informal inception by a small group of members, one of whom is very influential in the cooperative, despite not being from the local *Lonko's* household (the head of the Mapuche local community).

Organizational structure

The members meet once a month at a general meeting, with attendance usually between 50 and 60%; however, everyone makes sure not to miss three meetings in a row, because this leads to suspension of his or her membership. All the current board members were selected from among the younger farmers (aged between 21 and 35), a decision that had the unanimous backing of the membership. The board meets every week.

The first President and key leader of the EAC is now the cooperative's administrator, and participates in the weekly board meetings. The members wanted him as administrator so he would be free to travel and work with INDAP, potential buyers, and other farmers' organizations: *"there is no one here with more experience and know-how than him"*. Although the administrator was once paid by the cooperative as a full time employee, the position is now an honorary one because the cooperative can no longer afford the salary. The administrator therefore no longer devotes all his time to EAC business. It is interesting to note that at least one of the younger board members accompanies the administrator to every meeting, be it with INDAP, a client, another organization, and so on. *"We now have contacts with the buyers in Osorno and Santiago, as well as with the firm that sells us the fertilizer, and we know who to talk to in INDAP for the different issues",* says one of these young board members.

External observers familiar with the history of this group explain they have always been active in

[55] Due to centuries of injustice, exclusion and discrimination, poverty is rampant among the Mapuche and other indigenous Chilean populations.

starting new projects, thanks in large part to the strong leadership of one highly motivated and energetic individual. They see the group as solid and well constituted, rights and duties are clear, and the members are always being driven to achieve new goals. In fact several farmers have left the group, unable to cope with the strong peer pressure to achieve.

Pullallán has received loans and grants from INDAP, and other public sources support potato production and marketing. They have designed and implemented small-scale sprinkler irrigation systems on most members' farms, complete with a network of 20 small dams. They own one pump and the full set of pipes and sprinklers, which they move from field to field according to a schedule defined in weekly meetings with the technical advisor.

Early on they built a good, medium-size warehouse to store their harvest, as well as a meeting house which is used by them and the other five community organizations that are active in Pullallán. This building also houses the cooperative's office, and is equipped with two desktop computers; the younger members are being trained to use these PCs.

For two years in a row Pullallán has run a project to collectively produce seed potato for selling to farmers in the north of the country. This operation is run as a sharecropping arrangement between the farmers (who provide the land and labor) and the cooperative (who supplies the certified seed). When I visited Pullallán, the cooperative was also considering buying a truck and a potato harvester to help reduce costs.

Between 1996 and 1999, the cooperative bought into INDAP's technical assistance programs, and was able to hire its own advisors. Every two years, with the aid of the advisors, they run soil fertility tests, a practice they feel has allowed them to make substantial savings on the use of fertilizers.

The members have made significant contributions in cash and in kind to all these projects. Sometimes, some members put up the initial capital, and the cooperative pays them back over a set period and at a prearranged interest rate.

The farmers in Puerto Saavedra are poor and their farms small. Access is also difficult compared with many other potato-growing regions, so there are few middlemen willing to travel to the region to buy their potato harvest. Most of the traders who do go there are small operators who find it hard to compete in more prosperous areas and lack the resources to buy the crop of medium and large farmers. It is likely, therefore, that the farmers of Puerto Saavedra receive some of the lowest prices in the country for their potatoes. When I visited the area in January and February 2000, most farmers were talking of *"the crisis of potato production"* in Puerto Saavedra (due to low prices and a major three-year drought), and the local INDAP office had a record 65% default rate on loans given to potato producers.

Each year since it was formed, the cooperative has sold part of its members' potato harvest at the wholesale markets in Osorno (a medium-sized city in the south) and in Santiago. The contacts with the buyers were established by their leader, whose travel to these cities was funded by INDAP. The board members explained potato prices were between Chilean $ 0.03/kg to $ 0.07/kg higher in these cities than those paid locally by the middlemen; these differences are very substantial. Moreover, they have learned to exploit a window of opportunity in the Osorno market, which they can reach in November before the harvest has started in most areas to the south.[56]

The cooperative also buys potatoes from local farmers who are not members. A board member told me *"we pay them a bit more than what the* conchencho *(middleman) would, but less than the price we pay to our members."* Members also receive preferential prices, though not exclusive access, to the fertilizers the cooperative buys in bulk.

The cooperative ensures that members sell their potatoes through it by linking sales with the supply of its other services, such as the use of the irrigation system or delivery of fertilizers to the farm. If a

[56] Due to phytosanitary restrictions, potatoes from the north cannot be sold in the disease-free areas south of the country. Hence, by harvesting early these farmers are enjoying a regional non-market trade barrier.

member does not sell his or her potatoes through the organization, he or she will not have access to these other services, or will be charged the full non-member fee.

Performance analysis

How effective has this strategy been? Not very, according to the information, opinions and complaints of the board and grassroots members. Based on data from the local survey of members and non-members and the income statements of the cooperative, I estimate that the cooperative is not marketing more than 15% to 20% of its members' total potato harvest. Although low, this share is higher than for most other EACs, according to several well-informed sources and my own case study results.

During a meeting I held with several grassroots members of the Pullallán cooperative, they listed the main problems they face in marketing their potatoes: low quality (*"we use the same seed year after year.. buying new seed is too expensive"*), small volumes, and the *"lack of loyalty of us, the members... the cooperative cannot buy all of our harvest in cash, so we sell part of it to the* conchencho*... also, we have to transport our harvest to the warehouse by cart, while the* conchencho *takes it from the farm; this is why we now want to buy our own truck."*

To raise working capital so as to afford to buy a larger share of the local harvest, the General Meeting approved an extraordinary contribution of $ 315 per member. Those who do not make this contribution will become 'passive members' and will be charged the full commercial fee for all the services provided by the cooperative. A time frame has been established so that all the members, including the poorest ones, can fulfill this obligation.

In 1997 the cooperative was awarded a special grant to train 20 of their members in 'accessing and competing in the potato market'. As a result of this training workshop, they were able to secure a contract with a regional supermarket chain. However, according to one well-informed source, the cooperative could not fulfil its obligation to deliver clean, graded and bagged potatoes, so they eventually lost the contract. This failure was due to three linked factors:

(a) The cooperative was of course tied to its members, that is, a specific group of farmers who are its suppliers. The per kilo production costs for poor farmers are high, because their yields are very low. Quality is uneven, in part because their fields are also uneven and because they use old and degraded seed. Hence, the cooperative was trying to reach a high-end market, more demanding in quality than the wholesale market, from a very weak and unfavorable production base.

(b) The cooperative lacked the financial strength to pay its members cash on delivery, and the supermarkets typically pay only after 60 or more days. Moreover, the supermarket charges them - according to the law - the 18% Value Added Tax, which they cannot claim as a financial credit since most of them are not registered as tax payers. Poor farmers are financially unable to engage in this sort of transaction, so they end up selling a large share of their harvest to the traditional middlemen, who not only pay cash on delivery, but also can pay a slightly higher net price since they operate illegally by avoiding paying VAT.

