CHAPTER 13. DISCUSSION AND CONCLUSIONS

13.1 The context: a reminder

This study analyzed the emergence and development of *Empresas Asociativas Campesinas* (EACs), or Associative Peasant Business Firms in Chile. Since the early 1990s, these EACs have been a key part of Chile's new small-scale agricultural development strategy; a strategy launched in response to the opportunities and threats stemming from the liberalization and globalization of the Chilean economy, and of the agricultural sector in particular.

This new strategy arose from the realization that focusing on increased productivity in the commodity sector was achieving little. The Chilean economy was already committed to a process of liberalization, and agriculture was inevitably going to be exposed to intense international competition. Commodity prices were likely to continue their downward trend, pushed by the global processes of technology innovation and diffusion. Small farmers in Chile would be continually trying to catch up with those leading the technological innovation process, always behind the going price while lacking the capacities of the most competitive in the global market, only surviving by self-exploiting family labor.

The previous years had shown the limitations of public policies aimed at halting this treadmill, such as the price stabilization programs for the main commodities launched in the early 1980s. For about five or six years, those policies brought good prices and favorable marketing conditions for the key commodity crops grown by small-scale farmers. But by the early '90s this impact was eroded by declining international prices and the appreciation of the Chilean peso against the US dollar.

Small farmers were painfully aware of the futility of the strategy to increase yields for commodity crops. How often did we hear them complain that they were sick and tired of seeing extensionists demonstrate the advantages of yet another improved wheat variety! They would explain that they had done as they were told; thousands of small producers over the past 10 years had increased their yields to levels as high as 4 or 5 tons/ha for wheat, 12 tons/ha for maize, or 60 tons/ha for sugarbeet, and yet they were often worse off than before in terms of their income and welfare, as the real prices of these products dropped by 25% to 50%. As one peasant asked in despair: "*When is this progress going to end? Before progress came, we used to live very well...*"

The only alternative for small-scale farming was to diversify into new, higher-value, non-traditional products, linked to more dynamic markets, in which small farmers could capture a larger share of the final price paid by consumers by engaging directly in marketing and value-adding activities.

This new approach began to take shape in the early '90s, based on three explicit policy statements, which implied a break with the conventional thinking about peasant agriculture and its options for development:

(1) The market-driven nature of small-scale farming in Chile means moving away from traditional commodities destined for the domestic market, into diversified non-traditional products linked to agroindustrial, export and niche markets.

(2) The arena for public policy support to such an approach is no longer the linear research-extension-farmer arrangement, but complex and diverse private-public networks and alliances, within well defined rural territories and geared towards gaining access by peasant farmers to clearly identified market opportunities.

(3) The primary social agents for the development of small-scale agriculture are to be business-oriented farmers' organizations (EACs).

The new policy orientation was strongly influenced by a context of high and sustained economic growth, liberalization of the economy, and opening up of agriculture to international competition;

democratic governments, and strong, proactive and relatively efficient social policies.

This context had four major impacts on small-scale agriculture. First, the liberalization of the economy and the opening up of agriculture to international competition resulted in both 'push' and 'pull' incentives that caused small farmers to diversify away from traditional commodities and into new and more profitable enterprises and more dynamic markets. As Rafael Castro, the farmer quoted at the start of Chapter 1 said, small farmers in Chile were and still are faced with a clear-cut option: "*change or sell the land.*"

Second, the development options available to small farmers are shaped by the broader transformation of the Chilean countryside. Rapid urbanization; the improvement and spread of infrastructure and public services; the emergence of a dynamic for-export agricultural and agroindustrial sector and the concomitant expansion of all sorts of agricultural support services; and the doubling of the area under irrigation not only provided some of the material conditions for transformation in small-scale farming, but also led to a mentality, or a culture, of change and innovation. One would have had to work with small farmers in Chile over the past 15 or 20 years to understand the enormous importance of the changes in outlook and attitudes among so many small farmers.

Third, the high and sustained growth of the economy allowed the government to fund a proactive and expanding social policy and to make a concerted effort to support social and economic sectors that otherwise would have lacked the opportunity to capture some of the potential rewards of liberalization and globalization.

Finally, on a less positive note but not without consequences for our analysis, one cannot forget that the market-oriented small farmers who make up the bulk of EAC membership are the hardened veterans of the intense social and political reforms of the 1960s and early 70s, and the survivors of the extreme neoliberal experiment launched by the military dictatorship in 1973. They have come a long way from their situation only 30 years ago, when they were illiterate, extremely poor and socially and politically marginalized landless peons under the *Hacienda* system.

13.2 Research questions and answers

The study addressed the following questions:

(1) Have EACs achieved their aim of improving the performance of peasant agriculture in the context of a market economy open to international competition?

(2) Are EACs sustainable as economic organizations, or, as has occurred many times in many Latin American countries, are they simply dependent appendices of the public programs that created them?

(3) What changes or adjustments in public policies and their instruments are needed to improve the performance, impacts and sustainability of EACs?

The answers to the first two questions are straightforward and have been presented in detail in Chapters 4, 5, 6 and 7. In summary:

- Public policies coupled with market incentives have stimulated the emergence of around 750 EACs, involving a fifth of all small farmers in Chile. The poorest peasants participate much less in these organizations than the better-off.
- Most new EACs are involved in non-traditional production systems, services and markets.
- The economic impact of EACs on their members' farms depends on the products and markets involved. EACs focused on marketing commodities in the wholesale or spot markets have little economic impact. Those involved in non-traditional products and in markets with high transaction costs can have more of an impact.
- EAC membership does not appear to affect annual household income, regardless of the EAC's

product and market orientation. Gains in on-farm income will generally be compensated for by losses in off-farm employment.

- Around one-third of EACs are economically and financially strong enough to operate as sustainable business-oriented organizations. About a fifth are in good financial shape, and would have a good chance of surviving if public program support suddenly withdrew today. I estimate (without direct hard evidence) that a severe economic and financial crisis is facing most of the EACs whose core business is marketing commodities such as wheat, grain legumes, and potatoes, and up to one-third of the EACs engaged in non-traditional products, services and markets.

I answer the third question in the rest of this chapter.

13.3 Improving the performance, impact and sustainability of EACs

Many lessons and recommendations have emerged from this research, and in particular from the case studies. However, my personal conclusion is that of the many factors that affect an EAC's performance, impact and sustainability, three deserve special attention:[68]

(1) Market, service and product orientation. EACs can be effective vehicles for farmers changing their practices, but not for improving the performance of small-scale agriculture within the traditional realm of commodity production.

(2) Networking. Effective EACs are embedded in effective multi-agent networks.

(3) Rules and incentives. EACs' systems of rules must provide incentives for an adequate allocation of costs and benefits among the members, and between them and the EAC.

I will now discuss each of these in turn.

13.3.1 EACs as vehicles for change

In this study I analyzed - using quantitative methods and through qualitative case studies - a large number of EACs. Both approaches have revealed the following key finding:

EACs formed to improve their members' bargaining position within traditional commodity markets have not been able to improve the performance of their members as small farmers, and also have not achieved the economic and financial viability that would ensure their sustainability as business-oriented organizations in the absence of government loans and subsidies. I estimate that about 36% of Chile's EACs are in this position.

On the other hand, EACs formed to support their members as they diversify into non-traditional products, new marketing arrangements, and/or new value-adding activities, can (although not always) improve the performance of their members' farming systems, and can become viable business-oriented organizations. I estimate that about two-thirds of EACs fall into this category.

Commodity-based EACs

In a market economy open to international competition, EACs cannot improve on regular market exchanges when it comes to trading undifferentiated commodities in spot or wholesale markets. At any given time, prices will correspond to the interplay of supply and demand. The number of buyers and sellers is large enough in these markets to preclude any one of them from having any significant effect on prices. A group of 50 or 100 or 200 small farmers certainly will have more produce to offer

[68] I do not include such obvious factors as honest and competent managers, sound investment projects, business plans which meet at least the minimum standards of professional quality, etc. These business management topics were outside the scope of this study, but I do not want to imply that they are not of great importance in determining the performance, impact and sustainability of EACs.

than a single peasant, but the total amount will continue to be insignificant compared with the total market size. If such a group attempts to negotiate a higher price than the going market price, buyers will simply look elsewhere. Only producers at the cutting edge of technological innovation and whose productivity is higher than average will be able to make a higher profit, but always based on the prevailing price. In an economy open to international competition, those farmers leading the pack may well be in another country.

Furthermore, in this context EACs will certainly incur higher costs than an individual farmer selling his or her crop directly to a trader or middleman. Such costs include: (a) direct and fixed organizational/administrative costs; (b) taxes, especially the Value Added Tax that middlemen usually evade; (c) costs resulting from free riders within the EAC, which we know to be very high. Thus there are no additional rewards to offset the increased costs: this explains why this type of EAC will tend to fail.

There are two 'smoking gun' pieces of evidence that confirm this finding. The first is that farmers who produce commodity crops such as wheat or potatoes have a significantly lower rate of EAC membership. Secondly, those farmers who actually join an EAC to market these products tend to default on their commitment and continue marketing most of their harvest through the traditional channels, despite these channels being universally despised as 'unfair'.

Of course, these organizations can still make a contribution to their members, as long as they engage in services other than marketing undifferentiated commodities. They can provide technical support under contract to INDAP, they can run agricultural machinery services, they can sell agricultural supplies, and, above all, they can use their greater social and political influence to capture a greater share of government loans and subsidies for their members. In short, they could actually succeed if they stopped doing the things they were set up to do (marketing of commodities), or, at the very least, reduce the relative importance of those activities.

