

# Strengthening agribusiness linkages with small-scale farmers

Case studies in Latin America  
and the Caribbean



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by

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# Preface

This paper provides a synthesis of a study in Latin America that forms part of a major initiative within FAO called “Strengthening linkages between the farmer and agribusiness”. This initiative stresses the search for alternatives in developing and strengthening just and efficient relationships between farms and agribusinesses. Agribusiness stakeholders may include all commercial firms involved in the production, distribution and processing of agricultural products, as well as firms offering services, including extension, research and/or business administration. Building farmer–agribusiness linkages refers to improving farmers’ capacities to add value to their products, converting their subsistence agriculture into commercial agriculture, through the processing of their products, and by establishing raw-material supply contracts with national and international processors and distributors. Strengthening also means improving the regular and timely supply of agricultural products needed by agribusiness enterprises, according to the specifications of the quality desired.

The constantly growing visible integration of world markets has enormous consequences on efforts to boost the agriculture sector in the least developed countries. In this situation, there are serious concerns for the survival of small-scale farmers and other agribusiness firms in the medium term. Marginalization by and exclusion from national and international markets could become a reality.

Strengthening the relationships between producers and processors as well as between producers and traders could be promoted by international support organizations such as FAO. In order to bring benefits to both actors, stronger and more trusting relationships are essential. These can bring benefits to both in terms of risk reduction and cost savings through better production planning and business management. Among the direct benefits obtained through solid relationships between the actors are: (i) a better understanding of the requirements of exogenous quality by processors and final consumers; and (ii) more stable incomes when a market guarantee exists for their products. Furthermore, long-term benefits are derived from converting to farming and agroprocessing in more efficient, effective, responsible and sustainable sectors. Other advantages could be: substitution of raw-material imports; currency savings; enhanced competitiveness at national and international level; employment generation; and sustainable rural development.

This paper on strengthening relations between agribusiness and farmers in Latin America complements similar work developed by FAO in Africa and Asia, where case studies were prepared and meetings held with experts. The results and lessons learned confirmed the basic goal of this FAO initiative, i.e. to promote and support the development of agribusinesses as a strategy for assisting transformation of the agriculture sector. The development of income generation and employment are then promoted, food security improved, and competitiveness in regional and international markets increased.

FAO’s concern and commitment to supporting the development of agribusiness originates from some simple observations. First, the major growth in the agriculture sector took place some time ago in post-production activities. This was explained mostly by the growing number of consumers with a middle income, even in low-income countries, and their demand for food of a higher quality and greater value added.



Second, the agrofood systems are dominated at international level by coordinated or vertically integrated organizations. A high concentration and vertical conditions are now realities in high-income countries. A similar trend has emerged in developing countries, particularly in Latin America and Southeast Asia.

Third, the lack of agro-industries and agribusinesses, which hinders adding value to agricultural products, has been one of the main causes of the stagnation in rural incomes. On the other hand, in a large number of countries and regions, a robust agribusiness sector that adds value to agricultural raw materials correlates with a higher agricultural GDP and higher rural incomes.

In sum, promoting the development of agribusinesses becomes crucial and inevitable. The question is not if but how to expand the sector rapidly while ensuring that the maximum benefits are obtained in an equitable and just manner in the context of necessary changes.

The Agricultural Support Systems Division of FAO initiated work on the development of agribusiness and its linkages in 2000, following similar activity in support of commercial farmers in Asia and Central Europe. In line with the new model of the programme that began that same year, a technical project was created that provided support to the development of agribusinesses, focusing on small and medium-sized enterprises. Activities within this project have four main areas of technical support:

- improvement in entrepreneurial capacity;
- introduction of suitable technologies;
- strengthening relationships between farmers and agribusinesses;
- policies for the development of post-production systems.

Although it must be seen in regard to all the areas mentioned, this study focuses on the third area. It does so particularly in reference to the strategies to improve negotiation capacities and fulfil the needs of small-scale farmer markets and other rural entrepreneurs. In carrying out this study in various regions and times, FAO has attempted to evaluate the main trends, opportunities and training needs based on specific real-life cases and expert opinions related in some way to agribusiness development. In consultations and regional workshops, FAO has sought to take into consideration the greatest number of stakeholder voices and build awareness on these aspects, the possibilities and constraints. Its aim has been to stimulate discussion and debate, and to develop a consensus on future strategies and actions.

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# Executive summary

The main objective of the project “Strengthening agribusiness linkages between the farmer and agribusiness” is to identify the agribusiness linkages and the key factors associated with them at the socio-economic and institutional levels. The project will also identify the main trends in socio-economic development and regulatory policies designed to increase agribusiness linkages. Finally, the limitations and opportunities will then be evaluated.

To this end, 12 cases of agribusiness linkages in 7 countries are analysed – in Argentina, Chile, Colombia, Costa Rica, Ecuador, El Salvador, and Guatemala. The cases refer to small-scale producers who participate in an associative way with the intervening organization in either the processing or trade of the production of agricultural origin. Nine of the 12 cases relate to fruits, dairy products and horticultural crops. The other three cases relate to special market niches.

The study defines agribusiness linkages such as the expansion of businesses of the agriculture and rural sector and its chains. It starts from the relationships involving contractual structures, alliances and associations (mainly implemented by the private sector) by long-term sustainable producers in the agriculture sector. In addition to a joint association of farmers, the study also examines different exogenous agents and agro-industrial chains, which may or may not include support from public policies.

The study shows that it is feasible for associative organizations of small-scale producers to promote the development of agribusiness linkages. The main linkages include associative organizations with producers, government, international cooperation, and not-for-profit and for-profit private enterprises. The objectives of the linkages are related to the technical development of the activity (technology transfer, training, and technical assistance), quality control, trade and market development, business management, and improving the living standards of families.

In general, linkages with government satisfy the technical requirements. Linkages with international cooperation aim at promoting both production and families. Linkages with for-profit private enterprises emphasize trade and market development, such as quality; and those with not-for-profit private enterprises support development, business management and information management.

This study identifies emerging linkages, such as very new ones that enable adaptation and progress in a competitive environment. Emerging linkages are those that promote business management, seen in the careful planning of production in accordance with market agreements in terms of quantity, quality and opportunity. There are also linkages aimed at developing productive factor markets and chain services, such as collective negotiation to access better conditions for land property, credit, agricultural machinery and inputs. Furthermore, there are those that enable qualitative improvements in products and negotiation conditions. Finally, there are linkages that have recently been emerging from the development of new links in the productive chains or through the processes of vertical integration that exist in organizations.

The following are included among the socio-economic and environment variables that allow for the promotion of agribusiness-linkage development:

- technical improvement in artisanal, industrial and combined processes; organizational development of a hybrid nature that combines the entrepreneurial perspective with producers’ practical experiences;

- better levels of education and skills, which directly affect managerial and negotiation capacity;
- solid domestic markets and expanding markets whose remunerative prices permit innovations and enable new skills to be developed;
- explicit policies of public and private cooperation.

The main limitations of agribusiness linkages are:

- lack of direct linkages of associative organizations with the sources of technological, organizational and institutional innovation (with profound impacts on the fabric of agribusiness relationships);
- low levels of education and skills of the rural population; conditions of poverty and misery for most of the rural population, which prevent accumulation and investment and frequently cause a part of the linkages of associative organizations to subsidize deficiencies in health, housing, nutrition and infrastructure;
- lack of an active interaction that establishes synergies between the public and private sectors for the benefit of small producers;
- a prevalent informality that benefits many private agents to the detriment of associative organizations;
- the crisis and vulnerability caused by depressed international markets and macroeconomic management that leads to revaluation of the national currency and to high rates of unemployment.

An explicit policy for promoting and developing agribusiness linkages is recommended. Linkages with greater potential for innovation and support to the competitive position of organizations and producers are endorsed, e.g. those that improve technical functioning, entrepreneurial and organizational management, as are services to the chains and the development of intermediate and final markets. The promotion of agreements between the public and private sectors is also recommended. This does not signify complementarity, but rather active interaction of the two parties, with objectives, goals and commitments.

Finally, support is recommended to associative organizations and participating producers in developing entrepreneurial skills, management and negotiation. Four important fields are identified: (i) planning production using information on final markets with which the development process deals; (ii) trade development at domestic and foreign level, which, in addition to final production, incorporates collective negotiation on production factors; (iii) the design and use of control mechanisms and risk prevention for producers as well as the associative organization; and (iv) the management and negotiation of agribusiness linkages according to priorities, costs and benefits. In these four fields, the use of the computer and its technical instruments is required in a relevant and timely fashion. The design of methodological instruments for analysing and evaluating the agribusiness linkages is also recommended.

## List of acronyms

AGEXPRONT	Guatemala Exporters Association for Non-traditional Products
AID	Agency for International Development
APILAC	Asociación de Producción e Industrialización de Lácteos (Association of Production and Industrialization of Dairy Products), Costa Rica
CACM	Central American Common Market
CCI	Corporation Colombia International
CECADE	Centro de Capacitación para el Desarrollo, Costa Rica
CEGA	Centro Colombiano de Estudios Económicos (Colombian Centre for Economic Studies)
CEPAL	Comisión Económica para América Latina
CORFO	Producción Promotion Cooperation, Chile
CORPOICA	Colombian Corporation for Agricultural Research
FECOAGRO	Federación de Cooperativas Agropecuarias de San Juan Ltda.
FIA	Foundation for Agrarian Innovation, Chile
FUNORSAL	Fundación de Organizaciones de Salinas (Foundation for Farmer Organizations of Salinas), Ecuador
GDP	Gross domestic product
GTZ	Gesellschaft für Technische Zusammenarbeit (German Cooperation Agency)
IDB	Inter-American Development Bank
IICA	Inter-American Institute for Cooperation on Agriculture
INDAP	Institute of Agricultural Development, Chile
INTA	National Institute of Agricultural Technology, Argentina
ISEAC	Instituto Salvadoreño de Educación y Asistencia Cooperativa
MERCOSUR	Southern Common Market
NGO	Non-governmental organization
PROCHILE	Dirección de Promoción y Exportaciones – Chile (Trade Promotion Board of Chile)
PRODAR	Programa de Desarrollo de la Agroindustria Rural para la América Latina y el Caribe (Program for Development of Rural Agro-industry for Latin America and the Caribbean)
REDAR	Rural Agro-industry Network
SENA	National Training Service, Colombia
SOCOAGRO	Sociedad Cooperativa Agroindustrial (Agro-industrial Cooperative), El Salvador

## Chapter 1

# Methodological and conceptual aspects

The new context of globalization and market liberalization offers new opportunities, but also new challenges to farmers. It requires more competitiveness and efficiency. It requires small-scale producers to ensure quality, consistency and standards of security if they wish to benefit from new markets. The comparative advantages derived from abundant natural resources need to be complemented with advantages arising from a stronger entrepreneurial role and links with the stages of processing. New approaches to farming should be promoted, including all kinds of linkages in the chains from production to consumption.

Many questions arise as to where one should lay the foundations for formulating a strategy and programme on development, such as:

- How much can we strengthen linkages between farmers, agribusiness firms and agents?
- How much entrepreneurial negotiation capacity can we build among farmers and agribusiness firms and agents, and what abilities and training are required?
- What are the roles of government, non-governmental organizations (NGOs) and private agents in building alliances with this goal in mind?
- What are the characteristics of alliances and associations in successful cases in this respect?
- Does the rural and agro-industrial sector have development policies that help to consolidate these linkages?
- Have these linkages had a positive impact on the living standards of small producers?

In order to answer these questions, the current project was carried out. It analysed different experiences in seven countries: Argentina, Chile, Colombia, Costa Rica, Ecuador, El Salvador and Guatemala.

## OBJECTIVES

The objectives of this paper are:

- identify the main trends in socio-economic development and regulatory policies aimed at increasing agribusiness linkages between producers and processors;
- identify two case studies of agribusiness linkages and key factors that are related in economic, social and institutional terms;
- identify the main limitations on and opportunities for building favourable agribusiness linkages to rural development.

## METHODOLOGY

### Countries and selection criteria

Argentina, Chile, Colombia, Costa Rica, Ecuador, El Salvador and Guatemala were selected on the basis of the following criteria:

- representativeness of different degrees of socio-economic development in Latin America;
- the socio-economic specificities that influence the agribusiness sphere;
- selection criteria of the cases.

### *Representativeness of different degrees of socio-economic development*

Latin American countries are grouped in different blocs by level of socio-economic development and commercial orientation. One bloc is the Southern Cone, consisting of Argentina, Brazil, Paraguay, Uruguay, and, more independently, Chile. These countries are characterized by a higher level of industrialization and trade. Argentina and Chile were chosen as being representative of this bloc.

The Andean Bloc, formed by Bolivia, Colombia, Ecuador, Peru and Venezuela, has a greater proportion of the rural population in the south of the continent. The agriculture sector is an important source of currency for these countries, although there is a stronger orientation towards mining in Peru and Venezuela. Colombia and Ecuador were chosen as being representative countries of this bloc in agribusinesses.