(c) Because of the small scale of its operations, the cooperative cannot afford to buy the machinery necessary to clean, grade and bag the potatoes they intend to sell to the supermarket. They must hire this service elsewhere, and they end up working with old, inefficient and expensive equipment.

This experience motivated Pullallán to join forces with other organizations to give them a scale of operations necessary for more ambitious projects, such as selling to supermarkets. They joined with other six potato-marketing EACs from Puerto Saavedra and three other neighboring municipalities, to form SOPROPAR S.A., a second-tier EAC that will be their common trader and technical assistance provider.

The farmer who leads the Pullallán cooperative was a major force behind the decision to set up SOPROPAR, and was elected as its first Chairman. One of the organizations that is a member of

SOPROPAR S.A. provided a warehouse in Santiago to be used to wholesale or retail potatoes. In addition, INDAP has lent the new organization a large potato-storage warehouse, built during the agrarian reform in the 1960s. Finally, all the member organizations have renounced their own technical assistance contracts, and the new organization is now hired by INDAP as their common provider of agricultural advisory services.

Some questions that neither INDAP nor the SOPROPAR leadership could answer are why they think that they can build a robust second-tier organization on the basis of seven very weak EACs, and, in particular, why they think they can command the loyalty of their members in marketing potatoes, when the member organizations have failed to do so.

10.2.3 Agrícola y Comercial Carahue Ltda.

Agrícola y Comercial Carahue Ltda. is better known to its members and to external agents as Santa Celia, the name of the sector in the municipality of Carahue, Region IX, where this EAC is based. Although the organization started with about 50 or so members, it now has only 10, of which only eight are still active. All come from the same small sector, and there are close family ties between several of the members. There is no single leader running this organization, but there is a core group of three or four members who appear to have the greatest influence. A distinctive characteristic of Santa Celia is that most of the members are young and have completed at least their high school education, and a few of them even have technical or incomplete university studies.

A brief history

Santa Celia was formally established in 1997, although the group had been working for over 30 years as a Committee of Small Farmers, then as a local group of INDAP's Technology Transfer Program, and since the early 90s as one of the local branches of the Cooperativa El Alma, a large potato-marketing EAC that went bankrupt in the mid-90s.

Since 1991 Cooperativa El Alma had received grants from a major poverty alleviation program funded by the Dutch government; some of these funds were used to build a large number of small warehouses scattered in different sectors of the coastal provinces of Region IX. The idea was that local organizations would collect the potato harvest, to be sold later by Cooperativa El Alma. That EAC faced the same problem of lack of membership loyalty seen today in the cases of Agrocamp and Pullallán. It took only one year of trying to overcome this problem by buying the harvest in cash on delivery, as the traditional middlemen do, for the cooperative to go bankrupt: it is difficult to outsmart and outcompete the traditional traders!

After the failure of El Alma, INDAP started putting pressure on several of the best local groups to formalize their own EACs. The members of San Celia did not see much need for this change in status, since the activities they were interested in carrying out could be done using their informal local Committee of Small Farmers. When INDAP started conditioning the continuity of its support on EAC formation, 10 of the 50 Committee members decided to take the step. However, the Committee of Small Farmers continues to exist, and the members of Santa Celia are also active in that organization.

The group from the Santa Celia sector decided to take advantage of the existing infrastructure, and to try to continue marketing their potatoes together. They were highly motivated by the fact that two of the members had inherited a warehouse in Santiago, located in the middle of a wholesale market neighborhood. Since they now had the capacity to store and regulate the flow of potatoes thanks to the local warehouse, plus the option of retailing their production at the market end because they also had storage facilities in Santiago, they felt they had all the necessary elements to bypass the middlemen and sell directly to final or almost final consumers. As one of the members put it *"for 30 years the Committee had been dreaming about bypassing the* conchenchos*, and we now saw a light at the end of the tunnel"*.

First, they had to take out a loan with INDAP in order to repair the Santiago warehouse and to have some working capital to start their marketing operation. Then, INDAP gave them a grant for a delegation to visit Santiago to learn how the wholesale and retail potato markets worked (as one member of the Board of Santa Celia put it, *"we learned all the theory, but we were left alone to learn how things really work."*).

Part of the loan has been paid with the profits from two small collectively-managed seed potato crops (0.75 ha the first year and 1.75 ha the second year). Once they pay their debts, they plan to continue with this project and to split the profits between the members.

After several months of work, they took their 1997 harvest to Santiago, where they immediately found that they could not compete given the market prices and their cost structure. It took them over one month to sell about three truckloads of potatoes, less than 20% of their total harvest.

Performance analysis

According to information from INDAP and Santa Celia members, and the data I gathered in the survey, I estimate that the direct production, transportation and marketing costs of Santa Celia are around $ 0.14/kg. With these costs and compared with official price statistics for the past decade in the Santiago market, I estimate that, with luck, Santa Celia could have competed in only five of the past 10 years, even when bypassing many middlemen by selling their potatoes in Santiago.

As a comparison, the costs of a sample of five nearby commercial potato farmers were never greater then $ 0.10/kg. Why the difference in costs per kilo? This is because of the commercial farmers' much higher yields, which more than compensate for the differences in direct production, transportation and marketing costs.

Santa Celia's small farmers, with their very low productivity levels due to their late adoption of outdated technologies, cannot expect to compete in a market of undifferentiated commodities, because of Cochrane's treadmill effect (Cochrane,1958) discussed in Chapter 2. Bypassing one or even several links in the marketing chain is simply not enough, as the market price includes the costs of liaising between the producers and the final consumers.

Although these farmers have had the support of different extension programs for many years, they have a very poor opinion of their quality: *"Nobody here believes the technical assistants... there have been so many mistakes and so many failures, and then nobody becomes responsible for them... the technicians come once every so often and they expect us to do as they say."*

After their failed venture in the retail market, the farmers of Santa Celia were more or less forced by INDAP to join SOPROPAR, the second-tier organization to which Cooperative Pullallán also belongs. The Santiago warehouse was turned over to the new organization, and SOPROPAR will hire a trader to run the marketing operation in Santiago. According to INDAP sources, SOPROPAR will be able to do better because it will have a larger stock of potatoes to sell. According to the members of Santa Celia, if SOPROPAR does better it will be due in large part to the fact that the grassroots organizations are shouldering many of the costs; for example, each of the seven member organizations has agreed to lend SOPROPAR one large truckload of potatoes, so that the new EAC can start its operations.

In the face of these results and dim perspectives, I asked the Santa Celia members why they had agreed to join SOPROPAR, and they gave me two reasons. First, INDAP put pressure on them by making it clear that all future loans and grants would be channeled through the new organization; *"we are used to having a* Patrón *[the large landowners before the agrarian reform], and our* Patrón *today is INDAP."* Secondly, one of them says, *"it is the hope we have left... what are we going to do? We know that if we sell to the* conchenchos *we will lose, so we might as well lose on our own. If we stop trying, we might as well sell the land."*

10.3 Performance and impacts of potato-marketing EACs

As with the previous case studies, I will now explain the economic and financial performance of these three EACs, and will then analyze their impacts on their members' household and farm incomes.

10.3.1 Economic and financial performance of the potato-marketing EACs

In this section I will show that these three EACs are not viable economic organizations.