EACs as instruments for changes in practice

A number of EACs have been set up to support *changes in practice*, i.e., to help their members diversify into new products, new marketing arrangements, and/or new value-adding activities. The markets in which these EACs operate are characterized by:

- Products differentiated by quality or other grades or standards. This implies transaction costs involved in the identification of the produce to be exchanged, negotiating prices, delivery and payment conditions, and in enforcing agreements with clients. In my study, the raspberries cases are a good example.
- Costly price and market information: accessing such information is expensive, and the lack of such information can have significant repercussions on the actual price obtained. For example, prices for fresh vegetables fluctuate widely even over the space of a few days.
- High market access barriers: due, for example, to the high cost of the equipment, infrastructure or technologies required to participate in the specific market (such as processed goods that require expensive facilities for grading, processing, packaging, storage, and so on); or because of the volume, seasonal supply and delivery conditions imposed by potential clients (such as supermarket chains or the large dairy industries); or because the marketing costs are very high and a high total volume of marketable produce is required to offset them (as for certain fresh vegetables). One should note that what is relevant here is that these are barriers to market access from the point of view of individual small farmers.
- Perishable products: the risk of not selling one's product on a given day is high, so having access to a larger portfolio of clients is key. This is of importance, for example, to fresh vegetable producers, especially when prices are low due to over-supply.

In markets characterized by high transaction costs, EAC membership can lead to a significant

improvement in market access, risk exposure, and price obtained. Furthermore, markets with high transaction costs are no place for a small farmer to be walking alone!

Again, the actual behavior of farmers revealed in my research confirms the theory. In markets with high transaction costs, the rate of EAC membership is significantly higher than the national average, and opportunistic behavior by free riders is much less prevalent.

However, it is important to clarify that engagement in a market with high transaction costs is a necessary but not sufficient condition for the success of an EAC. I estimate that about one-third of the EACs in these markets have failed.

13.3.2 EACs as part of multi-agent networks

Effective EACs are embedded in effective multi-agent networks. This is because linkages to a broader set of actors than those found within rural communities provide vital support for EACs operating in new, more dynamic and competitive markets. These networks include rural communities, markets, government agencies and programs, and intermediate support organizations.

Rural communities

In almost all the cases studied, EAC members participate more in other rural organizations than non-members, and tend to hold leadership positions in these organizations. EACs thus bring together many farmers who are part of "*el activo social*", or the socially-active members of local communities. These individuals are positive about the potential costs and benefits of collective action, making them more likely to join an EAC, and with less hesitation, than others. Their past experience of collective action helps the formation of EACs.

Such experience of collective action among rural communities also leads to the formation of *catalytic community groups*. These are groups comprising more or less the same individuals within a community, which persist over time and 'switch on' or become active when a new collective initiative is needed. When one examines the history of collective action in a community, this same group of people, more or less, pops up time and again. These groups catalyze and organize other community members to participate in new collective efforts.

Such groups give the emerging EACs a broad knowledge base. This might include the norms, attitudes, beliefs, information about the likely behavior of the other participants, organizational principles such as leadership roles, initial sets of rules, and experience in dealing with external agents. Rural communities, through the individuals who make them up and through these catalytic community groups, can accumulate and store such organizational knowledge, even drawing on it years later if necessary.

The existence of these catalytic community groups greatly enhances the emerging EAC's chances of succeeding. Without them, initial leadership is likely to be taken on either by a strong individual or by external agents. These people tend to have a disproportionate influence in an EAC's important formative period when rules are established, roles defined, technologies chosen, staff hired, negotiations occur and agreements are reached with clients, suppliers, and external agencies, and so on.

The case studies illustrate other ways an EAC can benefit from being embedded in its rural community:

- A reduction in the costs of monitoring whether members fulfil their organizational obligations. Social and geographic proximity provide valuable information at low cost to the EAC.
- A reduction in the material heterogeneity of its members, at least according to certain characteristics associated to location. As I will discuss below, greater homogeneity in terms of different variables associated to location makes it easier to enforce rules about the benefits members receive and the costs for which they are liable.

- Social costs which deter members from behaving opportunistically. Relationships between members outside the EAC can be important in deterring people from breaking rules and failing to meet obligations.
- Community knowledge can ensure that fines or sanctions are appropriate and fair. Knowledge of the community helps an EAC to distinguish, for example, unintentional mistakes, behavior resulting from major problems or emergencies within a household, or serious, intentional violations.
- Better member participation in EAC discussions and decision-making processes. When the members are all neighbors, it is easier for them to meet as often as necessary. Discussion and dialogue can take place not only in the formal instances designed for such purpose, but also informally.

For all the case study EACs which were not embedded in a rural community, there were no formal mechanisms which effectively replaced the social exchanges listed above. In these cases there was a very clear communication gap that impeded interaction between the EAC and its members. The members participated less, they were definitely less informed about what was going on in their EAC, there was more room for undetected opportunistic behavior, and it was clearly more difficult to impose sanctions when necessary. This suggests that formal management or organizational procedures and mechanisms (board meetings, hired managers, accounting systems, etc.) can never fully replace the quality of interactions based on social and geographic proximity.

On the other hand, the case studies also yielded some examples of how EACs embedded in a rural community can undermine operational rules. For example, the social and economic power of a single individual within the community led them to dominate an EAC's decision-making process. Also, I often observed how close social relations prevented the EAC from enforcing its rules of sanctions, because of fear of affecting good relations between friends, neighbors or members of the same families. In at least one of the case studies, this sort of 'perverse social capital' largely explains the failure of the EAC.

EACs not only benefit from the rural communities in which they are embedded, but in almost all cases they also contribute to them. A rural community that contains an EAC has acquired a political asset, often enabling investments in drinking water distribution systems, rural electrification projects, repairing and improving roads and small bridges, building meeting houses that are open to many other community organizations and groups, providing access to valuable information obtained through the contact established with government agencies, and so on. Furthermore, EACs very often give non-members access to some of their services, such as marketing their produce.

Markets

An EAC which lacks effective links to specific markets will either collapse from lack of purpose, or will become something other than an EAC, such as a channel for government or intermediate agency funds, taking advantage of the greater political leverage enjoyed by almost any organized group of farmers. Thus *"effective links to specific markets"* implies real exchange of goods and services, and not simple declarations of intent.

An EAC's meaning and purpose is defined by the conditions of a specific market. This shapes members' expectations about EAC membership. Where EACs focus on marketing commodities, members' expectations and objectives cannot be fulfilled. They will rapidly conclude that they will not get the benefits they originally expected. The lack of correspondence between market conditions and the domain of action of the EAC becomes a disincentive, and the members default on their commitments.

When this happens, the organization will usually change its role, but may still keep up the pretence to maintain access to the resources provided by other actors in the network. Examples from the case studies include EACs that become extension firms working under contract to INDAP, a supermarket

owner and operator, or simply an apparatus for improving members' access to various subsidies.

When, on the contrary, there is congruence between the EAC's domain of action and market conditions (as when the organization helps its members access a new market from which they were previously barred), then market signals are an incentive for continued collective action. In a successful EAC, the members will continuously try to improve the congruence between their practice and market conditions. To do so, they adjust and refine their systems of rules. I will return to this later when I discuss the relationship between systems of rules and the economic performance of the EAC.

Government agencies

All of the case studies clearly illustrate the key role of government agencies, especially INDAP. This confirms my hypothesis in Chapter 2 that the 'political opportunity' provided by government through its public policy signals is a prime incentive for EAC formation.

The case studies demonstrate three levels of government involvement in EAC formation:

(1) At one end of the spectrum, a few EACs are basically creatures of government intervention. There is no history of collective action among the individuals involved. The whole process is put in motion only after government agents (or intermediate agencies) make a deliberate effort to set up an EAC. Clearly such an origin leads to quite an artificial organization, largely dependent on the continuous flow of government funds for its survival.

(2) Some of the EACs emerged out of pre-existing local groups or organizations, with a previous history of working within government programs, notably INDAP's extension services. In these cases, the government program transformed the existing group into an EAC. However, in at least three cases, whilst the EAC ended up being ineffective, the original groups (lost or weakened in the process) managed quite well before their government-induced transformation.

(3) Finally, there are five case studies where pre-existing local groups or organizations took the initiative to set up an EAC. Some of them had some contact with government programs in the past, but some had not. In most of these cases, the pre-existing groups had been trying for years to form some sort of formal organization to engage in marketing or value-adding activities. In all cases, the farmers did not know exactly what type of organization they needed, or how to form it, but they did have a more or less well identified problem, and they certainly knew what they wanted to achieve. Eventually, one way or another they managed to 'connect' with sympathetic government officials, usually through an intermediate agent (such as an NGO, an extension agent, a parish priest, or a regional federation of cooperatives), and the EAC was formalized with the support of both government and intermediate agencies.

It is unlikely to be coincidence that the latter five EACs were most successful in extracting precisely what they wanted from public programs, or in defining with greater autonomy how they would run their organizations. This does not mean that all have been successful, for we have seen at least two of them (We Tukucan and Romefrut) run into great difficulties precisely because their notorious 'drive', fuelled by their own accomplishments, encouraged an unsustainable rate of growth. Neither does it mean that the second type of EAC cannot manage to become rather successful business-oriented organizations.

In my cases there was no correlation between the autonomy of the original groups and their success as sustainable EACs, except for the extreme case of those that were artificial creatures of government programs.