Finally, the bloc of Central American countries, which are characterized by a large indigenous population, small economies with a significant agriculture sector and one of the most intensive linkages with the United States of America. Costa Rica, El Salvador and Guatemala were chosen as being representative of this group.

### *The socio-economic specificities that influence the agribusiness sphere*

Historical events permeate the normative and institutional framework of each country and, simultaneously, the agribusiness environment. Of the countries selected, Chile and Costa Rica are distinguished by the stability of their institutions that have facilitated both development of a market economy and foreign investment.

Some of the countries have overcome great conflict and civil war, e.g. El Salvador and Guatemala. Another characteristic of Central American countries is a high proportion of indigenous people in their populations. Colombia has also suffered the consequences of armed conflict, with varying degrees of intensity.

Guatemala and, in particular, El Salvador are interesting in terms of the peace processes they have implemented recently, as well as the incorporation of the marginalized rural population in agribusiness development projects. In contrast, Colombia continues to deal with the effect of conflict in a general way, although its major impact is felt in the rural sector on all public and private contractual aspects.

### *Selection criteria of the cases*

The selected cases in each country correspond to small producers that participate in agricultural production and are successful in developing relationships with commercial businesses active in internal or external processing and/or trade.

Preference was given to those cases where small producers had participated in the processes of sustainable organization. During these processes, various forms of added value to the primary production have been incorporated inside the farm households or collectively into devices belonging to the organization.

In general, in most countries, one case concerns small producers that sell mainly to export markets, and another case concerns domestic markets with sales to supermarket chains or other agents.

### **Selected cases in each country**

The cases selected for each country were:

- In Argentina: Federación de Cooperativas Agropecuarias de San Juan Ltda. (Federation of Agricultural Cooperatives of San Juan) (FECOAGRO). FECOAGRO seeks to improve living standards and support agricultural diversification by producing horticultural seeds and fodder.
- In Chile 1: export of avocados and citrus of COOPEUMO Limitada; 2: asparagus and berries from COOPEUMO and Chacay for the frozen foods agro-industry.
- Ecuador 1: community dairies of the parish of Salinas; 2: agribusiness cassava processors, agribusinesses.
- In Colombia 1: Moras del Oriente; 2: uchuva for export in Sumapaz.
- In Costa Rica 1: Asociación de Producción e Industrialización de Lácteos (Association of Milk Production and Industrialization).
- In Guatemala 1: El Limón cooperative; 2: Cuatro Pinos cooperative.
- In El Salvador 1: Sociedad Cooperativa Agroindustrial (SOCOAGRO), an agro-industrial cooperative; 2: Asociación de Añileros de El Salvador (Indigo-processing Plants of El Salvador).

### ***Definition of agribusiness***

Agribusiness is defined as business expansion in the agriculture and rural sector and its chains, from relationships involving contracting structures, alliances and associations mainly carried out by the private sector, by producers of the agriculture sector that are sustainable in the long term. In addition to a joint association of farmers, it involves various exogenous agents and agro-industrial chains, and may or may not include the support of public policies.

The agreements aim to guarantee some basic conditions for advancing competitive production, such as development of chains of the productive processes (mainly post-harvest), towards processing, marketing, supplying services to the chain, management and setting up links with final consumers.

### ***Research methodology***

In order to undertake the research, the following procedure was carried out:

- The bibliography of case studies was revised; with a revision of the literature in terms of the agribusiness theme as well as entrepreneurial groups or clusters. The experience of the case studies was incorporated in project development.
- A research guidebook, a project report and a final report were prepared by the Centro Colombiano de Estudios Económicos (CEGA) for the consultants.
- The Programa de Desarrollo de la Agroindustria Rural para la América Latina y el Caribe (PRODAR) contacted its associates for case selection and to work on country reports. The cases were chosen according to their impact and their quality as proven examples of agribusiness linkages with small-scale producers. There was usually prior documentation on the case; information was completed through interviews with different agents and beneficiaries that participate in the agribusiness agreement.
- Consultants associated with the PRODAR who were in charge of the case studies in different countries sent a preliminary report, which was revised. Observations on the case were then made.

### **Planning the conceptual framework**

Various issues revolve around the topic of agribusiness as it relates to small producers: Do the producers participate in the growing expansion of rural agribusinesses? How? What are the endogenous aspects contributing to promoting and expanding this kind of intervention? What is the direction of small producers' intervention in agribusinesses? Which endogenous aspects contribute to promoting and expanding the agribusiness linkages starting from small producers? Which environment is advantageous or adverse for agribusiness linkages that involve small producers in respect of public and private policies and the macroeconomic environment? How are agribusiness linkages developed for small rural producers in the context of globalization? What are the impacts of these linkages on the living standards of small producers?

Before addressing these questions, the following paragraphs define some terms as they relate to agribusiness linkages.

**An agribusiness linkage** is any link that, in addition to contributing to expanding businesses, is liable to be transformed into a contractual relationship even if it does not exist at the moment of conducting the study. For example, the technical or business training provided either by government or the associative organization is liable to be turned into a linkage of a contractual character with the third party.

**A nodal agribusiness linkage** is one that organizes or is based on a network of agribusiness linkages, and generates a series of multiple agribusiness linkages. For example, a nodal agribusiness linkage is one that arises between an associative organization and a member or beneficiary, because in this linkage, multiple linkages emerge to serve different fronts of production, processing and/or marketing. A secondary agribusiness link is one that does not have similar importance as it does not generate any other type of linkages.

**An agribusiness matrix linkage** is one that, although without a tangible presence in the organizational structure, is important as a source of a network of derived agribusiness linkages. In general, each linkage that signifies the creation and consolidation of sources of applicable innovation must have this matricial nature. An example of this agribusiness matrix linkage is one that is established to advance basic and applied research in agro-industrial or productive technology. Moreover, such linkages are characterized by innovations in supplying services to production, such as technical development of a cold-chain infrastructure. They could also be institutional innovations that enable the creation of new forms of financing, such as reserve funds, investment funds and price-stabilization funds. The matrix linkage creates derived agribusiness linkages, e.g. in the cold chain, training, maintenance, transportation, specialized transportation, storage service, and package design.

**An endogenous agribusiness linkage** is one that the associative organization defines, specifies and makes tangible in such a way that it causes a cost and benefit for the organization and/or its beneficiaries. This endogenous linkage is usually adopted by the associative organization. An exogenous agribusiness linkage is one that is provided through third parties to the associative organization and/or its beneficiaries; this may or may not cause an explicit cost, depending on the agreements with third parties or governmental organizations.

**A stable linkage** has the capacity to secure or stabilize the agribusiness relationship and has lasting long-term and positive consequences in the way in which they are related to the associative organization and its producers in order to make progress in the productive processes. An example of this kind of linkage is one that promotes the development of technical or entrepreneurial skills that simultaneously require the use of higher levels of education and skills. This is the case of work applied in use and risk administration, in quality



control and supply planning, among others. An unstable linkage without fixation capacity is one that is created around a leader, without a supporting organizational structure.

Various forces with great economic impact have affected the field of agribusiness. On the one hand, some technical advances have privileged the development of services and means of transportation and communications. On the other hand, fiercer competition has emerged, no longer between individual businesses, but rather among groups of businesses gathered together as a cluster of corporative structures (between which processes of property concentration are simultaneously growing).

### **Technical change**

Agribusiness linkages could be classified as productive linkages or those referring to the processes of transformation, and service linkages of production management (which usually correspond to processes and transaction costs).

The two types of linkages tend to be interrelated, and to be determined reciprocally (that is, a great variety and number of productive linkages are required for more and different service linkages for the transaction of production). However, it is not necessarily a determined relationship. In some of the cases analysed, linkages for negotiations are highlighted as a result of their organizational strength and capacity to attractive public-sector, private-sector or policy support.

Agribusiness linkages become endogenous to the organization to the extent to which there is a clear promotion intervention by government or third parties. This could mean that the direct management of services is transferred to the associative organization. For this, a necessary budget is allocated where the scale of operation so justifies it, and provided that the requirements of the market and the business environment require that new and secondary quality requirements be fulfilled. On the other hand, exogenous linkages are maintained at the organization or where there is a favourable regional environment with diversity of horizontal chains, a for-profit business of limited scope, or where government contracts third parties.

Technical exchange in the rural environment is shown in the development of the rural agro-industry through the generation of new chains for added value in the raw product within the associative organization. This occurs by industrialization processes or by incorporating skilled work and services that add value, even to artisanal processes. According to the emphasis given, in the first case, scale economies are developed with intensive use of machinery and/or a productive infrastructure, such as a competitive strategy. In the second case, special market niches are promoted, with the emphasis on client service. The development of chains creates a favourable environment for agribusinesses as agents, services, enterprises and new labour and entrepreneurial skills are required. The main problem that arises is how to introduce this development of new chains in rural societies. This subject matter is discussed below according to the case studies analysed.

### ***Competition and new forms of integration***

Competition causes groups of enterprises to revise the way they are organized. It changes the profile of producers that are supported or, on the contrary, miss opportunities and perish. In this way, competition promotes new processes of coordinated organization in which the free competitive market is substituted or complemented through contracts, agreements or

chain integration at the property level. This could make the competitive conditions much more efficient.

In this competitive environment, the probability of continuing to be successful is practically non-existent for private enterprises that carry out activities at the margin of an organizational structure. These organizational structures are able to keep pace with growing competition through continual adoption of innovations, adjustments and negotiations in their environment. In this way, the probability of success is distributed in a constantly growing proportion for the associative organization and according to the associate producer's performance.

At the rural level, the associative organization corresponds to various types of structures. There are chain organizations with a high degree of vertical integration. This is the case with many cooperatives that differentiate processes spatially and can intervene in large-scale operations with industrialized processes. There are also producers grouped spatially, not only by the primary but also the artisanal or semi-artisanal processes. In this case, they constitute rural agro-industry clusters.

The organizational structures include many agreements that regulate their forms, such as a group of enterprises interacting with its surroundings according to its intervention in either the public or private sector. Ongoing renewal of organizational forms requires the development of managerial skills, such as the capacity to coordinate, negotiate and employ a system of incentives or sanctions.

In turn, the type of institutional arrangement between enterprises and the public or private sector affects the sphere of agribusiness invention. This could incorporate aspects that had previously been under the government's dominion (e.g. the provision of services such as technical assistance, skills-building, credit and risk coverage). Moreover, government intervention or intrabloc economic cooperation agreements could contribute to moderating or intensifying competitive pressures, and, thereby, the profile of the agribusiness that remains or disappears.

The emergence of new forms of coordination that are different and complementary to competitive markets favours the agribusiness environment, enabling the creation and integration of new, more complex activities and services. On the other hand, there may be negative effects from the "dis-institutionalization" of agribusinesses, or marginalization of some producers through the regulatory norms that are complied with by the majority.

In this case, the question is how these new forms of coordination emerge, as well as the public or private support for their consolidation. The case studies enable some hypotheses to be analysed in this respect, as discussed below.

### *Effects of agribusiness linkage development on producers*

Greater complexity in agribusiness linkages and new forms of coordination do not always favour the primary producer or different forms of rural agro-industry. The development of contracts could mean new sharecropping arrangements where producers do not participate in the design and negotiation of such contracts. On the other hand, in the different chains to the private sector, greater indexes of value added may be generated, whose benefits are not necessarily redistributed among the producers and their associative organizations.

The problematic aspect in this regard is: how can one simultaneously achieve a favourable agribusiness environment with positive effects on the living conditions of primary producers? The case study experiences also deal with this question.

### *Impact of macroeconomic, sectoral and regional environment in agribusiness linkages*

Sectoral or macroeconomic policies signify a group of stimuli or explicit limitations to the development of agribusiness linkages. A decisive promotion of this kind of linkage could emerge at a sectoral level, from promotion mechanisms to the emergence and development of these linkages through financial, technological, entrepreneurial, commercial and normative support. In many of the countries in this study, this is the goal of policies that revolve around the development of productive chains. Even if not considered in the case studies, decentralization and development processes in the regions could also have indirect impacts on the local development of the productive chains.

Macroeconomic policy could have an impact on efforts undertaken at the sectoral or regional level in the way in which these are subordinated to other priorities of the national group. Some of the most important macroeconomic aspects that affect the agribusiness sphere are: exchange-rate policies; interest rates; capital flows; and investment policies. The central aspect of this theme is whether the macroeconomic and sectoral environment is favourable to developing the agribusiness linkage, and how this is generated and promoted.

### **The conceptual framework and linkage development**

Various case studies on products of the agriculture sector have been carried out at national and international level. All the known successful cases have had a direct impact on what is called the conceptual framework, such as the matrix linkages. Matrix linkages are those with the capacity to generate innovations that have the potential to be expressed in networks derived from agricultural linkages and that are important to support this success. Generally, in this way, the success of a product is explained by the development of an innovation process at the technological, business, commercial or institutional level, which leads to a better positioning of a product in the national or international market.