I have two different sources of information for Agrocamp; one an external audit mandated by INDAP in 1999, and the other the unaudited balance sheet and income statements given to me by their own internal accountant. For the other two EACs, I only had access to the information from their accountants. Table 10.1 shows the main results.

According to the external auditors, Agrocamp is broke, while according to its own books, it is in very bad financial shape and close to going broke. According to the external auditors, in 1998 Agrocamp had a modest but positive net income of $ 42,000, while according to their own internal accounts, they lost $ 6,300 that year, despite government grants for close to $ 63,000. The potato-marketing operation is the source of Agrocamp's losses. The external audit makes it clear that Agrocamp's situation has deteriorated sharply since 1997.

On the other hand, Cooperativa Pullallán nominally shows very positive economic and financial results, but this is only due to the fact that 66% of its income comes from government grants. These grants were supposed to be used to pay for the technical advisory services that the organization should give to its members under contract to INDAP, but in fact only 60% or so was spent on this or other purposes, the rest appearing as the organization's profit. The organization did manage to obtain a small profit on its potato-marketing operation, helped in part by the fact that most of its fixed costs and part of its marketing expenses were covered by INDAP grants.

In 1999, Santa Celia experienced a small loss. Although this organization shows a healthy financial status, this is only due to the fact that the board members pledged their own assets in favor of the EAC; otherwise, Santa Celia would also show negative financial results.

What we see then is that the three organizations are losing money and are only sustained thanks to the largesse of INDAP, through its subsidies and loans. In the absence of this substantial support, the three organizations would rapidly collapse.

The common reason for this failure is the inability of these EACs to market their members' potato harvest, who prefer to sell most of their production through the traditional middlemen. The EACs' claim that this failure is largely due to their lack of working capital is only partly true. While they do lack enough financial resources to buy their members' full potato harvest, their accounts clearly show that they could be marketing a much larger share than what is actually being sold through them. This reinforces the members' own arguments that they sell their produce to the middlemen because it is more convenient and profitable than marketing it through their own organizations.

10.3.2 Impact on members´ farms and households

Household income

Table 10.2 shows that the member households of these three EACs have a net income of between 40 and 160% higher than non-members. As in the case of the CALs, the members of these EAC tend to generate more non-farm income than the non-members. Farm income is the main source of total income, but non-farm income is also very important, as its contribution can be as high as 25 to 40% of total income.

Table 10.1 Economic and financial performance of three potato-marketing EACs

Item	**Agrocamp 1998 External audit**	**Agrocamp 1998 Own accounts**	**Pullallán 1998**	**Santa Celia 1999**
Total revenue ($)	1,266,932	1,321,468	51,854	8,235
Total expenses ($)	1,224,694	1,314,955	34,855	8,926
Net result ($)	42,238	- 6,515	16,999	- 690
Total assets ($)	533,769	682,832	45,387	40,384
Current assets ($)	339,174	511,919	29,589	20,413
Noncurrent assets ($)	194,595	170,913	15,798	19,971
Total liabilities ($)	564,430	613,710	9,973	8,977
Current liabilities ($)	429,522	428,895	817	568
Noncurrent liabilities ($)	134,878	184,815	9,155	8,409
Net assets ($)	- 30,661	69,122	35,414	- 2,102
Grants from government ($)	59,193	n.a.	34,074	0
Net result/total revenue	0.03	- 0.05	0.33	- 0.08
Total liabilities/total assets	1.06	0.90	0.22	0.22
Operational capital (current assets – current liabilities) ($)	- 90,377	83,024	28,771	19,845
Liquidity (current assets/current liabilities)	0.79	1.19	36.21	35.96
Dependency (grants/total revenue)	0.05	n.a.	0.66	0

Table 10.2 Income and income composition, Agrocamp, Santa Celia and Coop. Pullallán ($) (1999-2000 agricultural season)

INDICATORS	AGROCAMP		SANTA CELIA		COOP. PULLALLÁN	
	Participants	Non-parts.	Participants	Non-parts.	Participants	Non-parts.
Net hh income	7,495	5,696	7,919	2,955	2,536	1,471
Earned net hh income	7,479	5,314	6,604	1,299	1,380	960
Unearned net hh income	466	382	895	1,656	1,156	511
Non agricultural net income	2,001	235	3,322	1,036	n.a.	n.a.
Farm net income	6,411	2,650	5,917	885	304	-6

In the Santa Celia and Pullallán areas, unearned income (transfers and government subsidies) represents a very large component of total income, possibly reflecting the impact of the multiple poverty alleviation public subsidies, as well as remittances from migrant family members, which are known to be particularly high in the case of Mapuche households.

Farm profits, production and sales

Since I have already shown that these EACs are only marketing a small fraction of the potato harvest, these operations are not likely to be having much impact on members' farm or household income.

However, Table 10.3 shows that all member farmers have higher gross margins per hectare for their potato crop than non-members. This is basically due to their significantly higher yields, more than compensating for their higher direct production expenses[57]. As we saw in the three case studies, the farmers who decided to join these organizations have a long tradition of participation in different technical assistance and extension programs.

Did the best potato farmers join these organizations, or does participation in the organization lead to better results? Probably both. There is no doubt that these three EACs have continued a long process of technology transfer and agricultural advice promoted by INDAP since at least the early 1990s, and in some cases going back even longer. It is likely that the farmers who joined these EACs were more inclined to innovate and were already performing better in terms of yields, costs and quality. But the majority of the farmers I interviewed (with the exception of those from Santa Celia), highly valued the access to technical assistance that the EACs are giving them. Has EAC membership added to the initial technical advantage of their members? I don't know. But INDAP and the farmers need to explain whether it is necessary to go through the whole process of setting up an EAC to have this technical assistance service.

[57] There may be an effect of lower costs of fertilizers and other inputs, since the organizations also offer these supplies at a lower cost to their members. However, I did not measure that variable in the survey, although I did find that the total expenditure per hectare on fertilizers and other inputs was much higher for members than non-members, thus explaining the higher yields.

Table 10.3 Participation in potato-marketing EACs and economic results of potato production (1999-2000 agricultural season)

VARIABLE	THREE EACS		AGROCAMP		SANTA CELIA		COOP. PULLALLÁN	
	Parts.	Non-parts.	Parts.	Non-parts.	Parts.	Non-parts.	Parts.	Non-parts.
Gross income ($)	5,968	1,699	5,173	1,356	10,231	3,095	4,516	1,333
Direct expenses ($)	3,931	1,767	3,465	1,576	5,293	2,654	4,058	1,452
Gross margin ($)	2,037	- 68	1,708	- 220	4,938	441	458	- 119
Gross margin per hectare ($/ha)	679	- 56	657	- 245	667	147	120	- 85
Price ($/kg)	0.09	0.09	0.08	0.08	0.10	0.10	0.10	0.10
Yield (kg/ha)	20,952	15,502	25,808	19,253	14,612	10,049	12,095	9,700
Crop area (ha)	3	1.2	2.6	0.9	7.4	3	3.8	1.4
Production sold (%)	63	47	71	44	60	53	41	42
Production sold through middlemen (%)	57	43	68	44	50	44	23	42

Comparing the farm income item in Table 10.2 with the potato gross margin line in Table 10.3, we can see that for Agrocamp and Santa Celia members, potatoes make a rather small contribution to total farm and household income, while in the case of Pullallán all of the net income comes from potatoes (in fact, the other farm activities are losing money, as net farm income is less than the potato gross margin). A question that should be explored in depth and for which I do not have an answer, is whether there is a relationship between the relative importance of the crop to a household, and the 'loyalty' of the individual member to the organization when it comes to marketing that crop. On the one hand, one could argue that the more important the crop, the more incentive a household would have to become involved in the organization. On the other hand, the more important the crop, the less willing the household would be to market its potatoes through a channel that, as we have seen, offers few benefits compared to the traditional approach.