After the organization forms, its relationship with government agencies is conditioned by how successful the EAC *appears* to be. Those case study EACs which did not quickly show clear signs of success, soon fell into the protective embrace of the government agency and lost much of their autonomy. The reason is clear: once a government agency and its officials have invested in an EAC, they will do anything to prevent it from going under, for they are not willing to pay the political cost of failure. This occurs even when the EAC's failure cannot reasonably be attributed to a mistake or

omission by the government agency.

This is a major problem for two important reasons:

(1) At the first visible sign of trouble government agencies will react by, in effect, externalizing at least some of the costs out of the EAC. They do so by providing implicit or explicit subsidies, either to the EAC itself or to the members at the farm level, or to both. Inevitably, this decouples the EAC from its market context, and eventually distorts incentives and rules and disguises market signals. This sort of 'salvage' operation leads to a vicious cycle: the externalization of costs and risk decouples the EAC from market signals and trends, incentives and rules are altered accordingly, the negative results are enhanced, more subsidies are poured into the EAC, its disconnection from market realities increases, and so on. The dozens of EACs facing financial crises in the past two years were the ultimate outcome of this distortion in the nature of the relationship between these organizations and government programs.

(2) The government's response to EACs in trouble means that it is impossible to bring problems out into the open for analysis and discussion. Such analysis would help negotiate more lasting solutions than simply pumping millions into keeping them alive, and would also allow people to learn from the mistakes that may have been made.

The gradual development of each EAC, as well as the progressive improvement of public policies and support programs, requires concerted social learning. This 'reflex reaction' by government agencies is a very serious stumbling block for processes of social learning and the adaptive management of these kinds of soft systems.

Intermediate agencies

In my conceptual framework (Chapter 2) I highlighted the role of intermediate agencies (NGOs, extension firms, etc.) in building linkages between the actors who form part of the EACs' networks. I also explained that these agencies provide organizational models and expertise to give shape and content to emerging EACs. These roles reduce the actual and perceived costs and risks to farmers when starting up an EAC, and increase their chances of success.

In all the case studies, intermediate agencies were important facilitators of EAC formation. This is true even of those pre-existing local groups or organizations who took the initiative to set up an EAC. While these proactive local groups had developed their own notion of why they wanted to change the *status quo*, and despite having some idea of the type of activities in which they would like to engage and their objectives, it was not until they linked to an intermediate agency that they were able to get going. This was because of the models, expertise and contacts provided by the external facilitators.

While being good catalysts of EAC formation, these intermediate agencies are often less capable of supporting the actual implementation and consolidation of the organizations and their business-oriented project. Why is this?

In June 2001, I interviewed Mr. Luis Marambio, National Director of INDAP from 1994 to 2000. Looking back, he acknowledged that one important limitation of this government agency had been its inability to improve the human capital surrounding the organizations. He stated: *"We assumed that we could hire the necessary professional services. We were wrong. Those top-quality professionals very often were simply not available to work with small farmers, often in remote areas."*

The existing intermediate agencies and facilitators are basically the same ones that had been accustomed to working within the linear transfer of technology paradigm. Their outlook was one of delivering ready-made options and solutions to well defined problems and constraints, mainly in the domain of production technology.

But the courses of action for the new EACs can no longer be defined in terms of standardized pathways towards pre-conceived 'optimum' outcomes. The new strategy requires a new set of skills, information and knowledge to facilitate communication between different stakeholders operating from

different perspectives, and to negotiate agreements for concerted action, almost always within very dynamic and uncertain contexts.

The technical problems which need to be solved are also fundamentally different from the old focus on raising traditional commodity crop yields. Many intermediate agents and advisors simply lack sufficient expertise and experience in producing high-value products, marketing, management and processing for value-adding.

These problems were sometimes compounded by some EACs insisting on taking over the delivery of technical assistance, thereby displacing the intermediate agencies. Sometimes this resulted in more pertinent and more focused support and advice, and in better coordination between support to the production, marketing and value-adding parts of the process. But very often it weakened the technical quality of the support services, in particular when some EACs diverted part of the funds available for technical support to help cover their other costs and investments.

Some of the EACs have made much progress in learning how to relate to the world of technology and professional advice. They avoid contracts which do not have very clear objectives, time frames, and indicators of progress and results. They talk and negotiate with a larger number of potential advisors before choosing the most appropriate, often visiting other communities where they have worked to obtain information on their performance. They prefer to sign specific contracts with a diverse number of specialists, as opposed to hiring one single agency to provide all the forms of advice they need.

13.3.3 EACs with coherent systems of rules

As discussed in Chapter 2, collective organizations require systems of rules to constrain the types of opportunistic behavior described by the *"tragedy of the commons"* and the Prisoner's Dilemma metaphors. These theories of collective action are focused primarily on the question of how costs and benefits are allocated *between the individual participants* in the collective action effort.

The case studies underline that the presence of such systems of rules dictates effective collective action within EACs. These rules permit EAC members to construct agreements for concerted action that they deem fair and legitimate; to create incentives for the members to comply with their rules; and to adjust their rules and agreements according to circumstances. Without such systems, opportunistic behavior prevails and collective action is undermined.

However, one aspect is particularly important for EACs. Effective systems of rules need not only to address the allocation of costs and benefits between the individual members, but also and *simultaneously*, the allocation of contributions and appropriations between the members as independent farmers, and the EAC as a business-oriented organization. The balance between the EAC's economic and financial performance and sustainability on the one hand, and the impacts of the collective effort on individual farms and households, on the other, depends on how this allocation problem is solved.

In each transaction between the EAC and its members, there is a trade-off between the interests of individuals as independent farmers, and those of the EAC itself. In each transaction the EAC could enhance its own performance by limiting the returns to individual members or by transferring a larger share of the costs incurred to them. Similarly, members could profit more by making the EAC shoulder more of the costs, or by privately extracting a greater proportion of the benefits.

As discussed earlier, if an EAC's activities are not dictated by market conditions, most members will turn their backs on collective action, or else the organization will become, in practice, something other than an EAC. This is the case for EACs marketing undifferentiated commodities in the spot and wholesale markets. They fail to achieve either one of their declared goals: becoming a viable business-oriented organization, or improving the conditions of their members as independent farmers.

EACs involved in markets characterized by high transaction costs can address the allocation of costs and benefits through systems of rules which:

(1) Transmit undistorted market signals directly to each member. This means that the costs and benefits to each member are directly related to his or her farming performance and to market conditions. Thus rules must prevent costs or benefits being spread among EAC members. In terms of Ostrom's (1990) design principles, the key is to ensure congruence between rules defining benefits and costs to members with those relating to market conditions. If this does not occur, then the EAC shoulders the difference between the farmer's performance and market conditions, and/or the rest of the members carry the costs.

(2) Reduce the transaction costs of negotiating, monitoring, and enforcing agreements between the EAC and its members. If these costs are high, then the EAC and its members will have to choose between affecting the organization's income or reducing members' profits.

Five of the 14 case study EACs (for milk, vegetables and raspberries, but not potatoes) achieved this tricky balance because of their:

- Previous history of significant collective action involving many of the members. The formation of these EACs was just another step along a longer road of concerted action. These groups had the advantage of a significant stock of organizational expertise. They had learned to work together. They had rules, norms, tested leaders, and knowledge about how others were likely to behave in collective activities. Through past experiences they had often already weeded out those individuals who were not group players.
- Similar farming capacities among members. If members do not have more or less equal production potential it is extremely difficult for them to negotiate provision and appropriation rules that can be met by all. Of course, in these five EACs there were differences among the members, but these were less significant than in other cases. It was thus easier for them to reach agreements acceptable to all, and to fulfil their obligations once they had done so.
- Clear links to the local rural community. As discussed before, the geographic and social proximity of members helped their dealings within the organization, and were vitally important for reducing the cost of obtaining information, negotiating agreements through frequent and frank dialogue, monitoring compliance with the rules, enforcing graduated and fair sanctions, solving conflicts, and adjusting the rules and agreements as circumstances changed.
- Lack of exit options. To put it bluntly, for all the EACs who solved the problem of dual allocation of costs and benefits, the members had no other affordable options other than EAC membership. They *had* to sustain their organization, any alternative approaches were unacceptable. Losing the EAC would mean either being left out of the market (as in the case of the Milk Collection Centers), or at least having to cut back significantly on their scale of production (as in the cases of raspberries and fresh vegetables). This position forced members to accept lower benefits, or even accommodate some losses when the market was unfavorable or when the EAC made a bad business decision.
- Capacity to learn and adapt. A striking feature of these five EACs was their detailed knowledge about their position vis-à-vis market conditions and trends and especially their capacity to turn that information into clear plans for future action. Put simply, they knew where they were, where they wanted to go to remain competitive, and what they needed to do to get there, both at the level of the EAC and of the individual farms. This information and knowledge was used to refine and update their rules, their priorities and their investment plans whenever necessary. With the support of their advisors, they had developed a remarkable capacity to use their knowledge to inform action.

13.4 Thinking about the future

Over the past two years or so, it is becoming clear that hundreds of EACs are experiencing major

economic and financial problems, to the extent that many are unlikely to survive.

This has led some to question the very notion of small farmers engaging collectively in new products, services and markets. To them, the failure of so many EACs proves that small farmers lack the skills to participate in complex production systems and very competitive markets. To them, the main hope for small-scale agriculture lies in the adoption of a protective and interventionist economic policy in the agricultural sector to reduce unfair competition from heavily subsidized agriculture in the North, and to stabilize internal prices and production levels.