Some of the most successful cases (Jaffee and Gordon, 1992) have organizations that promote a product for export. These cases fulfil a minimum set of requirements, such as an adequate ecological environment and comparative advantages for lower costs of labour and inputs. These organizations also have capital and foreign technology in order to enable access to high-level technology and the permanent training and qualification of manual labour.

For example, in Chile, elements associated with success have been identified as: advances and innovations in the type and quality of the product; knowledge of the market; suitable marketing mechanisms; delivery punctuality; and technological innovation. In the case of Chilean salmon, Fundación Chile was fundamental because it introduced technology for intensive salmon farming. For this reason, Fundación Chile turned to practical activities (consultancy in new businesses and contacts with foreign organizations) in order to acquire the necessary knowledge at the technical and commercial levels.

**Successful organizations** are characterized by supplying the producer with a minimum of necessary services, such as internal and external sanitary control, training and control for suitable management of quality, packaging and display, as well as a product-purchase guarantee. In a complementary way, public relations are promoted for international market development, a lobby is formed to avert legal threats, incorporating innovative businesses is promoted, and studies are carried out for the legal safeguarding of the product at international level.

Successful cases at the organizational level have at least a commercial division (or a trader), a marketing division, and a technical division, which carries out quality control and provides

seals of quality to those fulfilling the requirements. The trader negotiates with enterprises in the international markets.

In various cases (such as the wine industry and the forestry sector), some individual circumstances have brought success, e.g. tradition, training and the presence of a critical mass of qualified personnel as well as universities or technological centres that have developed advantages and technologies in these products. On many occasions, government has accelerated the innovation processes with long-term incentives, tax exemptions, contributions of initial capital or security, and incentives to foreign investment in order to develop certain kinds of activities.

**Innovations** that guarantee success have incorporated significant services of transportation, storage, cold-storage facilities and return delivery. Innovations at the level of primary production are directed towards greater precision and certainty in the results of the processes. For example, in the case of fruit, innovations have been directed towards competitive location and the design and management of orchards, as well as the improvement of irrigation systems, crops and certified genetic material.

In the case of fruit, there have been critical moments of change (Meller, 1995) in which the different range of fruit products becomes decisive for success in markets. Although the producers initially controlled most of the decision-making, these circumstances have changed. In the past, managerial efficiency was measured by the capacity of the producer or exporter to incorporate new technologies and react to market changes. Today, it is measured according to the ability to handle crises, risks and business complexity. In this way, contracts, participation and basic norms of interaction between producer and exporter are redefined. Other agents enter and selling strength becomes an essential factor.

A review of successful case studies (Jaffee and Gordon, 1992) reveals that these are in line with changes in the conditions of their environment and income, e.g. processed foods whose domestic demand grows significantly. The organizations that carry out the final trade require quantities of stable supplies distributed on time. Moreover, they need to meet the minimum requirements in quality and quantity, which increase as markets grow.

Important **conditions of the environment** are: macroeconomic stability; security provided by government; infrastructure; normative aspects; and public goods provided by grants in research and technology. Products are successful where these conditions are present, and generate vertical integration (usually under the control of the final processor, or of the trading enterprise that operates on a large scale).

Other evidence from the above-mentioned case studies (Rabellotti, 1996) indicates that systems of small and large production have some common requirements in terms of the development of agribusiness linkages. These include: availability of a good collection of knowledge, as shown in education levels, technological uses and innovations; financing supply in accordance with the required technological and entrepreneurial changes; and innovations.

However, **small-scale production** has certain particularities that permeate the kind of connections established with agribusiness linkages. These are different from where the stakeholders are multinational businesses operating mainly at wide scales. Such particularities are: the significant use of manual labour; a manifestly adaptive behaviour in facing changes in their environment; and production decisions that depend largely on the structure, needs and relationships of the family and its social group.

Entrepreneurial innovations associated with rational forecasting calculations usually involve previous processes of basic, relatively expensive research, as well as risky investments

that open the way for new goods and services that should be marketed both quickly and practically. They frequently involve negotiations with the public sector for financing these previous investments and for the legal rights to the results.

In small-scale production systems, this forecasting has been virtually absent. Therefore, an associative organization capable of copying or emulating entrepreneurial organizations operating at a large scale is needed. Innovations may emerge as empirical/artisanal knowledge is combined (usually transmitted through cultural heritage) with scientific knowledge. Known successful cases involve rapid and intensive changes in the field of agribusiness with the participation of small-scale producers emerging from hybrid organizations, that is, associations that integrate intensive family labour with managerial strategies on a large scale in the segments of processing, trading and provision of productive services to farmers (Suárez, 2001).

A **hybrid organization** may take on a formal structure, as in cooperatives in which large, medium-sized and small enterprises coexist. It may be planned as a complex system of interrelationships, coordinated by a body or agent with great negotiating power, as has been the case for many decades with the Federación Nacional de Cafeteros in Colombia.

Recent institutional developments suggest that these organizational structures could be partially substituted or complemented through contracts. However, cases of hybrid structures operating mainly through contractual instruments are not known.

The main characteristic of **successful hybrid structures** is that they link together the instruments of business rationality and profitable calculations with the features of small-scale production, such as adaptation. In this way, accumulation mechanisms, knowledge, research and training, and trade coexist with norms of incentives, sanctions and reciprocity in support of the processes of change, modernization, emulation and learning.

The active agent in these symbiotic, successful structures could be one or many entrepreneurial agents that have either an organizational form or accumulative tradition (e.g. religious communities) or, in more exceptional cases, the government or authorities. Success can be achieved to the extent that the active agent not only carries out business, but also uses the instruments all of these structures (calculations, quantification and anticipation), and the passive agent participates in adapting to cultural norms, assimilating the incentive and sanction regime, redistributing benefits fairly, showing loyalty, and joining the organizational structure.

**Regional or local clusters** can emulate this symbiotic structure at a spatial scale by establishing relevant suitable linkages between small producers and financial, educational, commercial and training organizations. Clusters in India, Italy and Brazil are examples of this type of structure (Rabellotti, 1996).

The agribusiness linkages generated within this symbiotic structure are more liable to diversify and develop in response to changes and the new circumstances of globalization. The calculation capacity and anticipation of the entrepreneur (using quantitative instruments of information, evaluation and knowledge) are applied to the particularities of small-scale production in order to generate new instruments to connect with the surroundings. A good example is provided by the design of incentives by the supermarket chains to promote a supply of maquilas among the small-scale producer processors. Another example is the dissemination of new and relevant information by active business agents in order to promote a line of innovations, which would otherwise not take place among small-scale producers.

Led either actively or managerially, the symbiotic structure induces organizational changes to face fierce competition resulting from the globalization processes. More aggressive

strategies can be adopted inasmuch as they incorporate and intensify the business ingredients (new agents, new instruments of accumulation and innovation) or encourage a more marked corporate behaviour by producers participating in the agribusiness linkages. This is the goal of strategic alliances – incentives to make production more efficient or sanctions in the event of non-compliance with the main market demands. In an extreme case, this may filter out stakeholders and agents in order to grant priority to the most efficient according to the market conditions.

A problematic aspect is how a symbiotic organizational structure could have an impact on improving the living standards of primary producers. The condition for unifying and keeping the symbiotic organization coherent with a high participation of small producers is legitimacy. Such legitimacy emerges in the way in which two types of instruments are incorporated. One type belongs to the entrepreneurial vision, such as democratic participation of individuals in the organization and in decisions adopted. The other type involves reciprocities and forms of equal redistribution of benefits among the associates and their social networks (Suárez, 2001).

Frequently, these two simultaneous conditions of democratic and fair participation do not lead to tangible results. On the contrary, there are adjustment processes throughout with conflicts among interest groups or with demands by members or enterprises as a result of the interactions between heterogeneous procedures and agents.

Another problem considered by the research is the impact of the macroeconomic and sectoral environment (regional and local) on the field of agribusiness. The environment could be defined here as the situation of the markets and its relationship with the development of agribusinesses. A wide, solid and growing domestic and regional market is an important condition for progress in agribusiness linkages. This condition facilitates a minimum of specialization in work, jobs and activities, and at the same time, a level of technological development that enables projections towards major markets, such as international markets. Some favourable sectoral policies, such as credit lines under conditions of development and government-regulated intervention according to chain-integration agreements (in tariffs, technological development, and training), require coherence in the macroeconomic sphere, in exchange rates and in public investment.

## Chapter 2

# Agribusiness linkages in cases studied

*There are two important aspects for evaluating agribusiness linkages. One is the type of linkage that could emerge in the next few years as a result of the globalization process, and the other is how the content of the existing agribusiness links has varied. The first part of this chapter describes and comments on the type of link of agribusinesses encountered in the case studies. In the second part, concrete cases are presented, and the content of agribusiness linkages and its evaluation are discussed.*

## CASE STUDIES AND THE MACROECONOMIC ENVIRONMENT

### Characteristics of the case studies

In this section, reference is made to cases developed for this research, in particular, concerning the following aspects: (i) development of the linkages of agribusiness and associative factors; (ii) impacts of agribusiness links on each of the participating parties; and (iii) the impact of the agribusiness linkages on the producers' living standards

Table 1 shows some basic characteristics of the cases analysed. Of the 12 cases selected, 8 relate to fruit and vegetables, 2 to milk-product processing and 2 to indigo and chilli; 6 concern intermediate raw materials for subsequent industrial processing, and 6 relate to final markets. This composition is indicative of the advances in the last 20 years in domestic and foreign markets for dairy products, fruits and horticultural crops, which generally show greater dynamism than other products of traditional consumption such as cereals or tubers. In addition, Table 1 also shows market developments towards selling products of agricultural origin with greater added value.

The cases studies are classified by type of market: 6 products are intended mainly for export, with vegetables, fruit and products for special market niches (such as lemon, cassava starch and indigo), 5 for domestic consumption, and 1 for the domestic market and exportation.

All the products undergo some kind of process after collection, either in adaptation and packaging, pre-preparation or processing. In 9 of the 12 cases, there had been explicit intervention in assimilating the experience either by government, international cooperation or religious communities. Private enterprises have played the leading role in only 3 of the 12 cases. In one case (Argentina), a joint initiative between government and producers is considered. Although the cases selected may not represent the entire range of agribusiness experiences, they illustrate the difficulty in initiating and consolidating agribusiness experiences with small-scale producers without any kind of exogenous support.

Five types of organizations are identified in the cases analysed: (i) first-degree cooperatives (5 cases); (ii) second-degree cooperatives (2 cases); (iii) producer associations (2 cases); (iv) private enterprises of processing and trade (2 cases); (v) and community business (1 case). The most frequent body corporate is the cooperative (7 of the 12 cases). Next in importance is the

TABLE 1  
Agribusiness linkages – selected cases

Countries and cases	Partnership type	Initial support from	Goal
1. Argentina FECOAGRO Ltda.	Federation of cooperatives	Government and producers	Improvement in living standards, seed production and agro-indust. production
2. Chile COOPEUMO Limitada	Cooperative	Government	Services for producers of avocado and citrus for export
Chacay Cooperative	Cooperative	Government	Asparagus and berries for the frozen-food agro-industry
3. Colombia Moras de Oriente	Private enterprise	Private	Processing and trading blackberry and other fruits
Uchuva exporter	Private enterprise	Private	Uchuva export
4. Costa Rica APILAC	Producers association	Private	Milk processing
5. Ecuador Agribusinesses in Manabí	Cooperatives and private enterprises	Government	Cassava processors
Community dairies in Salinas	Community organizations	Religious community and international cooperation	Cheese processing
6. El Salvador Azules	Producers association	Government and international cooperation	Indigo production and processing
SOCOAGRO	Cooperative	Cooperatives and international cooperation	Chilli cultivation and processing
7. Guatemala Cuatro Pinos Cooperative	Cooperative	International cooperation	Export of fresh vegetables
El Limón Cooperative	Cooperative	Religious community and international cooperation	Lemon dehydration

producers association, which frequently does not provide any benefit for the organization but rather for its members. The importance and impact of each of the cases analysed may be determined by the extent of its activity and the number of direct or indirect beneficiaries involved.

All the producers associated to the various cases share features such as proximity. In some of the cases, there are rural agro-industry conglomerates, as in FECOAGRO, the Salinas dairies, cassava processors in Ecuador, and Azules in El Salvador.

Table 2 presents indicators of impact, size and potential according to the number of direct and indirect beneficiaries of each of the cases analysed. The total value of production of the case studies is at least US\$15.5 million annually. Beneficiaries include 3 327 direct producers, and at least 22 000 people benefit indirectly.

Argentina, Chile and Colombia account for most of the value generated by the organizations analysed, with about 62 percent. The direct beneficiaries of these linkages in these three countries are about 47 percent of the total of the population studied.

Of the cases selected, about half emerge from situations of high social and economic pressure that have led to interventions by government or international cooperation. For example, in Chile, cooperatives were created by the government of Eduardo Frei as part of the agrarian reform process. The Cuatro Pinos cooperative was initiated in Guatemala within the framework of a reconstruction process following the 1976 earthquake. Experiences in El Salvador and one in Guatemala originated in response to the concern about poverty.