Table 10.3 also shows that EAC members are more market-oriented than non-members, as a higher percentage of their harvest is sold in the marketplace, with the exception of Pullallán.

The results also confirm that on average (for these three EACs), 94% of the production sold by EAC members is marketed through the traditional middlemen. The Pullallán cooperative sells less than 18% of the total marketed potatoes of its members, and the shares for Santa Celia and Agrocamp are even lower, 10% and 3%, respectively. In fact, EAC members on average receive a slightly lower price for their potatoes than non-members, although the difference is not statistically significant.

A very important finding is that on average the member farmers' on-farm production costs are around

$ 0.09/kg, to which one should add an additional $ 0.03/kg to $ 0.04/kg for transportation costs. These figures leave these farmers in a very uncompetitive position, compared to 'normal' market prices, by at least $ 0.02/kg to $ 0.03/kg, or around 15 to 20% of their current production plus transportation cost. It is impossible even for a very efficient EAC to yield good results when it is starting from such a low point!

This illustrates the need for policies and programs to focus on actions at both the farm and the EAC levels. In the long run, an EAC cannot survive if the primary productivity of its members is so low that, no matter what, it will never be able to buy their products or sell them a service at a price which is realistic both to them and to the members. When many or all of the members have productivity levels that are far below most competitors, there is a strong incentive for the EAC to disengage from them and start acting as *"just another firm, buying and selling from and to whomever it is most convenient"*, as I have heard said by many managers, advisors, policy-makers, and even small farmers on EAC boards.

However, one should remember how difficult and improbable it is for most small farmers, especially the poorest ones, to keep ahead of the mean productivity level in a commodity crop such as potatoes. Cochrane (1958) has already explained the consequences of being trapped on the agricultural treadmill while at the same time being late-adopters of productivity-enhancing technologies. While EACs may improve their chances under certain conditions, they do not seem to offer a definitive means of escaping this fate. Instead, these small potato producers remain in the market only because up to 80% of their direct costs are represented by the opportunity cost of family labor; self-exploitation is what lets these households continue producing potatoes, a strategy that allows them to survive as production and consumption units, but that spells poverty.

Technical assistance, technology adoption and yields

All the EAC members have had access to technical assistance and extension services for at least a decade. In some cases, they are receiving these services from more than one source. Non-members do not have access to direct support, but they benefit indirectly from the local diffusion of many of the innovations introduced by the organized farmers, in particular in Pullallán and Santa Celia where the EACs are so embedded in their local communities. A significant number of EAC members are paying part of the cost of these services, with an average contribution of between $ 32 to $ 53 a year. The result is that most members have adopted more innovations over the past five years than non-members. In the case of Agrocamp, this is true mainly for fertilizer, insecticide and fungicide use, and to a lesser extent crop diversification, new infrastructure, crop varieties, seed quality and artificial insemination of cattle. Santa Celia members are ahead of their control group in terms of use of machinery, equipment fertilizers and insect and disease control. Pullallán members show better results in terms of crop diversification, use of irrigation systems and access to mechanized equipment (Table 10.4). The effect of the greater use of these production technologies is that EAC members have higher yields not only in potatoes, but also in other locally important enterprises such as oats and milk (Table 10.5).

Table 10.4 Technological changes implemented in the past five years, Agrocamp, Santa Celia and Coop. Pullallán

INDICATORS	AGROCAMP		SANTA CELIA		COOP. PULLALLÁN	
	Participants	Non-parts.	Participants	Non-parts.	Participants	Non-parts.
	Yes %	Yes %	Yes %	Yes %	Yes %	Yes %
Crop diversification	53.3	40	22.2	40	50	20
Contract agriculture	3.3	0	0	0	0	0
Marketing of inputs of products	33.3	26.7	55.6	0	70	20
Irrigation and drainage	0	11.8	0	0	25	0
Machinery and equipment	13.3	16.7	66.7	20	50	20
Constructions and infrastructure	53.3	33.3	33.3	40	50	30
Crop varieties and seed quality	63.3	56.7	77.8	70	80	80
Use of fertilizers	86.7	53.3	66.7	30	80	70
Weed control	46.7	33.3	77.8	70	90	90
Insect and disease control	26.7	6.7	77.8	40	80	70
Cattle breeds	17.2	20	0	10	22.2	20
Reproduction of cattle	51.7	33.3	11.1	22.2	22.2	10
Sanitary management of cattle	75.9	63.3	88.9	60	60	60

Table 10.5 Average yields, Agrocamp, Santa Celia and Coop. Pullallán (1999-2000 agricultural season)

INDICATORS	AGROCAMP		SANTA CELIA		COOP. PULLALLÁN	
	Participants	Non-participants	Participants	Non-participants	Participants	Non-participants
Oats (Kg/ha)	4,605	3,188	2,236	996	3,520	2,301
Potatoes (Kg/ha)	20,952	15,502	25,808	19,253	14,612	10,049
Milk cow (Lt/cow/yr)	2,143	1,774	311	216	257	192

EAC members are also ahead of non-members in terms of the incorporation of some new farm management practices, notably costs and income records: 17%, 22% and 70% of the Agrocamp, Santa Celia and Pullallán members keep records, while none of the farmers in the control groups do so. However, there are no differences in terms of other management practices, such as VAT accounting and filing, being legally registered as farmers for fiscal purposes or holding bank accounts (Table 10.6).

Table 10.6. Farm management practices, Agrocamp, Santa Celia and Coop. Pullallán

INDICATORS	AGROCAMP		SANTA CELIA		COOP. PULLALLÁN	
	Parts.	Non-parts.	Parts.	Non-parts.	Parts.	Non-parts.
	Yes %	Yes %	Yes %	Yes %	Yes %	Yes %
Farmers legally registered for fiscal purposes	13.3	6.7	22.2	30	20	0
VAT accounting and filing	6.7	6.7	22.2	30	20	0
Costs and income records	16.7	0	22.2	0	70	0
Holds a bank account	3.3	0	11.1	0	10	0
Legalized land titles	64.3	86.2	100	88.9	100	62.5
Legalized water titles	0	0	0	0	0	0

Access to credit

In the case of Agrocamp and Santa Celia, over 60% of the members and a slightly smaller proportion of the non-members have access to agricultural credit from INDAP. These are basically short term loans. The amount lent by INDAP to the members is significantly larger than to non-members, by as much as 94% in the case of Agrocamp, and by 13% in the case of Santa Celia. In the case of Pullallán, less than one-third of the members had access to INDAP loans last season, but this is most likely due to many of them having defaulted on previous payments. Only a handful of farmers, members or non-members, have access to credit from other sources, such as the State Bank, private banks, or commercial credit from agricultural supply firms (Table 10.7).