Others argue that the failure of these EACs is due to the involvement of government agencies in providing technical and financial support to small farmers. This support will inevitably degenerate into clientelistic, politically-motivated, power-seeking machines. In this view, EACs have failed because they were never intended to be *bona fide* business-oriented organizations. The appropriate response in this view would include such measures as targeting only those small farmers who are 'viable', and terminating government-managed financial support systems, leaving it to commercial banks to carry out this function.

In my view, putting the debate in these terms of 'state or market' is not very helpful. Instead, I want to stress that we need to take advantage of the fact that today we can learn from actual experience. This is where the social energies of all those who are genuinely committed to a society that includes small farmers should be concentrated. This must be the most valuable point of departure for rethinking public policies to support small-scale agriculture in the years to come.

I believe that the public policy agenda defined in the mid-90s has run its course. If in the past decade our immediate goal was to facilitate and support the formation and development of as many EACs as possible, in the coming years we need to emphasize improving the quality of these organizations, so that they become: (a) effective in improving the performance of their members as independent farmers in a market economy, (b) increasingly sustainable as business firms, and, (c) institutionally robust as social platforms for collective action.

We could make much progress towards these goals by engaging in open and constructive debate on the following issues:

1. Alternatives for smallholders engaged in the production of traditional agricultural commodities

This study has clearly shown the futility of setting up EACs to improving the position of small farmers as producers of raw agricultural commodities. Yet, only a fraction of Chilean small farmers are able to diversify into new products and markets. We have an enormous challenge to discover different development alternatives for those households who are unlikely to make this transition.

What are the alternatives for those smallholders who cannot gain access to new products, new markets, new value-adding activities? How can these alternatives be promoted, and by whom? And, perhaps, most importantly, how do public programs define targeting criteria and procedures which avoid discriminating against certain categories of smallholders, based simply on the personal biases and preferences of decision-makers in government offices.

If we continue to narrowly focus rural development on agriculture-based options, instead of aiming for a more broad-based approach to rural regions, we will fail to provide clear alternatives to those who cannot link to profitable agricultural markets. The political pressures to continue setting up ineffective EACs will be irresistible.

2. Conditions that justify an EAC

We must not always assume that having an EAC is always preferable to not having one. Public policies and programs over the past six or seven years have - implicitly at least - identified EACs as the desired outcome of any development initiative. Often, creating an EAC was an indicator of development progress; not forming such an organization was a sign of stagnation, or of outright failure, to the extent that if a local group had not set up an EAC in two or three years, technical advice services were supposed to be discontinued. We have seen the perverse incentives created by these

policy decisions, and how they often led to the formation of weak and even lifeless EACs.

The strengthening of rural civil society, or even of rural economic organizations, should not be a one-lane highway. We need to devise policies and programs to support a broad diversity of rural groups, associations and organizations. Not all the objectives or needs of rural populations or of small farmers can or should be addressed through EACs.

EACs are only appropriate instruments for change and development when the following conditions are met:

(a) Members' goals are clearly market-oriented.

EACs are organizations for market exchange. If members mainly expect to gain access to public support programs; to improve public services and infrastructure; or to represent the corporate interests of a group or community before government or society at large; then EACs are *not* the way to go, and public policies and programs should support the formation of other, more appropriate types of organizations.

(b) Markets fail to provide the goods and services required by the members to achieve their goals.

Even when members' goals are market-oriented, one should not automatically assume that an EAC is the best or only way forward. In a sense, given the costs and risks involved in setting up an EAC, this should be a last resort option, not the first one in the list of development agencies or farmer groups.

Certain types of market exchange can be most successful if individuals engage other market agents on their own. If a farmer wants to sell his or her wheat crop, it is unlikely that he or she could do better than selling it to the local mill. This fact is not going to be altered significantly even if 50 or 100 small farmers sell their crop collectively.

EACs are needed when farmers' marketing objectives involve high transaction costs. An institution can reduce or offset such costs, by gaining access to the goods and services that the market alone will not deliver. If farmers do not get together, the market will not deliver cooling tanks for their milk; they will not have access to expert advice on processing and exporting raspberries; they will not gain a contract to deliver potatoes to a supermarket; the market will not deliver the long-term financing needed to set up a vegetable packing and storage facility.

Often such activities require the existence of a formal organization, i.e, a legal entity recognized as such by other market and non-market agents. This allows the group to enter into valid and enforceable agreements and contracts. This is when an EAC becomes indispensable.

3. Effective and sustainable EACs are the product of social learning processes

We have made much progress in Chile in moving away from the linear transfer of technology mentality. However, we still have a long way to go in developing a widely-agreed alternative approach. In other words, we are much more aware of how not do things because we have seen what does not work. But we are less clear about how we should do things differently.

In my view, an alternative approach to developing more effective and sustainable EACs should be built around the concept of social learning. I think that this study has shown that effective and sustainable EACs are not the product of pre-conceived social engineering initiatives, in which 'someone' illuminates a group of farmers with the knowledge and skills they lack and which, once adopted, automatically produce a successful business-oriented organization.

Instead, the development of effective and sustainable EACs involves:

- communicating and negotiating across several public-private and private-social divides, and between different stakeholders, each with their own interests and own perspectives about what needs to be done;
- negotiating difficult trade-offs between different actors, different objectives, and different courses of action;

- building networks linking EACs with individual farms, rural communities, government agencies, markets and intermediate support organizations;
- developing a shared understanding of the gaps between initial expectations and actual outcomes of the collective action effort;
- finding meaningful and constructive common ground between the expertise and skills of the technical, management and business specialists, and the logic of peasant economies;
- ensuring access by EAC members, leaders, staff and advisors to the information, knowledge and skills required to support effective decision-making;
- creating an ability to deal with change and a capacity to read and react to unexpected and surprising events;
- developing a capacity to probe, experiment and monitor processes, performance and outcomes;
- finding methods to embed the results of all of the above into new knowledge that can inform further action.

And then we need to scale-up this learning process, to continuously adapt the design and implementation of the public policies and programs which support EAC development.

None of this is happening in any systematic way today in Chile, and we are thus missing a tremendous opportunity to improve our work both at the level of each EAC and of the pertinent public policies and programs.

I feel strongly that if we are going to make further progress in developing more effective and sustainable EACs, we must embark on a very significant campaign of *learning to learn*. We need to invest heavily in becoming equipped with the concepts, methods and tools for facilitating social learning processes for EACs. This is the only way forward. Otherwise the whole process will be coopted by those who think that the solution is to put good business managers in charge, just as before they thought that a well-organized extensionist with the support of a good 'subject matter specialist', could conquer all technical problems and get small farmers up to par.

4. Investing in human capital

Social learning is not contradictory, nor can it replace well-designed, strong and comprehensive training programs directed at EAC members, leaders and staff, as well as the staff of intermediate support organizations, and of the government agencies responsible for the policies and programs which support of small-scale organizations.

EACs place small farmers and those who work with them in new contexts. We must not let an EAC reach crisis point before its leaders and members learn about the importance of good accounting systems; or the practical consequences of the difference between a firm's cash flow and the net result of a business operation; or why the notion of depreciation of fixed assets was invented in the first place. We cannot expect technical advisors to stop talking about weed control in wheat and start emphasizing cut-flower production if we do not give them access to the best possible knowledge and expertise in these new areas. We should not ask small farmers to collectively take out a loan for hundreds of thousands of dollars if we cannot be sure that the project has been evaluated according to the most rigorous technical standards. We cannot seriously talk about building robust sets of operational rules within the organizations if we do not prepare farmers, their leaders and advisors, with the skills necessary to facilitate good communication processes. It is difficult to think how we can build the types of networks that EACs need to perform well, if we lack the methods and instruments to negotiate concerted action between multiple stakeholders with their own perspectives.

The effort to develop the human capital in and around EACs has been negligible compared to the hundreds of millions of dollars invested in 'brick and mortar' projects. We must debate very seriously the wisdom of this approach, and start thinking about more appropriate ways to make up for the time lost in providing all these actors in and around EACs with the knowledge, capacities, and skills that

are indispensable in their new domains of activity.

5. Thinking and acting in terms of networks

More work is needed to not only understand and learn how to work with EACs, but with EACs in the context of multi-agent networks.

Too often the other participants in the network are treated as parameters external to the EAC development initiative. For example, we can invest thousands of dollars in financial and technical support to the EAC itself, whilst lessening support to members' farms; this gives the EAC the impossible task of adding value to and marketing low quality and expensive products. Or we encourage EACs to venture into very competitive and demanding markets, without considering whether the intermediate support organizations actually have the expertise required to provide meaningful advice in the new market context. Or we encourage an EAC to enter into contracts with a powerful supermarket chain, but fail to analyze in time what the new standards and conditions will mean in terms of demands for new technologies and new investments, new forms of technical advice, and a radically new demand on the EAC's cash flow, all of which require changes in the organization's operational rules. Or we form an EAC in a social setting were there is no evidence of any previous history of collective action.

All of these are actual examples, taken from the case studies, of how in practice we have not been very good at looking at EACs as elements of multi-agent networks. Again, the need is for a concerted effort to invest in the development of the concepts, methods and tools that will enable us to become more aware and adept at working within a network perspective.