TABLE 2  
**Agribusiness linkages – some indicators of the selected cases**

Countries and cases	Year of creation	Production value, 2000	Prod. value / direct beneficiaries	No. of direct beneficiaries	No. indirect beneficiaries
(US\$)					
1. Argentina					
FECOAGRO	1992	2 788 308	6 970.8	400	2 000
2. Chile					
COOPEUMO Limitada	1969	2 936 500	6 719.7	437	2 432
Chacay Cooperative	1968	323 529	3 594.8	90	360
3. Colombia					
Moras de Oriente	1991	720 000	1 440.0	500	2 500
Exporter of uchuva	1986	2 880 000	19 200.0	150	750
4. Costa Rica					
APILAC	1993	558 754	3 229.8	173	865
5. Ecuador					
Agribusinesses in Manabí <sup>1</sup>	1985	1 305 600	n.a.	365	2 000
Community dairies in Salinas	1978	3 212 000	22 942.9	140	6 000
6. El Salvador					
Azules	2000	40 000	533.3	75	500
SOCOAGRO	1998	66 876	412.8	162	600
7. Guatemala					
Cuatro Pinos Coop. <sup>1</sup>	1979	375 000	n.a.	700	3 500
El Limón Coop.	1993	300 000	2 222.2	135	675
<b>Total</b>		<b>15 506 567</b>	<b>4 660.8</b>	<b>3 327</b>	<b>22 182</b>

<sup>1</sup>Corresponds to the profits of the associative organization.

Another remarkable aspect of the experiences analysed is that almost all could be considered recent (from the 1990s) as regards the progress of agribusiness linkages. The oldest experiences, such as those in Chile, cassava processing in Ecuador, the Cuatro Pinos cooperative in Guatemala, and Moras del Oriente in Colombia underwent drastic re-organization prior to changes in their business environment.

Some characteristics of beneficiaries reflect conditions of their environment, which are described later on in this paper. The great majority have very low levels of schooling. The members of the Chilean cooperatives are an exception, with a relatively large proportion of skilled producers (18 percent). In Andean countries, the prevalent level of education is primary schooling. Beneficiaries in Guatemala and El Salvador have the lowest levels of education as they have only recently overcome illiteracy and reached the level of reading and writing.

The primary users of beneficiary producers are characterized by diversification. In almost all cases, the commercial product is cultivated in a plot or specialized area of the farm (one which is already destined either for pasture, plant or fruit cultivation) that permits the application of a more intensive technology. However, the rest is used for more diverse crops, selling to local intermediaries, and self-consumption.

### Macroeconomic aspects of selected countries

All the information analysed in this section and presented in the tables has been sourced from the Comisión Económica para América Latina (CEPAL). Macroeconomic and environment aspects could influence progress in agribusiness linkages through the magnitude of the domestic market, the pattern of productive growth, the development of its social and human capital, and exchange relationships with other countries.

TABLE 3  
**Macroeconomic and environment variables, 2000<sup>1</sup>**

	GDP	GDP/inhabitant	Total consumption	Gross income	Unemployment rate
	(US\$ million)				(%)
Argentina	270 455	7 303	196 367	263 462	15.1
Chile	80 757	5 300	47 323	71 573	9.2
Colombia	96 765	2 287	74 586	92 626	20.2
Costa Rica	14 824	3 685	9 908	13 218	5.3
Ecuador	17 916	1 417	14 398	17 020	14.1
El Salvador	11 002	1 753	9 123	11 660	6.5
Guatemala	17 737	1 558	13 369	17 829	n.a.

<sup>1</sup> 1995 prices.

TABLE 4  
**Macroeconomic and sectoral variables, 2000<sup>1</sup>**

	GDP	Agrop. GDP	Mining GDP	Partic. prim. GDP	Industrial GDP	Services GDP <sup>2</sup>
	(US\$ million)				(%)	
Argentina	270 455	13 622	4 711	6.8	15.2	48.3
Chile	80 757	5 228	9 341	18.0	15.6	33.8
Colombia	96 765	13 598	4 527	18.7	14.0	44.8
Costa Rica	14 824	1 726	16	11.7	15.6	37.0
Ecuador	17 916	2 123	1 616	20.9	23.1	41.0
El Salvador	11 002	1 322	48	12.5	18.4	41.0
Guatemala	17 737	3 586	156	21.0	9.7	43.0

<sup>1</sup> 1995 prices.

<sup>2</sup> Different from basic services.

The information in Tables 3 and 4 shows that the potential market size, defined by gross domestic product (GDP) and GDP per inhabitant, is quite heterogeneous in all the countries analysed. The country with the largest economy, Argentina, has a GDP that is 24 times greater than that of the smallest economy, El Salvador. These differences continue up to the GDP level per inhabitant, which is an indicator of individual consumption potential. It is five times higher in Argentina than in Ecuador, the country with the lowest GDP per inhabitant.

Three groups of countries analysed are remarkable for the size of their economy and consumption potential. The first group belongs to the Southern Cone countries, such as Argentina and Chile. They are characterized by having a higher GDP per inhabitant. The second group, the intermediate one, consists of Costa Rica and Colombia. The third group, with the lowest levels of GDP per inhabitant, comprises Ecuador, El Salvador and Guatemala.

The patterns of economic development differ from one country to another, without necessarily corresponding to the size of the economy. For example, primary activity has a greater emphasis in Guatemala, Chile, Colombia and Ecuador (Table 4), in the last three because of the influence of mining, where Chile dominates.

On the other hand, Ecuador and El Salvador dominate in terms of industry as a value-generating sector, while Argentina and Colombia head the services sector.

All the countries except Costa Rica export mainly goods from the primary sector (Table 5). Ecuador and Chile have the highest proportion of exports in the primary sector owing to the significance of their mining exports. Services represent a dynamic export line for some countries. Central American countries have the best positioning in this respect inasmuch as they export services such as tourism and maquilas, mainly for the northern hemisphere.

TABLE 5  
Variations in macroeconomic and environment variables, 2000

	Variation GDP <sup>1</sup>	Variation farming GDP <sup>1</sup>	Variation GDP <sup>2</sup>	% exports – primary sector <sup>2</sup>	% exports – manufact. <sup>2</sup>	% exports – services
Argentina	4.1	2.6	(0.6)	67.9	32.1	14.7
Chile	6.1	4.5	4.9	84.0	16.0	17.8
Colombia	2.7	1.5	2.7	65.9	34.1	12.7
Costa Rica	5.0	4.1	1.7	34.5	65.5	23.1
Ecuador	1.7	1.4	2.8	89.9	10.1	16.3
El Salvador	4.3	1.4	2.0	51.6	48.4	19.0
Guatemala	4.1	2.8	3.1	68.0	32.0	19.0

<sup>1</sup>1990-99.

<sup>2</sup>2000; including farming and mining.

In general, because of a persistent revaluation of their national currency in the 1990s, the competitive position of most Latin American countries was affected, mainly by factors such as speculative capital flows and high domestic interest rates. This phenomenon occurred between 1987 and 1994, mainly affecting the economies of Argentina, Chile, Colombia and Ecuador.

Finally, the most recent trends in economic growth could run counter to the trajectory observed in the last decade. This is the case in situations of stagnation or economic recession as observed in Argentina, Colombia and Costa Rica in the last year or two. Central American economies have recorded a positive performance since the 1990s, encouraged by an expanding foreign sector, from activities in maquila and assembly for the United States of America, as well as the sale of other services.

Other variables that could affect the agribusiness environment relate to the population and its socio-economic characteristics. The largest population is in Colombia, followed by Argentina. However, the low value-generation per person and the unequal distribution of income considerably restrict their consumption capacity (Table 6).

The three groups of countries that have already been considered for the analysis have a corresponding similarity in terms of the socio-economic characteristics of the population at the level of development. The Southern Cone countries have a lower proportion of rural population, whose growth is very low or negative. The illiterate population is less than 5 percent. More than 90 percent of the rural population have more than five years of education. Poverty affects at least 25 percent of all the rural inhabitants.

TABLE 6  
Distribution of household income

	Share of total income by			
	Poorest 40%		Richest 10%	
	1990	1999	1990	1999
	(%)			
Argentina <sup>1</sup>	14.9	15.4	34.8	37.0
Chile	13.2	13.8	40.7	40.3
Colombia	8.4	6.7	41.8	40.1
Costa Rica	16.7	15.3	25.6	29.4
Ecuador	17.1	14.1	30.5	36.6
El Salvador <sup>2</sup>	15.4	13.8	32.9	32.1
Guatemala <sup>3</sup>	11.8	12.8	40.6	40.3

<sup>1</sup>Initial year: 1994.

<sup>2</sup>Initial year: 1995.

<sup>3</sup>Initial year: 1989.

With respect to these variables, Colombia's performance resembles the poorest countries, reflecting the problems of violence and the high concentration of income. Colombia, El Salvador and, above all, Guatemala have a high percentage of malnourished people (Table 7). Illiteracy is particularly critical in Guatemala, El Salvador and Ecuador. Almost half of the rural inhabitants of Colombia, El Salvador, Guatemala, and probably Ecuador have not had more than five years of formal education. In these countries, rural poverty and misery affect most people.

In all the countries, particularly those that have suffered conflicts and wars and that have entered into peace agreements, such as Guatemala and El Salvador, decentralization policies have recently gained in importance. Greater participation by the regions in defining and/or carrying out policies has been promoted.

Finally, the intensity of exchange is also a variable that could affect the progress of agribusiness linkages. Table 8 shows indicators of the degree of economic openness, such as the relationship between exports and GDP, and between imports and GDP. The highest import-exchange indices correspond to countries with the highest mining orientation, such as Chile and Ecuador, as well as Central American countries that excel in selling services and at the same time import consumer goods and sustainable goods.

Trade blocs are a possible way of expanding market potential. According to the CEPAL, the trade bloc in Central America, the Central American Common Market (CACM) represents 23 percent of the total exportation of member countries. El Salvador, Guatemala and Costa Rica stand out as exporting countries, supplying mainly chemical and food products. The Andean bloc accounted for 9 percent of exports for member countries; Colombia and Venezuela dominate as exporting countries. Finally, MERCOSUR captured

TABLE 7  
Rural population variables, 2000

	Population (000)	Rural population (%)	Variation in rural population (%)	Malnourished rural population (%)	Infant mortality rate	Illiterate population (%)	Rural education 5 years or less (%)
Argentina	37 032	10.4	(1.1)	0.0	20.0	3.1	n.a.
Chile	15 211	14.3	0.7	4.0	11.6	4.3	10.7
Colombia	42 321	25.5	0.1	13.0	25.6	8.2	46.2
Costa Rica	4 023	35.5	1.9	6.0	10.9	4.4	18.5
Ecuador	12 646	37.3	0.3	5.0	41.5	14.4	n.a.
El Salvador	6 276	45.0	1.6	11.0	26.4	21.3	49.7
Guatemala	11 385	59.6	2.3	24.0	41.2	31.3	67.3

TABLE 8  
Trade-related variables

	Exports/GDP		Imports/GDP	
	1990	2000	1990	2000
Argentina <sup>1</sup>	0.09	0.09	0.03	0.08
Chile	0.27	0.25	0.23	0.24
Colombia	0.17	0.16	0.14	0.14
Costa Rica	0.26	0.35	0.40	0.38
Ecuador	0.25	0.35	0.17	0.25
El Salvador <sup>2</sup>	0.09	0.10	0.20	0.29
Guatemala <sup>3</sup>	0.15	0.14	0.22	0.26

<sup>1</sup>Initial year: 1994.

<sup>2</sup>Initial year: 1995.

<sup>3</sup>Initial year: 1989.

21 percent of total exports of its members, with a large share represented by Argentina and Brazil. Chile does not belong to any regional integration agreement. In contrast to most of the countries analysed, Chile's largest market is not the United States of America, but the European Union.

Almost all the cases analysed that show good economic results are explained by the fact that products aimed at very specific market niches are not affected by depressed international prices for basic products (as with indigo, uchuva, dehydrated lemon, cassava starch and vegetables) or dynamic domestic markets (dairy products, and fruit). However, the products with the greatest exposure in international markets for basic products, such as fruit and grains, have had to face negative effects, such as low prices and currency revaluation.

The depression in countries' domestic markets, resulting from low economic growth rates, is also an adverse condition for the development of agribusiness linkages. Low demand negatively affects the economic results and the possibility that agribusiness linkages will persist in the long term.

The other variables that affect agribusiness linkages are the level of education and the degree of social and social development. Under precarious circumstances, as in most of the countries analysed, part of the agribusiness linkages are directed towards carrying out redistributive and equitable labour, with the consequent administrative surcharges. The very benefits from agribusiness linkages consist in remedying part of this precariousness in living conditions through programmes to improve nutrition, health, housing, etc.

The level of education directly influences the possibility of progress in developing technical agribusiness linkages and business management, as Chile illustrates. In the two cases in Chile, the producers have the highest levels of education and skills, which enable them to use information for implementing controls and careful monitoring of product quality, as well as planning supplies. For the same reason, they are more capable of including technology transfer, information supply and exchange, and quality control in their business-agreement linkages.