Table 10.7. Access to credit, Agrocamp, Santa Celia and Coop. Pullallán

INDICATORS	AGROCAMP				SANTA CELIA				COOP. PULLALLÁN			
	Parts.		Non-parts.		Parts.		Non-parts.		Parts.		Non-parts.	
	Nº	$	Nº	$	Nº	$	Nº	$	Nº	$	Nº	$
Total loans	23	1,455	16	731	6	1,710	6	2,554	3	610	1	526
Short term loans	23	1,109	14	625	6	1,710	6	2,186	3	610	1	526
Long term loans	5	1,608	2	1,472	0	0	1	2,207	0	0	0	0
INDAP loans	21	1,413	16	731	6	1,710	4	1,519	3	610	1	526
State bank loans	0	0	0	0	0	0	2	4,625	0	0	0	0
EAC loans	3	1,261	0	0	0	0	0	0	0	0	0	0

All EAC members valued the simplification of loan paperwork for members. The common practice is for the technical advisors to fill in the loan applications in the field, and then take care of the

paperwork at the INDAP office. Although not as frequently mentioned by the farmers, but emphasized by INDAP sources, an additional advantage is that those who are organized have more leverage to ask INDAP to reschedule debts, although, as seen in the case of Pullallán, there is a limit to how far INDAP is willing to go, and eventually those who do not pay will end up without access to this service.

10.4 Explaining the performance differences

In the previous section we saw that members of these three EACs tend to have higher household and farm incomes. In this section I will explore the probable reasons for that finding.

10.4.1 Farmers' assets

The members of the potato-marketing EACs are less poor and better educated than non-members.

Household characteristics (human capital)

In the case of Agrocamp, members have significantly larger households and, in particular, more male members of ages 19 to 45, suggesting that there is greater seasonal or permanent out-migration from non-member households. However, this does not seem to be the case for the other two case studies (Table 10.8).

There are important differences between members and non-members in educational levels. In Santa Celia, heads of household, males, females, and all age groups are distinctly better educated than non-members. In Agrocamp, members are doing better in terms of the education of women and the younger generations. In Pullallán, only the head of the members' households are ahead of their counterparts in educational attainment (Table 10.8).

Physical and financial assets

In all cases, EAC members have more land, owned and managed, than non-members. The differences in land owned are of 64%, 30%, and 200% in favor of the members of Agrocamp, Santa Celia and Pullallán, respectively (Table 10.9). Members also tend to own more buildings and infrastructure, machinery and equipment, and livestock (Table 10.10). On the other hand, there are no differences between members and non-members in terms of distance to a road with public transportation or to nearest town or city.

I did not find any quantitative or qualitative evidence whatsoever to suggest that EAC participation has allowed members to acquire these valuable assets; one must conclude that the poorest farmers have been left out of these organizations. There are two probable explanations: first, all these EACs require new members to contribute cash to constitute the organization's initial capital, and the poorest farmers may be incapable of paying this fee. Second, the poorest farmers consume most of their potato crop within the household, and therefore have less reason to join a potato-marketing EAC.

Table 10.8 Household composition, Agrocamp, Santa Celia and Coop. Pullallán

INDICATORS	AGROCAMP		SANTA CELIA		COOP. PULLALLÁN	
	Parts.	Non-parts.	Parts.	Non-parts.	Parts.	Non-parts.
Members of household	4.9	4	4.6	5.1	3.7	4.2
Female members	2.2	1.8	2.2	2.2	1.7	2.2
Male members	2.7	2.2	2.3	2.9	2	2
Members 0-12 yrs.	1.1	0.7	1.4	0.8	1.1	1.2
Members 13-18 yrs.	0.5	0.4	0.7	0.7	0.6	0.7
Members 19-30 yrs.	0.9	0.6	0.4	1.1	0.4	0.5
Members 31-45 yrs.	1.2	0.9	1.2	0.9	0.8	1
Members 46-65 yrs.	0.8	1.1	0.8	1.3	0.4	0.5
Members 66+ yrs.	0.4	0.3	0	0.3	0.4	0.3
Schooling members 7 yrs or +	5.5	6.6	8.3	5.6	7	5.7
Schooling members 15 yrs or +	5.7	6.8	10	5.8	7.7	5.5
Schooling members 19-30 yrs or +	3.9	5.4	3.7	5.1	3	2.8
Schooling members 31-45 yrs or +	4.3	4.6	9.5	3.1	5	4.7
Schooling members 46-65 yrs or +	2.6	3.5	5.6	3	0.8	1.8
Schooling members 66 yrs or +	1	0.9	0	0.3	0.7	0.3
Schooling of head of hh	5.1	5.5	10.3	4.4	*8.4	5.2
Schooling of spouse	4	5.9	8.1	5.1	4.2	4.9
Schooling of sons/daughters	5.7	5.7	5.1	4.3	3.2	3
Schooling of other members of hh	0.8	1.1	0.4	1.2	0	0.4
Schooling female members of hh	4.3	6.6	7.2	5.1	3.8	3.8
Schooling male members of hh	5.6	5.5	9.1	4.9	7.2	5.3
Age of head of hh	53.2	53	46	52.9	47.4	44.6
Age of spouse	40	43	37.8	43.6	39.7	32.5
Age of sons/daughters	19.2	14.5	11.8	13.8	6.7	6.9
Dependency ratio	0.7	0.5	0.6	0.4	1	0.8

Table 10.9 Land assets, Agrocamp, Santa Celia and Coop. Pullallán

INDICATORS	AGROCAMP		SANTA CELIA		COOP. PULLALLÁN	
	Parts.	Non-parts.	Parts.	Non-parts.	Parts.	Non-parts.
Land owned by hh (ha)	29.06	17.71	38.44	29.65	15.40	4.77
Land taken by hh, shareholding (ha)	0	0	6.77	2.90	0.40	1.12
Land taken by hh, rental (ha)	2.68	0.10	0	1.40	1.87	0.3
Land taken by hh, other contracts (ha)	0.46	0.16	0	0	0	0
Land let by hh, shareholding (ha)	0	0	0	1.50	0	0.30
Land let by hh, rental (ha)	0.10	0	0.66	3	0	0
Land let by hh, other contracts (ha)	0.66	0	0	0	0	0
Land under management by hh (ha)	31.45	17.98	44.55	29.45	17.67	5.90

Table 10.10 Fixed and quasi-fixed assets, Agrocamp, Santa Celia and Coop. Pullallán ($)

INDICATORS	AGROCAMP		SANTA CELIA		COOP. PULLALLÁN	
	Parts.	Non-parts.	Parts.	Non-parts.	Parts.	Non-parts.
Value of buildings and infrastructure	13,766	15,191	28,599	14,873	14,157	4,202
Value of machinery and equipment	1,236	673	4,886	2,846	1,791	299
Value of land owned by hh	31,340	18,679	60,650	71,802	30,478	6,269
Value of livestock	4,144	2,876	3,998	3,162	1,791	978
Total value of physical assets	50,078	37,330	93,931	92,707	48,219	11,749

So, while it makes sense for a poor farmer to stay away from such an EAC, it is troubling that INDAP channels a higher share of *all* its loans and subsidies to the organizations and to those who are organized. In this way the poorest farmers are excluded from services they do need and are likely to want, such as technical advice and credit. Why does INDAP do this? The first incentive is political: an organization has more political visibility and power than one isolated poor farmer. The second incentive is that of increased government efficiency: working through the organizations allows INDAP to reach many more farmers at a significantly lower cost, and thus enhances its capacity to reach more households with the same budget.