6. EACs transmit market signals

EACs are set up with the explicit purpose of providing an organizational platform for small farmers to reach more dynamic and profitable markets. Almost always this means that they will be subject to more, not less, intense competition. A peasant selling his or her raspberries to the traditional middlemen, may not make as much money as he or she could, but he or she will almost always manage to sell the crop, no questions asked; but if the EAC wants to get into the export market, then it better be prepared to do what it takes to avoid being torn apart by much tougher competitors. EACs cannot have it both ways, then cannot have their cake and eat it too!

Understandably, public programs which support small farmers want to somehow protect them from the adverse consequences of getting into these fiercely competitive markets. This is not the issue. It would be foolhardy to design a public policy that does not contain mechanisms to ease the transition. The question is how do we do it? Until now, the knee-jerk reaction has been to make use of subsidized loans and direct grants that decouple EACs from market signals. I think that this study provides abundant evidence that, as many farmers told me, this is "*pan para hoy, hambre para mañana*" (bread for today, hunger tomorrow).

We need to develop more appropriate, conducive and, above all, *sustainable* instruments for easing small farmers' transition into more competitive markets. What are the insurance systems, the risk-sharing public-private contracts, the financial instruments, the forms of technical support, the training programs, the government regulations, the fiscal incentives, the legal frameworks, that can simultaneously help small farmers and their EACs learn their way around the new markets, whilst not creating artificial 'bubbles' which burst the day external funding stops? I don't have the answer to this question, but it is one that we need to address seriously and urgently.

If we do not find good answers to this question, all our calls for government agencies and intermediate support organizations to stop behaving paternalistically towards small farmers, will fall on deaf ears.

13.5 Final thought

To reiterate, the greatest asset we have for improving the public policies which support small-scale

agriculture is the experience of the thousands of farmers, their organizations and their public and private advisors and supporters. The results have not been as good as we expected in the mid-90s when we were just getting started, but they rarely are when the changes introduced are meaningful and depart from well-travelled paths. But if we dare to take a hard, critical look at what has been done, and *to think and act with freedom*, then I am sure that many Chilean small farmers and rural communities will be able to secure a place in their society, one of which they will be proud of. To those who think that this is naive, I can only say: they have done it before.

REFERENCES

Amat, O. 1998. *Comprender la Contabilidad y las Finanzas*. Ediciones Gestión 2000. Barcelona, Spain.

Argyris, C. 1992. *On Organizational Learning*. Oxford, Blackwell. 450pp.

Axelrod, R. and Cohen, MD. 1999. *Harnessing Complexity. Organizational implications of a scientific frontier.* The Free Press. New York.

Bardhan, P. 1993. Analytics of the institutions of informal cooperation in rural development. *World Development* 21 (4): 633-639.

Bardhan, P. 1989a. Alternative approaches to the theory of institutions in economic development. In: P. Bardhan (Ed.). *The Economic Theory of Agrarian Institutions*. Clarendon Press, Oxford, UK.

Bardhan, P. (Ed.)1989b. *The Economic Theory of Agrarian Institutions*. Clarendon Press, Oxford, UK.

Bates, RH. 1987. *Essays on the Political Economy of Rural Africa*. Berkeley, University of California Press.

Bebbington, A. 2001. Globalized Andes? Landscapes and livelihoods in the Andes. *Ecumene: A journal of cultural geography* 8 (4): 414-436.

Bebbington, A. 1999. Capitals and capabilities: a framework for analyzing peasant viability, rural livelihoods and poverty in the Andes. *World Development* 27 (12): 2021-2044.

Bebbington, A. 1997. Social capital and rural intensification: local organizations and islands of sustainability in the rural Andes. *Geographical Journal* 163 (2): 189-197.

Bebbington, A. 1996. Organizations and intensifications: small farmer federations, rural livelihoods and agricultural technology in the Andes and Amazonia. *World Development* 24 (7): 1161-1178.

Berdegué, JA. 1999. Documento de síntesis de la VI Conferencia Electrónica de FIDAMERICA *"De cara a la globalización: Organizaciones Económicas Rurales en América Latina y el Caribe"*. www.fidamerica.cl/actividades/conferencias/oec/finaloec.html

Berdegué JA. 1998. Organisation of agricultural extension and advisory services for small farmers in selected Latin American countries. In: F. Dolberg and Poul Henning Petersen (eds.) *Maximizing the Influence of the User: Alternatives to the Training and Visit system.* Tune, Denmark: The Danish Agricultural and Rural Development Advisers Forum.

Berdegué, JA., Ramírez, E., Reardon, T., and Escobar, G. 2001. Rural nonfarm employment and income in Chile. *World Development* 29 (3): 411-425.

Berdegué JA., and Marchant C. 2000. *Chile's Agricultural Advisory Services for Small Farmers, 1978-2000*. Unpublished manuscript.

Berdegué, JA. and Escobar, G. 1997. Markets and modernisation: new directions for Latin American peasant agriculture. *Gatekeeper Series* N° 67. International Institute for Environment and Development, London.

Buck, SJ. 1998. *The Global Commons. An Introduction*. Island Press. Washington, D.C.

Calas, M. and Smircich, L. 1991. Voicing sedition to silence leadership. *Organization Studies* 12(4): 567-601.

Carletto, C., de Janvry, A., and Sadoulet, E. 1999. Sustainability in the diffusion of innovations: smallholder nontraditional agro-exports in Guatemala. *Economic Development and Cultural Change* 47 (2) 345-369.

CEPAL. 1984. *Economía Campesina y Agricultura Empresarial.* Editorial Siglo XXI. México. Comisión Económica de las Naciones Unidas Para América Latina (CEPAL), Santiago.

CIOEC-B. 2000. *Agenda para el Desarrollo Estratégico de las Organizaciones Económicas Campesinas.* Unpublished manuscript. Comité Integrador de Organizaciones Económicas Campesinas de Bolivia (CIOEC-B), La Paz, Bolivia.

Cochrane, W. 1979. *The Development of American Agriculture: A Historical Analysis.* University of Minnesota Press, Minneapolis.

Cochrane, W. 1958. *Farm Prices, Myth and Reality.* University of Minnesota Press, Minneapolis.

Cohen, D., and Prusak, L. 2001. *In Good Company. How social capital makes organizations work*. Harvard Business School Press. Boston.

Coleman, J. 1988. Social capital in the creation of human capital. *American Journal of Sociology* 94 (Supplement): S95 - S120.

Dawes, R.M. 1973. The commons dilemma game: an n-person mixed-motive game with a dominating strategy for defection. *ORI Research Bulletin* 13: 1-12

De Janvry, A. and Sadoulet, E. 2001. Pobreza rural y diseño de estrategias efectivas de desarrollo rural. In: Clemens, H., and Ruben, R. 2001. (Eds). *Nueva Ruralidad y Política Agraria. Nueva Sociedad*, Caracas, Venezuela.

De Janvry, A., and Sadoulet, E. 1998. Smallholder integration into markets: determinants of entry and supply response. Paper presented at the Tercer Simposio Latinoamericano sobre Investigación y Extensión en Sistemas Agropecuarios (IESA.AL III), *Nuevos Enfoques para la Superación de la Pobreza Rural y para el Desarrollo de las Capacidades Locales*., Lima, Peru.

De Janvry, A, Fafchamps, M. and Sadoulet, E. 1991. Peasant household behavior with missing markets. Some paradoxes explained. *The Economic Journal* 101(409).

De Janvry, A., Sadoulet, E. and Fafchamps, M. 1989. Agrarian structure, technological innovations and the State. In: Bardhan, P. 1989. (Ed.). *The Economic Theory of Agrarian Institutions.* Clarendon Press, Oxford, UK

Echenique, J. 2000. Análisis prospectivo de la agricultura chilena. In: ODEPA. 2000. *La Agricultura Chilena del 2010*. Office of Agrarian Studies and Policies, Ministry of Agriculture (ODEPA), Santiago, Chile.

Escobar, G. and Berdegué, JA. (Eds). 1990. *Tipificación de Sistemas Agrícolas.* RIMISP. Santiago.

Evans, P. 1996. Government action, social capital and development: reviewing the evidence on synergy. *World Development* 24 (6): 1033-1037.

Fafchamps, M. 1992. Solidarity networks in preindustrial societies: rational peasants with a moral economy. *Economic Development and Cultural Change* 41 (1): 147-174.

Fox, J. 1996. How does civil society thicken? The political construction of social capital in rural Mexico. *World Development* 24 (6) 1089-1103.

FUNDES. 2001. *Evaluación del Estado Económico-Financiero de Empresas Asociativas Campesinas (EAC).* Informe Final. Unpublished manuscript. FUNDES, Chile.

Gómez, S. 2001. *Organización Campesina en Chile: Reflexiones sobre su debilidad actual.* Unpublished manuscript.

Gordillo, G. 1999. Social mobilisation as means of production. Paper presented at the VI FIDAMERICA Electronic Conference: *De cara a la globalización: Organizaciones Económicas Rurales en América Latina y el Caribe*. http://www.fidamerica.cl/actividades/conferencias/oec/gording.html

Hardin G. 1968. The tragedy of the commons. *Science* 162: 1243-1248.

Hardin R. 1982. *Collective Action.* The John Hopkins University Press, Baltimore. 248 pp.

Heckman, J. 1979. Sample selection bias as a specification error. *Econometrica* 47 (1): 153-162Hirschman A. 1984. *Getting Ahead Collectively: Grassroots experiences in Latin America*. New York: Pergamon Press.

Holloway, G., Nicholson, C., Delgado, C., Staal, S., and Ehui, S. 2000. Agroindustrialization through institutional innovation. Transaction costs, cooperatives and milk market development in the east African highlands. *Agricultural Economics* 23: 279-288.