Without sufficient education, the ability to cope with new situations or a profoundly changing environment by applying technology and knowledge is lacking. The processes remain at an artisanal level, which progresses in isolated productive units, as in most cases in Ecuador. The Salinas dairies project is of great importance because of its redistributive intervention.

### **Sectoral policy and linkage development**

In all the countries analysed, the sectoral policies of support to the agriculture sector have been similar since the end of the 1980s. These policies have involved reduced direct government intervention in order to promote greater participation of private enterprises in activities that had long been the responsibility of the public sector. In this way, basic research activities, technical assistance, training, marketing and subsidized credit have been affected.

Overall, promoting greater opening of economies and better integration of world markets has been attempted through a reduction in tariffs and the elimination of import quotas, protection mechanisms and administered prices. At the same time, preferential trade agreements have been extended either by blocs or bilaterals that affect the size of demand. The main blocs that different countries belong to or actively participate in are: (Chile and Argentina) in MERCOSUR; Ecuador and Colombia in the Andean Bloc; and the Central American countries in the trade bloc of Central America, in addition to many agreements by countries and on products.

In restructuring the financing policies of the agriculture sector, priority was given to balancing the treasury, and subsidies were withdrawn. The governments in the region began to enter into other services, such as supplying information about international markets, with the aim of lowering transaction costs. Other policies that were generally encouraged in the different countries were: price ranges; financing storage and marketing mechanisms for the private sector; developing contract agriculture; and the transfer to private agents of services such as technical assistance and support to organizations.

Previous policies that had attempted redistribution in accessing assets such as land were weakened in order to provide a greater role for market relationships. However, the balance of access is quite weak to those producers with fewer resources through these mechanisms. This is because they have generally proved poor from a practical, operational point of view in terms of granting the poorest people access to productive resources. In most countries analysed, there have not been structural modifications, for example, in the structure of distribution and land tenure.

Different analyses concur that, in general, a polarized model of development has intensified in Latin American countries with a few leading, modern and competitive activities standing out in terms of their entrepreneurial aspects. These activities are directed towards export while agricultural products that use family labour and are intended for the domestic market remain at a low technical level and lose competitiveness.

With respect to the cases analysed, the impact of sectoral policy on agribusiness linkages is shown in the weakening of services needed for development and in the continuance of activity, such as promotion credit, technical assistance and technological transfer. For example, the credit service has not been substituted by the supply of private agents, who also encounter high risks in this kind of investment. Technical assistance was often the responsibility of input-distributing companies, whose main goal is trade.

There are some exceptions to this overall pattern of behaviour of weakening in the use or quality of services. This may be explained by transfers from either government or international cooperation that enable organizations to maintain and even improve the quality of services, such as in Chile and El Salvador. Chile's sectoral policy is an exception to that of most of the countries. This is because it explicitly promotes development of new agribusiness linkages, with the active participation of private firms and governmental organizations that aim at implementing technological innovations and entrepreneurial management.

Other interesting exceptions are observed in the cases of the Salinas dairies and Moras del Oriente in Colombia. Here, the private agents have met the need for services in technology transfer, technical assistance, training and credit. Regional universities and other horizontal organizations, such as service cooperatives, play an important role in this respect. The lack of financing has been supplemented by associative arrangements. In the two cases, there are precedents of associative tradition, led by the church or private agents. In Antioquia, Colombia, there is a history of cooperation inherent in the colonizing population of Spanish origin, who are free of all master-slave relationships.

In a positive light, new spheres of direct or indirect government intervention have influenced agribusiness linkages through promotion and development at a commercial level. Governments in general have supported efforts to develop international markets, as well as the use of information to reduce the risks to and vulnerability of producers. Chile shows this kind of evolution in agribusiness linkages with strong intervention from the government or entities that participate in these kinds of programmes backed by the government. This has led to the use of new entrepreneurial skills by producers and organizations in planning production, purchases and, similarly, requirements in inputs and other services.

In addition to the above-mentioned aspects, there new forms of public and private agreement for the modernization and competitive advance of agro-industrial chains that have directly or indirectly affected the progress of the agribusiness linkages. This has occurred in agreements and tables of competitiveness by chains (such as in Colombia) or by segments (as in the agro-industry in Chile), as well as with alliances for productivity and competitiveness. New instruments have been created for this purpose, such as competitiveness funds or parafiscal funds. Promotion policies have been adopted, favouring added-value processes with transfers of taxes to innovation programmes and development of the agro-industrial chain.

Because of these processes, initiatives to fill gaps in the supply of credit have emerged. They have done so through the development of savings and local credits, such as in the Salinas dairies and Moras del Oriente, or through direct negotiation with international cooperation programmes, as in FECHOAGRO. Other emerging agribusiness linkages in a context of reduced government involvement are: the leasing of machinery; the selling of services – processing (Chile and Argentina cases), informative, accounting and legal consultancy (in Chile and El Salvador); and redistributive programmes, such as buying land for collective use in Ecuador and Argentina.

Commercial development from the agribusiness linkages deserves special mention. The organizations that have emerged or that have persisted in the last ten years should explicitly consider commercial policy in order to facilitate access to markets. Practically speaking, this need has been a driving factor for associative organizations. In the cases analysed, the commercial development achieved by cooperatives in Argentina, Chile, El Salvador and Guatemala stands out.

In sum, macroeconomic and sectoral policies, as well as the external surroundings, have been predominantly adverse for the development of agribusiness linkages in which small producers participate. This has been a consequence of the revaluation of national currencies, the loss of competitiveness for most countries, and the loss of value of their export products. Another reason is that governments have reduced their intervention in essential aspects of production such as financing for development, research, technology transfer and technical assistance, without any compensation for this deficiency by private agents.

In all the cases studied, countries with a clear development policy, such as Chile, have managed to become successful and overcome adverse conditions through wide international cooperation that supplements government deficiencies. These countries have approved advances planned by the same sectoral policy to enlarge the private sector's role.

In six of the cases studied, some products have targeted market niches that support the product value or that satisfy the domestic demand that could not be met by imports. They have been successful both in their impact and at economic level. At the same time, forms of organization with cultural influence (through religious intervention or associated heritage) may help offset the effects of adverse policies.

### *Agribusiness linkages in sectoral policies, and the cases studied*

In different countries, there are degrees of variables relating to agribusiness linkages with sectoral policies. In general, all of the countries agree on maintaining some level of support at the technological level for primary production. This is shown in a higher frequency of agribusiness linkages between productive organizations with government entities that provide this kind of service through technical assistance and, mainly, training.

It cannot be affirmed that all of the countries have a clear and defined policy with regard to the support and promotion of agribusiness linkages. As mentioned above, countries have attempted to advance competitiveness agreements and public and private alliances

for the main agriculture and agro-industry sectors. In order to consolidate organizational experiences, many countries have approved some or many of the designed instruments.

Chile is an exception among the countries analysed. Consultants find that Chile has had a solid macroeconomic environment in the last 20 years that has enabled the efficient operation of sectoral support instruments such as the Production Promotion Cooperation (CORFO). This has reintegrated exports from the Trade Promotion Board (PROCHILE), provided cofinancing for medium-scale and large irrigation works, cofinanced promotion programmes, developed the port infrastructure, and modernized customs and bank procedures.

In Chile, these are cases that have benefited from a clear political and economic definition of support to agro-industrial processes within the framework of commercial opening. This is demonstrated in the development and drive of agro-industrial chains and linkages with small producers. To this end, the Institute of Agricultural Development (INDAP) promotes specific programmes to stimulate contract agriculture. Agrochile, an organization created in 1999, has emerged as a platform of entrepreneurial support for small producer organizations.

With the support of the INDAP, COOPEUMO funded a strategic study for the organization of smallholder production and a market study to support the marketing of smallholder production. Through technology transfer programmes and as a result of the market study, a point of direct sale for fruit marketing was established, with the partial financing of fruit and vegetable packing. With the CORFO, a project dedicated to fruit marketing was approved. With the support of PROCHILE, the cooperative undertook an export mission to the United States of America and also increased its efforts to promote direct foreign trade.

In turn, the Chacay Cooperative participated in a programme of Promoción de Alianzas con Agroindustrias (Promotion of Agro-industrial Alliances), led by the INDAP in the 1990s. This programme created a favourable environment for the creation of agro-industrial linkages between private-sector businesses and smallholder organizations. The producers joined in this network, which facilitated the implementation of agreements and alliances with agro-industries that process frozen foods.

Another case with a clear policy of agribusiness agreements is Azules from El Salvador. The public sector promoted a set of actions through the Ministry of the Economy and the support organization for small and medium businesses. In turn, the Ministry of Agriculture promoted a reconstruction programme and restructuring of the agriculture sector, with indigo as one of the main lines of promotion. As well as various institutions and development projects, private enterprises expressed their interest by reviving indigo cultivation. In this way, a support group was formed with the participation of public and private organizations and international cooperation. Institutions for negotiation and trade were created through this support group.

Colombia also has a clear formulation of agreement policies and commitments to competitiveness at the chain level. However, such agreements have been carried out with different levels of priorities and commitment. In the cases analysed, the competitiveness agreements are recent. They generally deal with localized efforts in which producers and recognized processing and marketing enterprises participate.

In the Colombia cases, the enterprises link with Proexport, an organization that includes export promotion programmes for small and medium enterprises through Expopyme. Within the framework of this programme, the development of foreign markets is promoted and credit provided.



In other cases, sectoral policies have supported agribusiness linkages less clearly. For example, the National Institute of Agricultural Technology (INTA) in Argentina has played an important role in creating FECOAGRO, and in the skills-building, training and learning policies in various social and productive fields. Two state programmes have enabled the basis of support to be created for FECOAGRO: Unidad de Minifundio and the Pro Huertas. Both programmes intervene in three fields supporting cooperatives, namely: technology, organization and trade.

Similarly, in 1987, the Unidad de Planes y Proyectos de Investigación y Extensión para Productores Minifundistas was created. This has formulated a support project for cooperatives from San Juan. The Pro Huertas programme supplies food in suburban areas that lack basic essentials. Within the framework of this programme, FECOAGRO designs and trades collections of different seeds.

Another interesting policy supporting FECOAGRO is “tax deferment”. This entails using fiscal resources to acquire lands for cooperatives. The Law of Industrial and Agricultural Promotion envisages the possibility that added value and income tax be invested in agriculture projects, as in this case, and in land purchases for productive use.

Finally, in the cases of Ecuador and Guatemala, the greatest involvement has been shown by international cooperation, and in a complementary way, by the respective governments. The main motivation is to combat the serious problems of poverty, misery and malnutrition. This aim is also shared by governments through their sectoral policies.

## **TYPES OF AGRIBUSINESS LINKAGES IN THE CASE STUDIES**

Table 9 shows the kind of linkages observed in the case studies. As expected, all cases have basic linkages between the producer and the formal or informal organizational structure. In 3 of the 12 cases, this structure is mainly commercial, that is, for export. In eight cases, there are structures that mainly carry out some kind of processing prior to trade, and in one case, the structure focuses principally on providing production services.

The second type of agribusiness linkage generalized for all cases is between the organizational structure and the following link in the chain, which could be either the processing or the domestic or foreign trade of the product. With the exception of one case, most do not participate in this link at the property level. These are relationships established through the market or occasionally through the mediation of promotional organizations at national or international level.

The following linkages in order of importance were set up between the organizational structure and government and third parties, other than traders. Although it was hoped that in all cases there would be some kind of linkage with government, this did not take place in two of the cases. In the other cases, the linkage is not equally intense; in at least four cases, it is a weak, sporadic and tangential relationship. Mainly, it is with the cooperatives and the initiatives that have to deal with catastrophes, as in Central America, where linkages with government are strongest.

For-profit organizations generally resort much less to government support and even that of private enterprises. In some cases, this is because there are policies of minimum administrative expenses, whereby producers have to address their own needs.

Linkages of the organization with third parties are established to complement the provision of services to beneficiaries, mainly in programmes of technology transfer, technical

TABLE 9  
Types of agribusiness linkages

Organization	FECOAGRO	COOPEUMO	Chacay	Cassava	Salinas	Uchuva	Blackberries	APILAC	Cuatro Pinos	El Limón	Azules	SOCOAGRO
Producer with processing or trading org.	X	X	X	X	X	X	X	X		X	X	X
Producers with investors		X				X						
Producers with services of the private sector		X	X	X								
Organization with trader for export		X	X	X	X	X			X	X	X	
Organization with local traders		X	X	X	X	X	X	X				X
Organization with non-members		X	X	X		X	X	X		X		
Organization with other processing enterprises		X	X				X					X
Organization in vertical integration with its own enterprises	X	X			X							
Organization with international cooperation	X	X			X				X	X	X	X
Organization with government	X	X	X		X		X	X	X	X	X	X
Organization with third parties	X	X	X			X	X	X	X	X	X	X

assistance, training and financing. On occasion, this involves complex linkages that are carried out simultaneously, for example, between a mixed organization that provides services or promotes a programme, the government and the organization. This type of agreement is established, as in Chile, to bring progress to new aspects that require an experimental component, as in commercial or quality development.