10.4.2 Social capital

As with the previous sets of case studies, I will discuss the role of social capital in the performance of these three EACs from four points of view: participation in organizations, social norms that foster cooperation, systems of rules, and involvement of these EACs in larger networks.

Participation in community and economic organizations

The members of these three EACs show a significantly higher degree of participation in other economic organizations and collective action projects, compared to non-members. The differences are important in most of the types of organizations and projects included in the case study surveys, except for those exclusively made up of youth and women. Moreover, the members of these three EACs are five or six times more likely to hold leadership positions in these other economic organizations or projects (Table 10.11). However, participation in non-economic community groups tends to be more even, and in some specific cases the non-members show a greater degree of involvement.

Table 10.11 Participation in development projects and organizations, Agrocamp, Santa Celia and Coop. Pullallán

INDICATORS	**AGROCAMP**		**SANTA CELIA**		**COOP. PULLALLÁN**	
	Parts.	**Non-parts.**	**Parts.**	**Non-parts.**	**Parts.**	**Non-parts.**
	Yes %	**Yes %**	**Yes %**	**Yes %**	**Yes %**	**Yes %**
Organizations or projects with economic objectives						
Irrigation or drainage	0	0	0	0	10	0
Marketing of products or purchasing of inputs	23.3	0	0	0	10	0
Soil conservation and pasture improvement	16.7	13.3	0	0	0	0
Storage of products	13.3	6.7	11.1	0	10	0
Youth organizations	0	0	0	0	10	0
Women's organizations	0	0	11.1	0	0	0
Trade organizations	20	26.7	11.1	0	10	0
Cooperatives	30	3.3	0	0	10	0
Held leadership position in any of the above	33.3	6.7	44.4	10	60	0
Organizations or projects with social development objectives						
Neighborhood committee	73.3	53.3	33.3	30	70	30
Sports, culture and recreation	56.7	43.3	33.3	60	50	60
Housing or local improvement	26.7	20	55.6	30	10	30

Table 10.12 Perceptions of costs and benefits of EAC participation, Agrocamp, Santa Celia and Coop. Pullallán

INDICATORS	**AGROCAMP**				**SANTA CELIA**				**COOP. PULLALLÁN**			
	Parts.		**Non-parts.**		**Parts.**		**Non-parts.**		**Parts.**		**Non-parts.**	
	Not True %	**True**	**Not True %**	**True**	**Not True %**	**True**	**Not True %**	**True**	**Not True %**	**True**	**Not True %**	**True**
Benefits												
Improved household income	16.7	56.7	28.6	71.4	44.4	11.1	83.3	16.7	30	60	0	0
Improved yields and production	10	76.7	7.1	85.7	44.4	22.2	50	50	33.3	44.4	0	0
New crops and livestock	56.7	43.3	35.7	57.1	88.9	11.1	100	0	50	40	0	0
Improved marketing	50	20	50	42.9	44.4	11.1	66.7	16.7	11.1	44.4	0	0
Improved prices of products	66.7	23.3	100	0	77.8	11.1	83.3	0	40	50	0	0
Lowered production costs	33.3	43.3	35.7	57.1	55.6	33.3	50	50	30	60	0	0
Farm improvements	16.7	80	7.1	92.9	88.9	11.1	100	0	50	40	0	0
Improved quality of life for family	30	60	0	100	77.8	22.2	80	0	20	50	0	0
Improved quality of life for women	48.1	40.7	0	100	55.6	33.3	100	0	30	50	0	0
Improved quality of life for youth	35.7	39.3	0	100	55.6	22.2	100	0	40	50	0	0
Optimistic view of the future	25	50	21.4	57.1	11.1	55.6	40	40	30	70	0	0
Improved relations with govt. agencies	41.7	33.3	21.4	71.4	44.4	44.4	83.3	16.7	20	60	0	0
Improved relations with municipal govt.	40	40	28.6	64.3	22.2	77.8	20	80	90	0	0	0
Improved relations with neighbors	10.3	75.9	0	85.7	11.1	66.7	0	83.3	20	50	0	0
Doing better as small farmers	14.8	66.7	0	100	44.4	22.2	50	16.7	10	70	0	0
Costs												
Incurring debts	10	80	50	50	22.2	77.8	0	100	50	40	0	0
Membership fees	0	100	42.9	57.1	11.1	88.9	0	100	40	60	0	0
Greater risks in agriculture	33.3	51.9	83.3	16.7	33.3	66.7	33.3	66.7	20	70	0	0
Loss of time in meetings	36.7	33.3	50	42.9	0	55.6	50	33.3	40	30	0	0
Share of product prices taken by org.	80	20	28.6	71.4	66.7	33.3	100	0	50	50	0	0
Worsened relationships with neighbors	86.7	0	85.7	0	88.9	0	83.3	0	100	0	0	0
Some take advantage of others	44.4	44.4	15.4	84.6	33.3	55.6	33.3	66.7	50	40	0	0
Less trust in the future	44.8	34.5	69.2	15.4	22.2	33.3	0	100	70	20	0	0

In terms of their perception of the costs and benefits of participating in an EAC, a solid majority (60% or more of the responses) of Agrocamp's members think that participation leads to higher yields and production, farm improvements, improved quality of life for the family, better relations with their neighbors, and to doing better in the future as small farmers. A clear majority also does not think that EAC participation results in receiving higher prices for their products. With respect to costs, most Agrocamp members think that EAC participation leads to greater debts and to having to pay membership fees, while they clearly disagree with the idea that participation means that the EAC will take a fraction of the price received for their products or that it will result in conflicts with their neighbors (Table 10.12).

A clear majority of the members of Santa Celia agree only about two benefits: improved relations with the municipal government, and with their neighbors. A majority also agrees that the following are *not* benefits of EAC participation: diversification into new crops or animal production enterprises, improved prices for their products, farm improvements, or achieving a better quality of life for their families. In terms of costs, a significant majority of the members agree that these include higher debts, paying membership fees, and having to take greater risks as a farmer. However, they also agree that conflicts with the neighbors are not a cost of participation, or that the EAC will charge them a commission on the price its products (Table 10.12).

In the case of Pullallán, a clear majority of the members identify the following as benefits of participation: higher household income, lower production costs, better relationships with national government agencies (but not with the municipal government), and doing better in the future as small farmers. Most members agree that participation led to taking greater risks in agriculture and to having to pay membership fees (Table 10.12).