Hubert, B., Ison, RL., and Röling, N. 2000. The 'problematique' with respect to industrialised-country agricultures. In: LEARN Group (editors). *Cow Up a Tree. Knowing and learning for change in agriculture. Case studies from industrialised countries*. INRA, Paris.

IFCN. 2000. *La Competitividad en Producción Lechero de los Países de Chile, Argentina, Uruguay y Brasil. Reporte final*. Unpublished manuscript. International Farm Comparison Network.

INDAP. 1995. *Memoria Anual 1995.* Agricultural Development Institute (INDAP), Santiago, Chile.

INDAP. 1994. *Memoria Anual 1994*. Agricultural Development Institute (INDAP), Santiago, Chile.

INDAP. 1992. *Memoria Anual 1992*. Agricultural Development Institute (INDAP), Santiago, Chile.

Jofré, H. and Monje, R. 2001. *Informe a un Año y Medio de Funcionamiento del Programa de Aseguramiento de la Calidad Higiénica de Leche Cruda.* INDAP X Región, Puerto Montt, Chile. Unpublished manuscript.

LEARN Group (Editors). 2000. *Cow Up a Tree. Knowing and learning for change in agriculture. Case studies from industrialised countries.* INRA Editions, Paris.

Levi, M. 1988. *Of Rule and Revenue.* Berkeley, University of California Press.

López, R. 1996. Determinantes de la pobreza rural en Chile: Programas públicos de extensión y crédito, y otros factores. *Cuadernos de Economía* 33 (100) pp: 321-343.

Lyon, F. 2000. Trust, networks and norms: the creation of social capital in agricultural economies in Ghana. *World Development* 28 (4): 663-681.

MIDEPLAN, 1999. Pobreza Rural en Chile. Documentos Regionales N° 48. Ministry of Planning and Cooperation (MIDEPLAN), Santiago, Chile. Nagengast, C. and Kearney, M. 1990. Mixed ethnicity: social identity, political consciousness and political activism. *Latin American Research Review* 25 (2): 61-91.

Ministerio de Economía and Ministerio de Agricultura. 1998. *Evaluación de Instrumentos de Fomento Productivo. Programa de Transferencia Tecnológica del Instituto de Desarrollo Agropecuario. Informe Final.* Comité Interministerial de Desarrollo Productivo, Santiago, Chile.

Nestlé Chile S.A, 1999. El proveedor de hoy. *Boletín Nestlé* 19 (57): 3-4.

Nonaka, I., and Takeuchi, H. 1995. *The Knowledge Creating Organization*. Oxford University Press. New York.

North, DC. 1996. Economic performance through time. Prize Lecture in Economic Science in Memory of Alfred Nobel, December 9, 1993. In: Alston, L. Eggertsson, T., and North, DC. (Eds.). *Empirical Studies in Institutional Change*. Cambridge University Press, Cambridge.

North, D. 1990. *Institutions, Institutional Change and Economic Performance.* New York, Cambridge University Press.

Nugent, JB. 1993. Between state, markets and households: a neoinstitutional analysis of local organizations and institutions. *World Development* 21(4): 623-632

ODEPA. 2001. *Boletín de la Leche, Año 2000*. Office of Agrarian Studies and Policies, Ministry of Agriculture (ODEPA), Santiago, Chile.

ODEPA. 2000. Clasificación de las explotaciones agrícolas del VI Censo Nacional Agropecuario según tipo de productor y localización geográfica. *Documento de Trabajo* N° 5. Office of Agrarian Studies and Policies, Ministry of Agriculture (ODEPA), Santiago, Chile.

Olson, M. 1965. *The Logic of Collective Action. Public goods and the theory of groups*. Cambridge, Mass., Harvard University Press.

Ostrom, E. 1999. Design principles and threat to sustainable organizations that manage commons. Paper presented at the VI FIDAMERICA Electronic Conference *De Cara a la Globalización: Organizaciones económicas rurales en América Latina y el Caribe*.
http://www.fidamerica.cl/actividades/conferencias/oec/ostroing.html.

Ostrom, E. 1996. Crossing the great divide: coproduction, synergy, and development. *World Development* 24 (6) 1073-1087.

Ostrom, E. 1992. Community and the endogenous solution of common problems. *Journal of Theoretical Politics* 4 (3): 343-352

Ostrom, E. 1990. *Governing the Commons: The evolution of institutions for collective action*. Cambridge: Cambridge University Press.

Ostrom, E., Gardner, R. and Walker, J. 1994a. *Rules, Games and Common-pool resources.* Ann Arbor MI, University of Michigan Press.

Ostrom, E, Wai Fung Lam and Myunsguk Lee, 1994b. The performance of self-governing irrigation systems in Nepal. Human Systems Management 13 (3): 197-207.

Ostrom, E., Schroeder, L., and Wynne, S. 1993. *Institutional Incentives and Sustainable Development. Infrastructure Policies in Perspective.* Westview Press. Boulder, Colorado.

Petit, M. 2000. Cow Up a Tree. A critical assessment. In: LEARN Group (Eds.). *Cow Up a Tree. Knowing and learning for change in agriculture. Case studies from industrialised countries.* INRA Editions, Paris.

Portes, A., and Landolt. 1996. The downsize of social capital. *The American Prospect* 26: 18-21.

Putnam, R. 1993. The prosperous community: Social capital and public life. *The American Prospect* 13: 35-42.

Ramírez, E., Berdegué, JA., Caro, JC. and Frigolet, D. 2001. *Estrategias de Generación de Ingresos de Hogares Rurales en Zonas de Concentración de Pobreza Entre 1996 y 2000*. Unpublished manuscript.

Reardon, T., Berdegué JA., and Escobar, G. 2001. Rural nonfarm employment and income in Latin America. Overview and policy implications. *World Development* 29 (3): 395-409.

Röling, N. 2000. *Gateway to The Global Garden: Beta/Gamma science for dealing with ecological rationality.* Eighth Annual Hopper Lecture, October 24, 2000, University of Guelph, Guelph, Ontario, Canada.

Röling, N. 1988. *Extension Science.* Cambridge University Press, Cambridge.

Röling N., and Engel P. 1991. The development of the concept of Agricultural Knowledge and Information Systems (AKIS): implications for extension. In: Rivera W., and Gustafson, D. (Eds.). *Agricultural Extension: Worldwide evolution and forces for change.* Amsterdam, Elsevier Science Publishers.

Röling, N., Jiggins, J., and Leeuwis, C. 1998. *Treadmill Success and Failure: The challenge for FSR/E.* Proceedings of the 15th International Symposium of the Association for Farming Systems Research and Extension (AFSRE), Volume 2, p. 860-66. AFSRE, Pretoria, South Africa.

Röling, N., and Jiggins, J. 1998. The ecological knowledge system. In: Röling, N. and Wagemakers, MAE. (Eds.). *Facilitating Sustainable Agriculture.* Cambridge University Press. Cambridge, UK.

Ruben, R. 1997. *Making Cooperatives Work. Contact Choice and Resource Management within Land Reform Cooperatives in Honduras*. PhD Thesis, Vrije Universiteit, The Netherlands.

Rubio, M. 1997. Perverse social capital: some evidence from Colombia. *Journal of Economic Issues* 31 (3): 805-816.

Sexton, R. and Iskow, J. 1988. Factors critical to the success or failure of emerging agricultural cooperatives. *Giannini Foundation Information Series* N° 88-3. Giannini Foundation of Agricultural Economics, University of California, Berkeley.

Stake, RE. 1994. Case studies. In: Denzin, NK. and Lincoln, YS. 1994. *Handbook of Qualitative Research.* SAGE Publications, Thousand Oaks, California.

Stiglitz, JE. 1989. Rational peasants, efficient institutions and a theory of rural organizations: methodological remarks for development economics. In: P. Bardhan (Ed.) *The Economic Theory of Agrarian Institutions.* Clarendon Press, Oxford, UK.

Stiglitz, JE. 1986. The new development economics. *World Development* 14: 257-65.

Stoneman, P. and Ireland, N. 1983. Technological diffusion, expectations and welfare. *Oxford Economic Papers* 38: 283-304.

Sugden R. 1984. Reciprocity: The supply of public goods through voluntary contributions. *The Economic Journal* 94: 772-787.

Sunding D. and Zilberman, D. 2001. The agricultural innovation process: research and technology adoption in a changing agricultural sector. In: Gardener BL. and Rausser, GC. (Eds). *Handbook of Agricultural Economics, Volume 1A: Agricultural Production.* North-Holland.

Tarrow, S. 1994. *Power in Movement: Social movements, collective action and politics*. Cambridge, Cambridge University Press.

Taylor, M. 1982. *Community, Anarchy and Liberty.* New York, Cambridge University Press.

Tendler, J. 1993. *New Lessons From Old Projects: The workings of rural development in Northeast Brazil*. A World Bank Operations Evaluation Study. Washington DC: The World Bank.

Tendler, J. 1993. Tales of dissemination in small-farm agriculture: Lessons for institution builders. *World Development* 21 (19) 1567-1582.

Universidad Austral. 1999. *Competitividad de la Producción Lechera Nacional. Tomos I y II.* Universidad Austral, Valdivia, Chile.

Uphoff, N. 1999. Understanding social capital: learning from analysis and experience of participation. In*:* Partha, D. and Serageldin, I. (Eds.) *Social Capital: A Multifaceted Perspective.* The World Bank, Washington, D.C.