Considering the competitive environment and globalization, there should have been a great number of feasible, desirable or even more necessary linkages between the organization and government or third parties. Some examples are:

- a financing strategy according to the needs of producers;
- increased integration between links at the level of property;
- the design and negotiation of new contractual forms with enterprises certifying quality;
- enterprises that supply labour services or commercial organizations in export-driven countries.

However, these kinds of completely new linkages are more complementary or tangential. Most of the basic or nodal linkages are already routine. It is their content that has been more clearly modified.

An active option for development and promotion in agribusiness linkages would be the explicit promotion of those linkages that are the most promising, with the greatest potential for exchange in the chain. Within the conceptual framework, these are called “matrix linkages”.

### **Agribusiness linkages and leadership**

In the different cases analysed, one questions the role represented by leaders in the development of agribusiness linkages. The role of leaders is more striking in cases where regional chaining has an important role. It is feasible that there are areas in which there are previous exchanges of a social or associative type, and that a favourable environment is created for the role of leaders. The main examples are the Salinas dairies and Moras del Oriente; in each, one of two leaders are described who have been able to channel latent social efforts in the community for their productive use.

A different leadership situation is seen in the case of FECHOAGRO (Argentina). The leadership has emerged less spontaneously than in Ecuador or Colombia because it deals with INTA technicians, who began to work with a small number of unemployed and landless workers in 1983. The nucleus of the cooperative organization came out of this group of rural workers, landless farmers and INTA technicians.

Other cases deal with governmental or religious initiatives in which it is not the leader's profile that is outstanding, but rather the capacities in logistics, organization and implementation of the organizations that have inspired such initiatives.

### **Agribusiness linkages with governmental organizations**

Table 10 shows agribusiness linkages of the organization with governmental organizations. It considers governmental organizations, public entities and national, local and regional institutes that have established relationships in some way with the organizations analysed. The most frequent linkages are established by two groups of countries: (i) those with a clear promotion and development policy in agro-industrial and commercial programmes, such as Chile; and (ii) the Central American countries in association with or complementary to international cooperation, which acquires a prominent role.



The main support provided by governmental organizations is in the fields of training, technology transfer, technical assistance and financing. Frequently, this support is not provided directly, but rather is funded through transfers to the organization so that they themselves contract this type of service with third parties. Quality control, information, market development and business management are new fronts of governmental support. The most explicit management as it applies to training and the development of private agents has been in Chile.

### **Agribusiness linkages of the organization with the private sector**

Agribusiness linkages with the private sector mainly cover two fronts: technical and entrepreneurial. Two kinds of private enterprises participate: (i) other service organizations such as cooperatives and private enterprises; and (ii) other organizations that support rural development and rural populations, such as regional universities, technology centres and NGOs.

At the technical level, private enterprises participate in agreements with the organizational structure in order to provide inputs, technical assistance, training and technology transfer (Table 11). Commercial support responds to organizations' demand either for development and openings into new markets or for serving established markets.

Organizations with a weak or no relationship with government are those that establish most relationships with private enterprises. This kind of link does not always signify explicit contributions for the organization. Rather, they usually incorporate trade agreements in which both parties benefit jointly by participating in the agribusiness linkage, as occurs with private investors that have temporary companies or with traders that receive commission for their services.

Chile behaves rather differently from the other countries. In the cases analysed, there is significant participation of both governmental organizations and private enterprises. In this case, government favours joint action between organizations, cooperatives and private agents. Such cooperation ranges from providing inputs, infrastructure and technological aspects, to trade development and quality control.

### **Linkages of organizations with international cooperation**

International cooperation should be highlighted because of its importance in some countries. This support usually emerges after extreme situations of poverty and violence, as in Central American countries. Up to a certain point, international cooperation manages to counteract the breakdown of direct state intervention as its support extends to supplying donations to promote programmes for improving living standards and directly supporting production.

In three cases analysed, international cooperation played a leading or prominent role in creating associative organizations. With this goal, it provided support to creating organizational structures, financing for infrastructure and resources for producers.

The scope of the research does not allow for the precise evaluation of changes that have occurred in the linkages with international cooperation. However, the cases analysed reveal that there have been modifications in order to privilege entrepreneurial management. For this reason, international cooperation currently emphasizes support for collective negotiation, business management, the use of information tools, training and trade development.

FECOAGRO is significant for its synergies between international cooperation and small producers. In 1993, this organization directly negotiated a financing agreement and

technical cooperation with the Inter-American Development Bank (IDB), which resulted in a microentrepreneurial credit system. However, it is necessary to evaluate the sustainability of these direct agreements in a critical macroeconomic situation as is currently the case in Argentina.

Owing to time and budget limitations, the study could not examine other consequences of international cooperation, such as the religious nature of many of these organizations and their likely impact in terms of values and culture on the schemes and on own perceptions and the development of agribusinesses.

### **Linkages of the producer with the organization**

In the cases studied, the most important relationships to the producer are those formed with the organization. The organization could be more or less inclusive, as it offers a large range of services and possibilities to its partners. As shown in Table 12, the most important service and the one that almost all organizations offer their beneficiaries is marketing. The other services in order of importance are: technology transfer, technical training and technical assistance.

The organizations that offer the greatest diversity of services to beneficiaries are the cooperatives in Chile, thanks to their closer and more comprehensive public–private interaction. Ranking second are organizations that have developed associative and regional linkages, as in the Salinas dairies, the cooperatives of Argentina and the blackberry producers, and those that provide their services in an endogenous manner, on location. Next in importance are organizations that benefit from special assistance programmes and national and international support, as in Central America. Finally, there are private organizations that produce cassava, uchuva, chilli and lemon.

Innovations in agribusiness linkages are generally transmitted from an organization to beneficiary producers. New services offered include: information; support to production planning according to the market; access to a redistributive land market; and legal and accounting support.

Quality control deserves to be highlighted. To the extent that markets are becoming more demanding or that production is targeting the international market, the organization has a greater role in product quality, from the raw material to the final presentation. Accordingly, there has been progress in the development of the necessary incentives (laboratories for quality analysis), in standards and in a system of incentives and sanctions. Prominent cases in this sense include FECOAGRO, Chacay, uchuva and Azules.

### **Linkages established directly by producers**

Services that should be given by the organizational structures to producers are obtained partially through third parties. In these agreements, innovation is virtually non-existent between producers and third parties. Services are used to supply the essentials for production, such as financing, inputs, technical support and marketing (Table 13).

Given that particular use of services usually incurs great costs to producers, supply is restricted, occasional, or not always favourable to the producer (e.g. in agreements with dealers). As occurs with some cooperatives, e.g. COOPEUMO, sales from members to private traders have a negative effect on organizations because they break established trust agreements.

TABLE 12  
Linkages between the producer and the organization

	FECOAGRO	COOPEUMO	Chacay	Cassava	Salinas	Uchuva	Blackberries	APILAC	Cuatro Pinos	El Limón	Azules	SOCOAGRO
Planning	X	X	X		X	X			X			X
Collection									X			
Technical training	X	X	X		X	X	X			X	X	X
Managerial skills-building	X	X	X		X							X
Technology transfer	X	X	X		X		X	X	X	X	X	
Financing	X	X	X	X	X		X					
Inputs provision	X	X	X		X		X		X			X
Leasing machinery	X	X	X				X		X		X	
Quality control	X		X			X		X	X			
Quality certification			X					X			X	
Organizational support			X		X		X		X		X	
Information	X	X	X		X		X					
Business management	X	X	X		X		X		X			
Written contracts			X						X			X
Marketing	X	X	X	X	X	X	X	X	X	X	X	X
Diversification	X		X	X	X	X	X					
Land redistribution	X			X	X	X						
Legal support			V									
Accounting support		X										

TABLE 13  
Linkages established directly by producers

	FECOAGRO	COOPEUMO	Chacay	Cassava	Salinas	Uchuva	Blackberries	APILAC	Cuatro Pinos	El Limón	IAzules	SOCOAGRO
Linkages with the private sector for support services												
Collection									X			
Technology transfer			X									
Input supply				X	X	X	X	X				
Skills building				X		X						
Technical assistance				X					X	X		
Quality control												
Financing		X		X		X	X	X				
Organizational support		X		X		X			X			
Marketing		X		X	X	X	X					
Commercial development									X			
Information		X			X	X						
Legal support					X	X						
Accounting support					X							

## **IMPACT OF AGRIBUSINESS LINKAGES**

### **Impacts at producer level**

In all the cases studied, it is agreed that agribusiness linkages associated with an organizational structure enable improvement in the producer's negotiating ability (because profitability is higher). This occurs because either the prices obtained are higher or the costs of inputs and services are lower prior to collective negotiation, or because technical support enables higher levels of productivity.

The second favourable aspect seen in all cases is that there is the opportunity of participating in decision-making in production and even negotiation. This is explained by the existence of a participatory structure that prevails in most organizations, or by the same activity developed in order that the producers improve their capacity for entrepreneurial management. For this reason, the structure becomes more active.

Another overall impact of agribusiness linkages for producers is their capacity to have a positive effect on the regional workforce and the use of family labour (Table 14). There are other particular effects that influence the living standards of beneficiaries according to the circumstances of the regions. For example, in some countries, favourable effects are evident in nutrition, education, health and housing.

Some organizations advance explicit programmes of health, housing, female employment and infrastructure. Examples include FECOAGRO (Argentina), the Salinas dairies (Ecuador) and Moras del Oriente (Colombia) where the support programmes aim to improve the service infrastructures of the district or locality (Table 15). This seems to be a specific pattern for areas that develop or have horizontal chains, which at the same time enable the construction of positive externalities for producers, organizations and their families.

In general, the impact observed in the linkages on the supply of manual labour is minimal. Traditional conditions of predominantly family labour prevail in the primary link. This link of artisanal processing does not require particularly skilled manual labour. However, different organizations are concerned with improving product quality; this is why they resort to training to improve processes. In cases using industrial technology to adapt to or process products, skilled manual labour is required, but only in a small amount and, therefore, linkages do not need to be created.

### **Impact at the level of the producers organization**

Agribusiness linkages may have an impact by developing new skills in the organizational structure and at the economic level. With regard to the former, it was not possible to evaluate this subject matter in all its dimensions. However, in the aforementioned case studies, almost all the associative organizations have had to develop skills in business management and organizational capacity in order to progress on three fronts: (i) planning production at the level of associate producers and the organization group; (ii) associated with point (i) is the adoption of explicit policies of commercial development that require advances in product quality, either raw or processed material; and (iii) strategy development to face growing risk at both associative and individual level.

In relation to the first point, associative organizations must commit to buying volumes with remunerative prices and advances in order to be successful. However, they need to increase demands on coordinating the productive processes in such a way as to obtain the volumes and qualities programmed in a timely manner. To achieve this, a strategy is established involving sowing programmes and providing inputs, capital, technical assistance



TABLE 14  
Linkages with programmes for improving living standards

	FECOAGRO	COOPEUMO	Chacay	Cassava	Salinas	Uchuva	Blackberries	APILAC	Cuatro Pinos	El Limón	Azules	SOCOAGRO
Programmes:												
Education	X	X			X		X		X			
Housing	X	X			X		X					
Health	X				X				X			
Employment of women			X		X	X	X	X	X			
Employment in the region	X	X	X	X	X	X	X	X	X	X	X	X
Infrastructure:												
Schools							X					
Electrification							X					
Aqueduct							X					
Telephone							X					
Roads	X	X			X		X					
Transportation					X		X					
Others	X											

TABLE 15  
Impact of agribusiness linkages on beneficiaries

	FECOAGRO	COOPEUMO	Chacay	Cassava	Salinas	Uchuva	Blackberries	APILAC	Cuatro Pinos	El Limón	Azules	SOCOAGRO
Increased income	X	X	X	X	X	X	X	X	X	X		X
Stable income	X				X		X	X	X			
Higher educational level	X				X		X		X			
Higher nutritional level				X					X			
Health	X					X	X		X			
Housing	X			X	X	X	X		X			
Car						X						
Employment generation	X	X	X	X	X	X	X	X	X	X	X	X
Managerial ability	X	X					X					
Management	X	X		X	X	X	X		X	X	X	X
Negotiation	X	X		X	X	X	X	X	X	X	X	X
Participation in decision-making	X	X		X	X	X	X	X	X	X	X	X
More competitive farm	X	X						X				

and other necessary services such as irrigation and transportation. The permanent use of information is an important requirement forcing the producer and the organization to develop appropriate skills.

The second aspect, trade development, means that both the associative organization and the producers show negotiating skills to secure factors and services to produce at the lowest cost and highest quality while placing their final products on the market in favourable conditions. Collective negotiations have proved to be an efficient instrument, as FECOAGRO has shown in collective negotiation of an incentive credit with the IDB, and land negotiation in favourable conditions. They have also shown, more typically, organizations that purchase inputs directly at the producing or distributing companies.