In summary, while members of these three EACs have a tendency to participate more in other economic organizations and projects, their reasons for doing so vary. The only clear benefit they perceive is that participation leads to better relations with their neighbors. They clearly do not join to receive better product prices (despite the fact that this was the major reason for forming the EAC in the first place). They agree strongly that the main costs are paying membership fees, incurring debts, and raising the risk of agriculture. In other words, the costs perceived by the majority are of an economic nature, while the perceived gains are all social.

Norms that foster cooperation

Non-member farmers in Pullallán and Santa Celia have less trust in their neighbors and in the benefits of collective action than the EAC members. Whilst most feel that community or economic organizations are always or almost always beneficial, they also think that they benefit only a few of the members. The non-members in these two localities also agree that most people try to take advantage of others, and that they only care for themselves. A large majority of the Pullallán non-members add that you cannot trust most people (Table 10.13).

On the other hand, the members of the Pullallán and Santa Celia EACs only agree with the statement that most people only care for themselves, but not with any of the other options that would suggest a lack of trust in their neighbors or in collective organizations. In fact, the majority of the members of these two EACs think that economic and community organizations are always or almost always beneficial, and that their benefits reach the majority of the members. The Santa Celia members think that today it is easier to form a community or economic organization (Table 10.13).

Table 10.13 Trust, cooperation, reciprocity and view of the future, Agrocamp, Santa Celia and Coop. Pullallán

QUESTION	**AGROCAMP**				**SANTA CELIA**				**COOP. PULLALLÁN**			
	Participants		**Non-participants**		**Participants**		**Non-participants**		**Participants**		**Non-participants**	
Ease of organizing with neighbors, compared to 10 years ago	More Difficult %	Easier %	More Difficult %	Easier %	More Difficult %	Easier %	More Difficult %	Easier %	More Difficult %	Easier %	More Difficult %	Easier %
	13.3	53.3	26.7	43.3	22.2	66.7	50	50	10	40	30	30
Household´s degree of participation in organizations compared to neighbors'	Less %	More %	Less %	More %	Less %	More %	Less %	More %	Less %	More %	Less %	More %
	23.3	33.3	10	36.7	22.2	66.7	10	30	0	50	50	0
Community and farmers´ organizations are useful	Never or Almost never %	Always or Almost Always %	Never or Almost never %	Always or Almost Always %	Never or Almost never %	Always or Almost Always %	Never or Almost never %	Always or Almost Always %	Never or Almost never %	Always or Almost Always %	Never or Almost never %	Always or Almost Always %
	0	83.3	13.3	76.7	0	88.9	40	60	0	100	30	70
For you and your family, participation in organizations is:	Waste of time %	Beneficial %	Waste of time %	Beneficial %	Waste of time %	Beneficial %	Waste of time %	Beneficial %	Waste of time %	Beneficial %	Waste of time %	Beneficial %
	6.7	70	20	56.7	11.1	44.4	20	50	0	70	50	20
Farmers' and community organizations benefit…	Only a few or none %	The majority %	Only a few or none %	The majority %	Only a few or none %	The majority %	Only a few or none %	The majority %	Only a few or none %	The majority %	Only a few or none %	The majority %
	33.3	56.7	46.7	53.3	33.3	66.7	60	40	20	70	80	20
Can you trust most people?	No %	Yes %	No %	Yes %	No %	Yes %	No %	Yes %	No %	Yes %	No %	Yes %
	73.3	20	63.3	16.7	55.6	44.4	40	50	40	50	80	20
Most people…	Only care for themselves %	Try to help others %	Only care for themselves %	Try to help others %	Only care for themselves %	Try to help others %	Only care for themselves %	Try to help others %	Only care for themselves %	Try to help others %	Only care for themselves %	Try to help others %
	76.7	6.7	63.3	23.3	77.8	22.2	50	40	60	40	90	10
Most people…	Take advantage of the rest %	Try to be fair %	Take advantage of the rest %	Try to be fair %	Take advantage of the rest %	Try to be fair %	Take advantage of the rest %	Try to be fair %	Take advantage of the rest %	Try to be fair %	Take advantage of the rest %	Try to be fair %
	36.7	33.3	63.3	13.3	55.6	44.4	80	20	60	30	80	20
Your situation as small farmers compared to 10 years ago has…	Worsened %	Improved %	Worsened %	Improved %	Worsened %	Improved %	Worsened %	Improved %	Worsened %	Improved %	Worsened %	Improved %
	16.7	73.3	26.7	40	33.3	44.4	60	40	30	20	40	30
In the next 10 years, will your situation as small farmers…	Worsen %	Improve %	Worsen %	Improve %	Worsen %	Improve %	Worsen %	Improve %	Worsen %	Improve %	Worsen %	Improve %
	10	36.6	10	43	22.2	55.6	30	40	10	90	20	50

In the case of Agrocamp, there are no major differences of opinion between members and non-members. Both groups feel that community and economic organizations are always or almost always useful, but they also think that you can't trust most people and that most people only care for themselves (Table 10.13).

Networks

Cooperative Pullallán and Santa Celia are very strongly embedded in their communities. They are the product of long histories of community-based collective action, and both grew directly out of Small Farmers Committees - for decades the predominant form of organization for agricultural production. However, the step to become formal, legally constituted business-oriented organizations, has clearly divided both communities: while the Small Farmers Committees included most people, the new EACs represent only those who are wealthier or less poor, and thus more market-oriented. Nevertheless, community relations have not been strained. The many non-members whom I interviewed do not seem to feel excluded from membership; instead, they say that it was they who decided not to join. They also feel that the EACs have given them some direct and indirect benefits, such as having access to new technologies, being able to join with the EAC members to buy fertilizer and other agricultural supplies, or having access to the EACs' warehouses or Meeting Houses. Although the non-members continue to work with the traditional middlemen - as do the members - the EAC is an additional option to consider each time they need to sell their potatoes. The EAC members continue to work with and, in many instances, lead the different community organizations that coexist alongside the EACs.

Agrocamp is a different matter. In this case the organization is almost completely separated from the local communities to which their members belong. The links with the grassroots organizations that are Agrocamp's shareholders are largely formal, and one has no significant influence on the daily life and work of the other. Agrocamp is basically seen by the individual grassroots members as just another business firm, although they do recognize that being owned by a group of farmers' organizations gives them certain benefits that they could not expect from a typical business firm. The grassroots members whom I interviewed have no interest or intention of getting more involved in the management or daily work of Agrocamp. As in the case of Santa Celia and Pullallán, the individual farmers who belong to the grassroots organizations which make up Agrocamp also tend to be among the wealthier or less poor households in their communities.

In contrast with the Milk Collection Centers I described earlier, these EACs do not maintain permanent relations with a specific market agent. In fact, their main problem is that they have little connection with their target market; the exception being Agrocamp with its supermarket and fertilizer operations. These organizations were formed because of a false image of how the market is organized and functions. For decades, as one of the farmers I interviewed said, they had thought that local prices were the result of some sort of conspiracy by the *conchenchos*, and that all would be well if they could just get together and take their potatoes to Santiago or Concepción directly. This misconception has meant that members continue to deal with the same middlemen, in the same old way that for decades they have considered unfair. By not conforming to the real ways in which markets work, these organizations have ended up being largely irrelevant as potato-marketing EACs.