Uphoff, N. 1993. Grassroots organizations and NGOs in rural development. Opportunities with diminishing states and expanding markets. *World Development* 21 (4) 607-622.

Uphoff, N. and Wijayaratna, CM. 2000. Demonstrated benefits from social capital: the productivity of farmer organizations in Gal Oya, Sri Lanka. *World Development* 28 (11): 1875-1890.

Vargas, G. and Foster, W. 2000. *Concentración y Coordinación Vertical en la Agricultura Chilena.* Paper presented at the Workshop *"Concentración de los segmentos de transformación y mercadeo del sistema agroalimentario y sus efectos sobre los pobres rurales",* Santiago de Chile, 27-28 de Noviembre de 2000, RIMISP.

Walters, BB., Cadelina, A., Cardano, A., and Visitacion, E. 1999. Community history and rural development: why some farmers participate more readily than others. *Agricultural Systems* 59: 193-214.

White TA. and Runge, FC. 1995. The emergence and evolution of collective action: lessons from watershed management in Haiti. *World Development* 23(10): 1683-1698.

Williamson, O. 1985. *The Economic Institutions of Capitalism.* Free Press, New York.

Woolcock, M. and Narayan, D. 2000. Social capital: implications for development theory, research and policy. *The World Bank Research Observer* 15 (2): 225-249.

Samenvatting

Context en achtergrond van het onderzoek

Vanaf 1990 heeft de Chileense overheid veel moeite genomen om de deelname van kleinschalige landbouw te bevorderen in een van de meest geliberaliseerde en competitieve economieën van de ontwikkelingswereld. In het bijzonder heeft het Landbouwontwikkelingsinstituut (INDAP), een afdeling van het ministerie van Landbouw, bijna 1,5 miljoen US $ besteed aan technische assistentie en investeringsprogramma's. Dit met het doel de capaciteiten en kwalitatieve mogelijkheden van kleine boeren te versterken en ze te verbinden met meer dynamische en winstgevende markten. Een van de sleutelelementen in deze inspanning was de oprichting en ontwikkeling van *Empresas Asociativas Campesinas* (EAC´s, associatieve bedrijven van kleine producenten).

EAC´s zijn wettelijk gevormde organisaties. De leden of eigenaars zijn bijna alleen kleine boeren die het beslissingsproces van de organisatie in handen hebben. Dit soort organisaties voeren marketing en waarde-toevoegende activiteiten uit, direct verbonden aan de primaire productie van hun leden (voorwaarts en achterwaarts in de keten). Het belangrijkste doel van de EAC's is het verbeteren van de prestaties van de deelnemende bedrijven die als economische eenheden betrokken zijn in markttransacties.

In het laatste decennium zijn ongeveer 780 van deze EAC's opgericht met een totaal aantal leden van ongeveer 58.000 kleine boeren (ongeveer een vijfde van alle kleine boeren-bedrijven in het land). Hun brutoverkoop bedroeg in 1998 ongeveer 100 miljoen US $.

Dit programma behelst een nieuwe benadering om de economische prestatie van kleine boerenbedrijven te verbeteren alsmede het welzijn van de boerenhuishoudens. Het is een belangrijke trendbreuk met de traditionele strategie van technologieoverdracht van landbouwinnovaties met de nadruk op het verhogen van de opbrengsten van bulkproducten. Deze nieuwe benadering, die sinds 1990 langzaam is ontwikkeld, beoogt daarentegen: (a) vorming van kleinschalige marktgerichte bedrijven te bevorderen (wat in Chili een verandering van traditionele bedrijven betekent en een nieuwe waarde toevoegt), (b) de lineaire verhoudingen van onderzoek-voorlichting-boer te vervangen door meer complexe en diverse privaatpublieke netwerken en allianties, (c) de EAC's te erkennen als de primaire vertegenwoordigers van de kleine boeren in het ontwikkelingstraject van de landbouw, (d) nieuwe facilitatie processen te ontwikkelen om de nieuwe strategie te ondersteunen.

De onderzoeksvragen

Het onderzoek richtte zich op de volgende vragen: (a) Hebben EAC's hun doel bereikt om de prestaties van de bedrijven van hun leden en het huishoudinkomen te verbeteren? (b) Zijn EAC's duurzaam als economische organisaties? (c) Wat is de relatie tussen de institutionele en economische prestaties van deze EAC's? en (d) Welke veranderingen in publiek beleid zijn nodig om effect en duurzaamheid van deze EAC´s te bevorderen?

Conceptueel kader en methoden

In dit onderzoek is een multidisciplinaire benadering gehanteerd, gebruikmakend van diverse theoretische perspectieven waaronder: de concepten van landbouwkundige kennis- en informatiesystemen en van innovatie als het resultaat van maatschappelijke leerprocessen (*social learning*) binnen *multi-agent* netwerken; het concept van transactiekosten zoals gebruikt in de neoninstitutionele economie; de theorie van maatschappelijk kapitaal en het concept van ontwerpprincipes voor de institutioneel sterke organisaties voor gemeenschappelijke acties, zoals voorgesteld door vergelijkende institutionele analyse.

Het onderzoek combineert beschrijvende en analytische kwantitatieve methoden toegepast op grote gegevensbestanden uit nationaal onderzoek naar boerenhuishoudens, kleine boerenbedrijven en EAC´s, met 14 kwalitatieve verdiepende studies van specifieke organisaties betrokken bij de productie, marketing en waarde-toevoeging aan melk, aardappels, groenten en frambozen.

Resultaten

De belangrijkste resultaten zijn als volgt:

1. De deelname van kleine boeren in EAC's is meer afhankelijk van markt- en beleidsprikkels dan van de hen ter beschikking staande middelen. De armste lagen van de boerenhuishoudens vormen hierop een uitzondering. Zij neigen niet naar deelname in deze organisaties. Marktprikkels zijn nauw verbonden aan de transactiekosten van de boeren. EAC lidmaatschap is daarom hoger onder kleine boeren die werken in productmarkten met hoge transactiekosten.
2. Maatschappelijke groepen en organisaties faciliteren de vorming van EAC's, omdat zij voorzien in een initieel forum waar alternatieven worden bediscussieerd, afgewogen en besloten. Deze locale groepen ´incuberen´ EAC's. De locale traditie van plattelandsorganisaties op zichzelf lijkt echter geen beslissende invloed te hebben, omdat veel regio's met een hoge graad van burgerorganisatie een laag ledenaantal in EAC's hebben, en *vice versa*.
3. De steun van externe vertegenwoordigers (zoals NGO's, private voorlichtingsbedrijven etc.) is essentieel voor de opkomst van EAC's. Terwijl lokale leiders werken aan de bereidheid van boeren om de status-quo ter discussie te stellen en om actie te ondernemen, voorzien externen de EAC's in zowel een 'wegenkaart' voor gezamenlijke actie als de netwerken die nodig zijn om informatie, expertise en financiering te verkrijgen.
4. EAC's ontstaan daarom door de interactie tussen al deze actoren: individuele boeren, plattelandsgemeenschappen, externe facilitatoren, overheden en markten. De aard van deze initiële interactie en het saldo van de bijdrage van iedere vertegenwoordiger heeft een bepalende invloed op de eigenschappen en toekomstige prestaties van de EAC's.
5. EAC lidmaatschap heeft alleen een significante positieve effect op de netto winstmarges van de leden, wanneer ze opereren in markten met hoge transactiekosten, zoals de melkveehouderij. Een EAC heeft geen voordelen voor kleine boeren die in markten met lage transactiekosten opereren, zoals de 'spot markets' voor bulkproducten van o.a. tarwe of aardappelen.
6. EAC deelname heeft geen aanmerkelijk effect op het totale inkomen van de leden, zelfs niet wanneer het gaat om markten met hoge transactiekosten. Inkomsten uit de agrarische activiteiten, worden ondermijnd door het corresponderende verlies van niet agrarische activiteiten en inkomstmogelijkheden.
7. Een grote meerderheid van EAC's zou niet levensvatbaar zijn zonder overheidssubsidies. Slechts 20% van de EAC's zouden waarschijnlijk overleven als de huidige overheidsprogramma's plotseling werden afgebroken; een extra 15 % zouden hun positie relatief snel kunnen handhaven als zij hun manier van werken zouden veranderen.
8. EAC's die voornamelijk opgezet zijn om bulkproducten te verhandelen in 'spot' of 'wholesale' markets neigen te falen. Dat gebeurt wanneer hun leden hun afspraken over het gezamenlijk vermarkten van hun productie niet nakomen. De betrokkenheid van de leden vermindert wanneer zij zich realiseren dat, onder deze marktomstandigheden, de EAC geen voordeel in marktprijzen of andere marktvoordelen kan bewerkstelligen, terwijl het lidmaatschap wel een aantal aanvullende kosten en risico's met zich meebrengt in vergelijking tot individuele verkoop alleen. Bovendien onttrekken de leden zich selectief: soms vermarkten ze zelf hun producten maar doen nog wel hun voordeel met andere diensten van de EAC's zoals toegang krijgen tot overheidsprogramma's en -subsidies. Onder deze omstandigheden worden EAC's snel ondermijnd.
9. Aan de andere kant kunnen EAC's succesvol zijn wanneer hun kernactiviteiten gericht worden op: (a.) het veredelen van de ruwe grondstofproducten van de leden; (b.) het voorzien in prijs- en marktinformatie als het kostbaar is om die te verkrijgen en het moeilijk is om zonder die informatie een goede prijs te maken; (c) het overwinnen van hindernissen bij de toegang tot de markt op het gebied van investeringen, technologie, of kennis en management ; en (d) het ontwikkelen van de portfolio van hun cliënten, in het bijzonder als het om snel bederfelijke goederen gaat.