The third aspect of developing managerial skills is reducing and preventing risk. The strategies involve primary production, the processing stages and final markets. In this way, producers diversify productivity, while the associative organization diversifies the range of products processed or traded. It also diversifies uses and final or intermediate product markets. In addition, this may involve creating risk, stabilization and compensation funds. In general, the organizations have intervened actively to encourage diversification of primary production, of product use, and of markets.

Associative organizations have also been developing skills in managing relationships, as shown in agribusiness linkage diversification. They have done so in order to extend to other segments of the productive chain, towards other similar organizational structures (cooperatives that negotiate with each other), and third parties, including international cooperation. However, these changes have not necessarily modified the administrative structure of the organizations towards more bureaucracy. On the contrary, in some organizations the administration has been simplified while the demands on the managerial staff functions have increased.

The economic results in the agribusiness linkages analysed are positive in 8 of the 12 cases analysed (Table 16). The main feature of the economically successful organizations is low

TABLE 16  
Economic impact of agribusiness linkages

	Positive	In the process of restructuring	Negative
1. Argentina			
FECOAGRO	X		
2. Chile			
COOPEUMO Limitada	X	X	
Chacay Cooperative		X	X
3. Colombia			
Moras del Oriente	X		
Uchuva exporter	X		
4. Costa Rica			
APILAC	X		
5. Ecuador			
Agribusinesses in Manabi	X		
Community dairies in Salinas	X		
6. El Salvador			
Azules	n.a.		
SOCOAGRO		X	X
7. Guatemala			
Cuatro Pinos cooperative		X	
El Limón cooperative	X		

administrative costs with regard to service provision. This is because of receiving a subsidy or financing from government or international cooperation. Alternatively, they might not be in receipt of a subsidy, or their service provision is carried out through third parties. Another characteristic common to most of the case studies is that the final market is mainly domestic or has less-competitive special niches in the foreign market.

In the cases with negative economic results or that have required restructuring processes, it is mainly organizations that have been affected by difficult market situations and/or administrative problems.

### **CONSTRAINTS ON AGRIBUSINESS-LINKAGE DEVELOPMENT**

There are limitations to the development of agribusiness linkages at all levels in the economy, in macroeconomic and environmental aspects, in managing sectoral policies, in public–private relationships, in regional conditions, and in organizational and micro aspects.

Macroeconomic policies and their environment can inhibit the development of agribusiness linkages as can economies where the national currency undergoes persistent revaluation. There are also low rates of economic growth and employment-generation to consider. The main adverse effect is observed in the poor economic results of the organizations that therefore have to restrict or eliminate emerging linkages that profit from great innovative ability but which can initially entail high costs to the organization.

At the sectoral level, there is no explicit policy to support innovations that can give rise to matrix linkages and a complex network of favourable interactions for agribusiness agreements. Small producers frequently do not benefit from basic research in different fields or innovative pilot programmes aimed at promoting competitiveness with respect to other entrepreneurial producers. In the cases studied, the exceptions of Argentina, Chile and Guatemala only highlight the urgency of such policies.

Most of the countries analysed have formulated an active policy to foster competitive agreements with greater involvement of private enterprises in advancing productive chains. However, there is a lack of the active interaction that should establish synergies between the public and private sectors for the benefit of small producers. A positive intervention in this sense means that the public sector actually promotes those agents with the capability of setting up the links required in agribusiness linkages (in certification, quality control, transportation services, financing, etc.). Similarly, within the framework of a relevant incentive policy, private agents could take on risks after a pilot stage has shown the feasibility and convenience of their intervention.

Prevalent poverty and misery in most countries, particularly in rural areas, are other conditions that have a negative impact on the efficiency and cost of agribusiness linkages. The very benefits of the agribusiness linkage consist in rectifying the precariousness in living conditions through programmes to improve nutrition, health, housing, etc. In addition, the low living standards of producers and their families means they are not able to accumulate or invest. Incomes are frequently directed towards remedying deficiencies in health, housing, nutrition and infrastructure.

Moreover, consideration should be given to the great gaps and deficiencies in the education and skills of the population, workers and rural owners in most countries. An indispensable condition to rectifying such gaps entails stabilizing the progress obtained in the long term from the innovative agribusiness linkages.

At the most individual and micro levels, associative organizations are limited in their negotiation ability *vis-à-vis* agents with better capabilities and greater economic power, such

as supermarket chains, large processors and international dealers. Contractual development could incorporate aspects of participation of these associative organizations, which could be more explicit where negotiation is asymmetric. It is also necessary to develop skills in export procedures and commercial development in general.

Included among the major constraints on agribusiness linkages are informality and benefits offered to agents concerning tax evasion and the use of economically favourable conditions. In some cases of exports, the recent crises in foreign markets have enforced readjustment and limited the type of linkages that have been developed successfully.

Finally, there is a lack of clear criteria that enable associative structures to formulate priorities in the form and content of agribusiness linkages, such as costs that may arise. Most of these structures behave like beneficiary producers, through trial and error. Systemizing essential experiences in agribusiness linkages could help them to evaluate different intervention possibilities that are public or private, endogenous or exogenous to the organization or fundable by the government, the associative organization, producers, or jointly.

## **EVOLUTION IN THE CONTENT OF AGRIBUSINESS LINKAGES**

With regard to the cases analysed, the themes discussed in this section are:

- Do agribusiness linkages in which small-scale producers participate change towards a more complex structure in accordance with the increased requirements of a globalized or competitive environment?
- Which factors influence changes in agribusiness linkages?
- How do they affect the primary producers and their standard of living?

In general, in all the cases, there are two nodal or main agribusiness linkages: (i) the linkage between the producer/processor enterprise and the trading enterprise; and (ii) the linkage between the processing enterprise and the trading/marketing enterprise. These nodal axes define the type of contractual agreement and the network of relations involved.

In addition to nodal linkages, there are other agribusiness linkages that could be called “emerging” either because they depend on core linkages or because they are complementary, marginal or have recently begun to emerge. These collateral linkages can be exogenous to the associative organization, in which case this is the one that establishes these links, or endogenous to the organization, with the organization frequently in the role of intermediary.

Table 17 shows the types of agribusiness linkages and their configuration. It is in the emerging linkages where the main innovations regarding agribusiness linkages occur. The linkages are included to the extent to which they are observed in some of the cases studied and have great potential for development in the future.

The following fronts of innovation in agribusiness linkages are highlighted:

- Service provision to producers and enterprises: these are services for the chain, cold-storage facilities, transportation, and collection. They include processing, packaging and labelling.
- Trade support and development. This includes links with marketing chains, such as supermarkets, with foreign commercial enterprises, and creating complementary alliances in order to improve marketing conditions.
- The integration of links in the agro-industrial chain. It incorporates services to the cold chain, transport, packaging and promoting agro-industrial exports.
- Investment. This includes private investors connected with the associative enterprise directly and/or with producers. There are also new forms of investment and supply of productive factors, such as the leasing of permanent crops.

TABLE 17  
Change in the content of agribusiness linkages

Type of linkages	Changes in the content of agribusiness linkages	
1. Associative organizations with:	Traditional	Intensified since 1990s
1.1 Producers	Providers	Companies or businesses or contracts
1.2 Input providers	Individuals – private sector	Organization cooperatives
1.3 Credit organizations	Promotion	Weakening; credit for innovations
1.4 Private investors	Capital	In companies with processing agents
1.5 Governmental service organizations	Direct supply of technical skills-building assistance	Supply through third parties; widening information, management development, foreign markets, entrepreneurial
1.6 Private service organizations	Inexistent or non-specialized service	Specialized service; transportation; cold storage; packaging and storage
1.7 Marketing agents	Individual dealers	Entrepreneurial service from the supermarket chains, institutional sector, 2nd-generation processors
1.8 Second-level processor enterprises	Industry	Supermarkets, exportation, organization products (maquilas)
1.9 Institutions providing organizational support	First level (associates)	Second level (cooperatives or service enterprises)
1.10 Entities of international cooperation	Donations	Specific objectives (management, training, etc.)
1.11 Agents that improve the living standards of the producers	Mainly family unit	Extended up to the community, infrastructure and education
2. Producers with:		
2.1 Associative organizations	Immediate supply	Futures contracts, specifications of quality and quantity
2.2 Private investors	Sporadically	Shared risk, specific investment lines.
2.3 Entities of promotion credit	Primary stage	Processing agent; other segments of the chain
2.4 Input providers	Individuals (private sector)	Cooperative or associations; agreements with warehouses
3. Investors with:		
3.1 Producers	Sporadic	Permanent, against supply contracts, agreements of future provision, supply of capital
3.2 Processor agents		

In general, where processes are artisanal and targeted directly towards the domestic market, innovations in agribusiness linkages are minimal. When the process stops being artisanal and incorporates an industrial process, it is integrated to links subsequent to the processing, and the products are intended for the international market or modern market niches. This is when a greater frequency of new agribusiness linkages is observed.

Through more decisive intervention by government and private agents, the possibilities of emerging agribusiness linkages are extended towards more diverse, non-traditional areas. Examples include: the development of services to the chain, such as transportation and cold-chain services (Chile); the use and supply of information (Chile and El Salvador); new credit and savings methods (Colombia); risk prevention (Colombia); quality control (Chile); and new forms of land access (Colombia).

These emerging innovative linkages become consolidated while becoming institutionalized and formalized. Therefore, they receive public and private assistance in financing, regulation, infrastructure and technology. This behaviour is clearly illustrated through cases in Chile, where there is a wide variety of institutional, normative and instrument support in policies and promotion plans.

On the other hand, a lack of support and policy definition leaves innovative linkages at a purely experimental or trial stage. This is what has occurred, for example, with the leasing of permanent crops, a method observed in Moras del Oriente. When innovative agribusiness linkages emerge spontaneously and have no public or private institutional support, they become highly vulnerable and may not last.

Other aspects of developing emerging agribusiness linkages arise with other second-level or second-generation processing enterprises, which satisfy the need to specialize the supply for new segments of the market (e.g. domestic market for the consumer, and foreign markets).

The other alternative of the agribusiness linkage is the supply of new services for the associative organizations, geared towards satisfying greater market demands. These include: collection services, packaging, specialized transportation and cold-storage services. An interesting linkage relates to investors that expand the activity of processing enterprises through fixed-term companies. These companies can decide on the investment needed to increase the supply for a potentially attractive market and can involve small producers that lack capital.

As already pointed out, other environmental aspects play an important role in connecting emerging new linkages. These include progress in the level of education and skills of the labour force, the development of domestic markets, and special market niches at international level.

**The content of the agreements** is another significant object of change and evolution. The most substantial innovations in agribusiness linkages are seen mainly in the content of the contracts rather than in the emergence or disappearance of linkages. Table 17 summarizes the content of agribusiness linkages and highlights the trends.

More than ten years ago, producers operated more like simple providers as the level of market demand was different. Today, the relationships between the producer and the associative organization are more contractual than some years ago. This means greater commitments in terms of quantity, quality and specified delivery times. Nevertheless, the supply contracts and even the affiliation contracts at the organizational structure are verbal in most cases. However, almost half of the organizations have defined the possibility to stipulate written agreements, according to the beneficiary's preference.

**The quality and quantity demands** are greatest when dealing with products for export or established markets, such as chain or institutional warehouses. At the same time, the associative organizations must guarantee the sale of the entire volume previously agreed on at paid prices in relation to quality. These mutual agreements of quantity, quality and paid prices increase the risk situation for both parties participating in the agribusiness linkage. Producers and organizations have subsequently had to increase their managerial skills in planning production and input supply, such as seeds and fertilizer. In four of the cases analysed, sowing is planned in advance. The producers receive training in business management. In four other cases, the planning aims at avoiding oversupply with a strategy for diversifying activities.

**The fronts of intervention of associative structures** have increased in diversity and complexity, while needing to offset the current deficiency of government. In the cases with the greatest range, the associative organizations serve virtually all basic fronts, not only production, but also family well-being. They have also had to adopt agile mechanisms in order to rectify some gaps. For example, in credit, associative structures frequently have to act as the intermediaries and/or guarantors on behalf of credit organizations that find themselves at a high level of risk in agricultural production.

**Negotiations** with highly competitive commercial structures affect associative organizations as well as producers by incurring transaction and non-direct trade costs, e.g. late payments extended for up to one month; commission payment to be part of the group of providers; and funding promotion campaigns carried out by commercial chains. In the same way, the cooperatives lose competitiveness in relation to their member providers while other individuals are able to pay better prices or make cash payments.

From the case studies, there was no evident **availability of incentives and sanctions** to enable members of organizations to face unfairness and low-commitment situations. On the contrary, in various cases, the cooperatives have experienced critical situations and have had to restructure. Even today, Chilean cooperatives need to face the negative effects of competition from individual traders. These weaknesses seem to come from the arrangements or agreements themselves in which informality prevails, such as in most cases studied. On the other hand, Azules, El Limón and the Salinas dairies have established unequivocal obligation agreements in sales and quality requirements that envisage sanctions.