As their links with the markets have failed, these EACs have become more and more dependent on INDAP. This is a lesson: if an economic organization cannot link to a market-demand engine, it will either disappear or run into the arms of some public or non-governmental agency willing to protect it and sustain it. As one of the members said; *"INDAP is our* Patrón*",* and until now it has been a nice *Patrón*, pumping millions of pesos into keeping these EACs alive. Why has INDAP been willing to do this? There are a few reasons, including:

- lack of information and analysis about the future prospects of the EACs and the belief that the problem has been one of implementation and not a fundamental flaw in design;
- an unwillingness to pay the political cost of letting these organizations fail;

- an institutional culture in INDAP that thinks that letting these EACs go would be tantamount to betraying the peasantry, to whose cause and survival most of the INDAP staff are deeply and sincerely committed.

As part of their survival strategies Agrocamp and Pullallán have totally dismissed the intermediate external technical agencies that helped them in their initial years. Basically, they needed the resources that used to be channeled by INDAP to those agencies in order to cover the growing gaps in their annual net results. Besides, the advisory services that are now being provided by their own staff are reasonably well evaluated by the farmers. The question is whether the large share of resources that is being deviated from its intended use - technical advice - could not be better used to find new options to improve farming systems and the well-being of these farmers. The fact that the three organizations continue to insist on the same failed approach to doing business suggests that there is a lack of strategic thinking about fresh new courses.

Systems of rules

Table 10.14 (adapted from Ostrom, 1990 - see Chapter 2, Section 2.5) summarizes the systems of rules that govern these EACs. What we see are three completely different situations:

- ***Agrocamp***. The relationship between Agrocamp and its members increasingly resembles the type of interaction that any commercial business firm has with its clients. Just like a regular firm has certain preferential clients, so Agrocamp gives some additional benefits to its members (such as 30-day credit in supermarket purchases). The shareholders do not act in their capacity as owners of Agrocamp, and they have left the organization to be run by the small group of farmers who are board members and by the General Manager. The grassroots individual members could not care less about being actively involved in Agrocamp's decision-making process. Strictly speaking, Agrocamp should probably not be considered an EAC at all, at least by my definition which requires that the members control the decision-making process of their organization.

- ***Santa Celia***. This EAC has reverted to the system of rules that characterizes the traditional Small Farmers Committees, despite maintaining the decision-making structures and authorities required by law. This system of rules has evolved over at least 30 or 40 years, and is very appropriate to the needs of this organization.

- ***Pullallán***. Pullallán's rule system is a mixture between a cooperative and a Small Farmers Committee. As in a cooperative, the elected board is in place and functions as an effective decision-making unit, but the general meeting of members is also very active, as in the traditional Committees. Two interesting innovations deserve attention: first, members can decide whether or not to participate in the organization's projects and activities, and thereby decide which obligations they want to assume and which rewards they expect to obtain. The second is an exception to the first rule, and is the decision to link the cost of some key services to the degree of members' participation in the potato-marketing operation. Also of importance in this case is the good balance achieved between the role of their major leader, and the democratic and participatory functioning of the organization. The leader exerts his influence because of his greater knowledge and experience, and not by imposing his will against that of the majority of the members. The leader has also made persistent and fruitful efforts to bring young members into leadership positions, and to help them acquire experience and expertise by insisting that they actively participate in the meetings and activities that are his responsibility.

Table 10.14 Rules of Agrocamp, Santa Celia and Pullallán (based on Ostrom, 1990)

RULES	**Agrocamp**	**Santa Celia**	**Pullallán**
Clearly defined boundaries	Ownership is formally defined, but in fact the governance of the organization is out of the hands of the members. Access to its services is fully open, although the members do obtain limited preferential treatment. The EAC resembles a conventional commercial firm, with the members being treated more or less equally to other clients.	Membership is clearly defined.	
Low cost systems for monitoring compliance	There is no monitoring system in place that allows the members to be informed and take action. In fact, the grassroots members show no interest in being informed or in becoming involved in running the EAC. In practice, there are no rules to be enforced, other than the commercial obligations that the members acquire when they purchase agricultural inputs or consumer goods on credit.	Well-defined and efficient monitoring system of compliance with key rules is in place. The fundamental rule that members should market their potatoes through the organization, is not and cannot be enforced, as it would surely lead to the breakup of the organization. Other rules guiding participation in meetings and other activities, are enforced on a regular basis	Well-defined and efficient monitoring system of compliance with key rules is in place. Compliance with the fundamental rule that members should market their potatoes through the organization is partially encouraged by linking it to preferential access to other services provided by the organization.
Congruence between appropriation and provision rules, and market conditions	Currently the members make no contributions. Although each of the 16 shareholders was supposed to have contributed $ 2,100 to the assets of the organization, many have not done so. All individual members and all the shareholders have access to the same services, regardless of their contribution. The nominal operational rule that members should market their potatoes through the EAC, is not coherent with market conditions.	Not for potato marketing. For other services and activities, those who have contributed receive greater benefits than those who haven't. The nominal operational rule that members should market their potatoes through the EAC, is not coherent with market conditions.	
Graduated sanctions for non-compliance with rules	No sanctions are enforced, as members in fact are not expected to make any contributions or perform any duty. The EAC itself lacks any real authority to impose any type of sanction on a member.	The EAC expelled one member when he committed a major offense.	For potato marketing, the EAC lacks the means and authority to apply sanctions to those who do not comply with the rule of selling the crop through the organization, although it does link the access to and cost of other services to their contribution to the marketing operation. For other aspects,

RULES	**Agrocamp**	**Santa Celia**	**Pullallán**
			the EAC has devised a system where a member can decide whether to participate in projects. Once a member is 'in', then sanctions are applied if necessary.
Participation of members in defining and changing rules	None. The EAC is run by the General Manager and the board (same board members since the EAC was formed).	Although there is a board in order to comply with legal requirements, the organization is in fact run by the group as a whole, who make all decisions together in periodic meetings.	Members are regularly consulted in frequent meetings. The board also functions as a decision-making unit, meeting weekly to decide on all aspects of the organization. One member has a strong influence on the decision-making process, but not to the extent of undermining the role or authority of the general meetings or of the board.
Low cost mechanisms for solving conflicts	Conflict management and resolution takes place behind closed doors in board meetings. According to the board members, *"there are never any conflicts"*.	The monthly meetings are the forum where problems or conflicts are discussed and solved. Most conflicts are solved by consensus. However, in both cases the members recognize the authority of the general meeting to make decisions by majority vote if necessary.	
External authorities respect the right of members to establish their own rules	INDAP is on a crash course to exerting greater control over the organization and its management, as it needs to control Agrocamp's financial crisis.	INDAP has imposed decisions that were formally and openly opposed by the EAC, by threatening to withhold its support.	INDAP has a great respect for the main leader of the organization, and thus more or less allows this EAC to run its own affairs.