10. Effectieve EAC's zijn onderdeel van effectieve multi-agent netwerken. Verbindingen naar actoren buiten de plattelandgemeenschappen zijn doorslaggevend bij het ondernemen in dynamische en competitieve markten.

11. Wanneer EAC's ingebed zijn in plattelandgemeenschappen, zijn hun interne regels en beslissingsprocessen effectiever en goedkoper vanwege de sociale en geografische nabijheid van de leden. Bijvoorbeeld wordt het monitoren goedkoper van het aangaan van overeenkomsten en verplichtingen door de leden, reduceert het de heterogeniteit van de leden en draagt op zijn beurt bij aan het formuleren van voor iedereen acceptabele regels; verhoogt het de maatschappelijke kosten en consequenties voor leden die zich niet aansluiten aan afspraken en verplichtingen, verzekert het een rechtvaardige en passende sanctie van diegenen die de regels breken, (dankzij betere locale informatie over de context waarin de schending plaatsvindt), en het voorziet in hogere en betere deelname aan organisaties. Een sociale en geografische nabijheid kan de operationele regels van de EAC's echter ook ondermijnen, bijvoorbeeld wanneer de handhaving van de overeenkomsten wordt belemmerd door familieverplichtingen, of wanneer diegenen met meer macht in de gemeenschap een te grote invloed uitoefenen binnen de EAC.

12. Een EAC zal uiteindelijk mislukken wanneer het systeem van regels de leden afschermt van marktsignalen. Effectieve interne regelsystemen moeten zich niet alleen richten op de verdeling van kosten en baten tussen de individuele leden ('profiteurs' uitsluiten), maar ook op de distributie van kosten en baten tussen de leden als individuele en onafhankelijke boeren en de EAC als een zakelijk georiënteerde organisatie. De balans tussen de economische en financiële prestaties en de duurzaamheid van de EAC's aan de ene kant, en de impact van de gezamenlijke inspanning op individuele bedrijven en huishoudens aan de andere kant, hangt af hoe dit tweevoudige verdelingsprobleem wordt opgelost. Alleen wanneer de regels duidelijke marktsignalen aan de individuele leden doorgeven, *en* wanneer deze regels de transactiekosten van onderhandelen, monitoring, en het dwingen van overeenkomsten tussen de EAC en haar leden effectief vermeerderen, kan dit probleem worden opgelost.

Denken aan de toekomst

Het beleid en de programma's die ontworpen zijn gedurende het laatste decennium hebben hun beslag gehad. Tientallen EAC's verkeren in crisis, hetgeen een noodzaak aantoont van een strategiewijziging teneinde de kwaliteit van de huidige EAC's te verbeteren. Zulke EAC's moeten: (a) effectiever zijn in het verbeteren van prestaties van hun leden als onafhankelijke boeren in een markteconomie, (b) steeds meer duurzaam en autonoom handelen als bedrijven en (c) institutioneel sterk zijn als maatschappelijk platform voor gezamenlijk handelen. Om deze doelen te bereiken, zou gewijzigd beleid:

1. alternatieven moeten ontwikkelen voor de duizenden kleine boeren die traditionele landbouwprodukten produceren en die geen kennis of mogelijkheden hebben met betrekking tot vernieuwing van producten en markten. Voor velen kunnen deze alternatieven gevonden worden in nieuwe rurale niet-agrarische activiteiten. Als de opties voor plattelandsontwikkeling beperkt zullen blijven tot alleen landbouw, dan zal politieke druk om EAC's op te zetten die ineffectief zullen zijn onweerstaanbaar zijn.

2. niet moeten aannemen dat het vormen van een EAC altijd het goede antwoord is. EAC's zijn alleen effectief onder bepaalde condities en kunnen een kleiner aantal doelen bereiken dan 10 jaar geleden gedacht was. EAC's zijn geen panacees voor het ontwikkelen van 'sociaal kapitaal' en van participatie van burgers op het platteland. Dit is ook waar voor die politiek en programma's die ontworpen zijn om de productieve, technologische en economische ontwikkeling van kleine boeren te verbeteren. Om zulke beleidsdoelen te bereiken moeten overheidsprogramma's werken met een ruimer kader van plattelandsorganisaties en –groepen, en niet alleen maar steunen op EAC's.

3. sociaal leren moeten bevorderen als deel van de ontwikkeling van EAC's. Hoewel er significante vooruitgang geboekt is in het afstand nemen van de lineaire technologie overdracht benadering, is

het nog niet voldoende. Grotendeels blijven velen de ontwikkeling van EAC's als een uitkomst van vooronderstelde sociale sturingsinitiatieven zien. Deze studie toont aan dat succesvolle EAC's het resultaat zijn van geleidelijke en complexe vernieuwingsprocessen waar diverse disciplines met verschillende perspectieven bij betrokken zijn. We moeten meer investeren in het vinden van benaderingen en methodes om sociale leerprocessen in EAC-vorming en ontwikkeling te vergemakkelijken.

4. moeten investeren in menselijk kapitaal. De inspanning om menselijk kapitaal te ontwikkelen in relatie tot EAC's is verwaarloosbaar in vergelijking met de honderden miljoenen dollars die geïnvesteerd worden in infrastructuurprojecten. We moeten dringend beslissen hoe alle actoren voorzien kunnen worden van kennis, capaciteiten en vaardigheden, die onmisbaar zijn in hun nieuwe aandachtsgebieden.
5. moeten denken en handelen in termen van netwerken. Effectieve EAC's zijn deel van effectieve multi-agent netwerken. We moeten uitvinden hoe we met EAC's werken in de context van deze uitgebreidere netwerken. We hebben nieuwe concepten, methoden en gereedschappen, instrumenten nodig om dit werk te ondersteunen.
6. moeten begrijpen dat EAC's alleen dan slagen als ze duidelijke marktsignalen doorgeven. EAC's bieden een organisatorisch platform om kleine boeren meer toegang te geven tot dynamische en winstgevende markten. Dit betekent vrijwel altijd dat zij onderhevig zijn aan meer en niet minder intense concurrentie. Begrijpelijkerwijs, willen publieke programma's die kleine boeren ondersteunen hen enigszins beschermen tegen de nadelige consequenties van het zich begeven in hevig concurrerende markten. Niemand zal de noodzaak voor mechanismen om deze overgang te vergemakkelijken ter discussie stellen, maar de vraag is wel hoe dat te doen. Tot nu toe hebben we vrijwel uitsluitend gesteund op directe subsidies en gesubsidieerde leningen, die heel vaak de EAC's ontkoppelen van de marktsignalen waar ze op zouden moeten reageren. Hoe zien de verzekeringssystemen, de risicodelende privaatpublieke contracten, de trainingsprogramma's, de regels van de overheid en de wettelijke kaders eruit, die kleine boeren kunnen helpen en de EAC's hun weg leren vinden in de nieuwe markten, maar die geen kunstmatige luchtbellen creëren die knappen wanneer de externe financiering stopt? Met deze vraag in het achterhoofd moeten we institutionele experimenten stimuleren en ondersteunen.

CURRICULUM VITAE

Julio A. Berdegué Sacristán was born in Mexico in 1957. Since 1984, he has lived in Santiago, Chile. He is married to Rossana Pellizzari, a rural communications specialist, and they have five children: Fabio, Antonieta, Javier, Julio and Daniela.

Julio started his professional education at the former National School of Agriculture, Chapingo, Mexico (now Universidad Autónoma Chapingo), but was "expelled for life" (so read the decree) in 1976 after the military entered the campus to repress a student movement. After such a propitious start, in 1980 he completed his bachelor's degree in Agricultural Sciences at the University of Arizona, Tucson, USA. He went on to get his Master of Science degree in Agronomy at the University of California, at Davis (1982). He started working on his Ph.D. in Genetics at the same school, but after having counted several thousand germinated and un-germinated seeds as part of his thesis research on the inheritance of barley tolerance to saline soils, he decided that crop improvement was not his calling.

He worked (1984-1989) on peasant farming systems research and development projects for a Chilean NGO (the Agrarian Research Group). After a brief stay (1991-1992) with the Inter-American Institute for Cooperation on Agriculture (IICA) working on research-extension linkages, he was asked to head the Department of Agricultural Development of INDAP (Agricultural Development Institute), the agency of Chile's Ministry of Agriculture charged with supporting small scale agriculture (1992-1995); here he was responsible for the extension, credit, agroindustry and marketing, and irrigation programs. During his stay in INDAP, Julio was part of the group of people who designed and implemented many of the new strategies discussed in this dissertation. Since he left INDAP, he has headed the International Farming Systems Research Methodology Network (RIMISP), a Latin American organization working on new approaches in rural and peasant agricultural development. He has worked in most of the Latin American countries in the research, development, training, networking and consultancy projects in which he has participated.

Julio has published over 30 peer-reviewed articles and book chapters, and is co-editor of six books and special editions of international professional journals.

In 1989 and after much preaching about how to get ahead in the world of farming, Julio decided to see if he had what it takes, and he bought a 9 ha farm, which by now has grown quite a bit. Julio loses the money he makes as a researcher and development worker, producing vegetables under contract with agroindustries and for the fresh market, vegetable seeds, and potatoes.