Changing trends can also be seen in the important nodal linkage between the associative organization and traders. The commercial agents that operate individually tend to substitute for marketing enterprises that are able to actively intervene in the management of product sales, through transportation, packaging, labelling, quality control, and, occasionally, credit supply to finance previous commitments or carry out maquila agreements with the processing organizations. Supermarket chains can be included here. Their intense competition has led them to make incursions into food processing to be sold under their own brand through maquila contracts. Alliances with other enterprises that are eventually set up to complement the activity can also be included here.

Governments used to be the main agent participating in the emerging traditional linkages. Until two decades ago, they directly supplied services such as technology transfer, technical training, technical assistance and subsidized credit. Substitution by private enterprises was foreseen in this kind of service. However, this has frequently failed to materialize or the substitution has been partial or sporadic. Governmental readjustment is shown in the partial financing of some services through third parties. In the new emerging linkages, government participates partially in some activities that it considers priorities, such as market and information development. Other new linkages have been advanced by private initiative, even without enough width or coverage.

A particularly interesting aspect where major advances have not been observed is in the development of the **contractual design of businesses**, notwithstanding their greater complexity. In fact, informality is all pervasive, becoming a prohibitive factor for developing agribusiness linkages while different agents weigh the conveniences of modernization with the advantages of staying at the margin of the legal and/or tax systems (lower costs).

The contractual development of agreements with the kind of linkages should be pointed out. The relationships between organizations and third parties are normally carried out formally through written agreements. In relationships between producers and the associative organizations, there is a combination of informal, verbal and formal written agreements. While the associated producers establish relationships with third parties, informality in associative structures (as has occurred with some cooperatives) has a negative effect on the agribusiness linkage.

**The changes in the content of agribusiness linkages** have driven the development of learning and skills of both the associated producers and the organizations. This relates to planning, risk forecasting, quality control and designing mechanisms to make proper use of existing resources.

Research has not succeeded in evaluating some aspects of agribusiness linkages that are important for establishing their strength and sustainability in the long term. In order to achieve this, it is necessary to establish: the costs for each of the parties; the capacities of the associative organization and the producers to finance said costs; the benefits recorded; the quality of the linkage; and the possibility to replicate the most successful linkages for other groups of producers.



## Chapter 3

# Agribusiness linkages in the selected countries

## ARGENTINA

### Federation of Agricultural Cooperatives of San Juan

FECOAGRO is a second-degree cooperative made up of 25 first-degree cooperatives with 400 families of small agricultural producers. These families have decided to go ahead with an ambitious project of organization, training and technological incorporation (Table 18). FECOAGRO was founded in 1992, with the aim of increasing incomes through improvements in production, productivity, trade and lines of diversification. Its scope includes improving family living standards.

The Province of San Juan in northeast Argentina is the sphere of influence where FECOAGRO was created. It borders the Andes and is characterized by a mountainous geography and an arid climate. At the production level, its tradition has been viticulture, with 70 percent of the area under cultivation in the province. Next in importance is olive cultivation for the olive-oil industry and preserved olives. In the past, the area included grape-growing and wine-production cooperatives that were unable to implement technical modernization or product diversification. Moreover, the associates had no trust agreements with cooperatives at the commercial level.

In this context, a group of agricultural technicians (extension workers) started to work with a small number of unemployed and landless rural workers in 1983. These technicians belong to the Rural Extension Agency of the INTA. This is a national governmental organization that works in agricultural research and extension and contributes to improving the living conditions of rural producers and their families.

The need arose to promote the integration of producers as a way of improving the situation of smallholders in the province and of diversifying production by alternatives

TABLE 18  
FECOAGRO agribusiness linkages

Linkage	General objective
1. FECOAGRO – associated cooperatives	Organizational, family, productive support
2. Cooperatives – associated	Organizational, family, productive support
3. FECOAGRO – national government	
3.1 INTA	Technology transfer support and training
3.2 FECOAGRO – Pro Huertas	Food supply programme
4. FECOAGRO – International cooperation	
4.1 FECOAGRO – IDB	Financing
5. FECOAGRO – individuals, private sector	
5.1 FECOAGRO – Agrarian Federation	Commercial diffusion
5.2 FECOAGRO – Credicoop	Financing
5.3 FECOAGRO – University of San Juan	Training courses
5.4 Rural Agro-industry network (REDAR) / PRODAR	Commercial events

TABLE 19  
**Agribusiness linkages – FECHOAGRO and producer**

1. Agricultural credit
2. Technical training
3. Managerial training
4. Technical assistance service
5. Quality control programme
6. Marketing
7. Product diversification
8. Redistribution programmes
9. Collective negotiation of inputs
10. Collective negotiation of consumer goods
11. Machinery and equipment service

such as medium-large cotton fibre, horticultural seeds, aromatic plants and grapes. Accordingly, an organizational initiative was founded by a group of rural workers, landless farmers and INTA technicians. In 1983, the “*Unidad de Planes y Proyectos de Investigación y Extensión para Productores Minifundistas*” (Plans and Projects of Research and Extension for Smallholder Producers), a cooperative entity of

the INTA, was created. It provides significant support in financing organizational projects such as those of the cooperative.

Substantial importance was first given to training in a wide range of subjects. To this end, support was granted by the Universidad Nacional de San Juan, INTA, Federación Agraria Argentina and Dirección Provincial de Cooperativas.

The main services offered to the producer are: marketing, acquisition of inputs at a low price, machinery, equipment, credit, technical assistance and training services, and education and programmes to improve the living standards of members (Table 19). Three hundred tonnes of horticultural seed are traded annually at national and international level through the efforts of the cooperatives grouped together in FECHOAGRO. The cooperatives associated with FECHOAGRO represent 45 percent of all the onion and alfalfa seeds produced in the Province of San Juan.

In addition to those established with the partner cooperatives and other supporting cooperatives, the most important agribusiness linkages of FECHOAGRO are with government, third parties such as the regional university for education and training, Federación Agraria Argentina, and international cooperation.

In 1993, one of the interesting linkages in the FECHOAGRO case was established directly with the IDB to advance a financial and technical cooperation agreement. To achieve this, a system of microenterprise credits was implemented. This was how the entity gave a credit of US\$500 000, of which US\$300 000 went to creating a revolving fund for financing small productive projects; the remainder went to constructing its own plant for processing seeds.

Currently, the cooperatives export hybrid onion seeds to Japan and the Republic of Korea. They also export hybrid seeds of carrots, beans and flowers, among others. These exports have an external evaluator for production technology, organization and product quality. For the national market, there is great diversity in seed supply, which is increasing.

## CHILE

### COOPEUMO

The COOPEUMO cooperative is a moderately complex case in terms of agribusiness linkages. It is a rural cooperative, located 155 km from Santiago, the capital of Chile. Its purpose is to provide services to producers of avocados and citrus for export. Being close to the centre of consumption and ports of embarkation, and with good-quality natural resources, COOPEUMO is in a privileged position compared with other rural areas of the country. The cooperative was founded in 1969 as part of an agrarian reform process,

TABLE 20  
**Agribusiness linkages of COOPEUMO**

Linkage	General objective
1. COOPEUMO – associated producer	Production and family support
2. COOPEUMO – non-associated producer	Technology transfer
3. COOPEUMO – national government	
3.1 COOPEUMO – CORFO	Internal and external commercial support
3.2 COOPEUMO – INDAP	Technical, organizational and market support
3.3 COOPEUMO – AGROCHILE	Entrepreneurial support and support to domestic market
3.4 COOPEUMO – Irrigation Commission	Provide high-tech irrigation
3.5 COOPEUMO – Foundation for Agrarian Innovation (FIA)	Computer development for members
4. COOPEUMO – International cooperation	
4.1 COOPEUMO – FAO/AGROCHILE	Ensuring quality; information
4.2 COOPEUMO – IAF	Cooperative financing
5. COOPEUMO – private enterprises	
5.1 COOPEUMO – universities and private consultants	Technical support to producer
5.2 COOPEUMO – input enterprises	Trade of inputs at lowest prices
5.3 COOPEUMO – service enterprises	Transportation and cold chain
6. COOPEUMO – associated enterprises	
6.1 COOPEUMO – SENCE	Use of tax exemptions for capitalization
6.2 COOPEUMO – FRUPEUMO S.A.	Internal and external marketing

and was planned as a multiactive service cooperative with productive and consumption aspects. Following the 1973 coup, government support was withdrawn as a result of the government distancing itself from promoting and supporting rural organizations. As a result, the cooperative entered a period of stagnation between 1977 and 1980, reaching a stage of almost complete inactivity.

In 1981, a revival process was initiated and the cooperative obtained the approval of a project financed by the Inter-American Foundation. The organization began sustained growth from this matrix project, which has provided financing autonomy with a revolving credit fund and financing for operating expenses.

The cooperative's objectives are: raise rural family incomes; improve the quality of life; educate and permanently train its members to successfully take on a role in society; and consolidate the cooperative as an enterprise and service producer. In addition to having 437 active members, it assists 171 families with programmes of technology transfer (with state support).

COOPEUMO has six kinds of agribusiness linkages (Table 20). These various linkages are for supplying technical, managerial and trade support, and funding for infrastructure.

The associate producers have a wide variety of services as a result of such agribusiness linkage diversity in production, family level and redistributive type (Table 21). Despite such benefits, the cooperative faces active competition from intermediaries.

TABLE 21  
**Agribusiness linkages - COOPEUMO and producer**

1. Provide credit for inputs
2. Agricultural credit
3. Supply inputs at competitive prices
4. Technical assistance service
5. Programme for ensuring quality
6. Tax accounting service
7. Information and business management
8. Technical training
9. Managerial training
10. Primary marketing
11. Housing programmes
12. Credit for family well-being
13. Redistributive credits

These intermediaries compromise future purchasing through advances. The cooperative only markets 10 percent of production. Because of the activity of these intermediaries, there is a high degree of informality and poor marketing practices.

The cooperative has the following innovative services:

- Tax accounting service: The cooperative is responsible for providing the necessary technical assistance to comply with the social regulations of the workers, manage monthly and annual tax declarations, and maintain the producers' ongoing relationship with the accounting administrative system and with the cooperative.
- Information service: In cooperation with FAO, the cooperative Centro de Información y de Gestión Empresarial (Information and Business Management Centre) was created. This makes information available to small producers in order to assist them in decision-making. In this way, the economic results and costs of production can be predicted.

The results of COOPEUMO's action are shown in its increased productivity, improved competitive position compared with the large-sized enterprises, and more favourable prices. Another important consequence is great emphasis on added value to primary production, owing to the direct intervention of the cooperative in domestic and foreign marketing.

COOPEUMO is currently the rural cooperative with the greatest economic development in all of Chile. It has different strengths, such as its own technical team of great capacity, with the ability to design projects, establish external linkages and manage resources. However, the cooperative has had to restructure its management in the last three years owing to a loss of competitiveness by some of its lines, e.g. maize and wheat.

### **Chacay Cooperative**

The Chacay Cooperative is located 375 km south of Santiago. The area is characterized by good-quality natural resources and proximity to important consumption centres. The cooperative was founded in 1968 as part of the agrarian reform process. The cooperative was planned as a multiactive service cooperative that included aspects of production and consumption. Its initial objectives were to promote the economic, social and cultural development of its members. It attracted 2 000 members but, as occurred with COOPEUMO, the 1973 military coup weakened it. In 1990 and 1991, it became almost completely bankrupt. In 1993, 15 members decided to give it fresh impetus.

At present, the cooperative has 90 active members, but also supports technology transfer programmes with government contributions to another 70 families. It has a central head office and an agro-industrial unit for processing fresh and frozen products. The main products and services of the cooperative are: contract farming for horticultural crops and berries; processing services; and technical, managerial and marketing services.

Its main domestic markets are processing enterprises, supermarket chains, retailers, restaurant chains and hotels. In addition, the cooperative has an export market, mainly in Europe and North America.

The life of the cooperative can be viewed at different stages: the first stage between 1964 and 1973; the stagnation stage of 1974–1992; and the reactivation period from 1993, when a new technical team was organized. In 1994, the cooperative succeeded in managing an agro-industrial network with Frisac, an entity with which it initiated a first pilot experiment in agro-industrial bean production.

Under the contract method, the agro-industry alternative enabled significant economic development of the members. Then, international crises caused an overall weakening of

TABLE 22  
**Agribusiness linkages of the Chacay Cooperative**

Linkage	General objective
1. Chacay – associated producer	Productive and family support
2. Chacay – national government	
3. Chacay – government	
3.1 Chacay – FRISAC	Export support of product. Agro-industries.
3.2 Chacay – INDAP	Development of chains and agro-industrial linkages
3.3 Chacay – PROFO/CORFO	Projects of productive promotion
3.4 Chacay – PROCHILE	Support to commercial development
3.5 Chacay – FIA	Support to innovations
4. Chacay – private enterprises	
4.1 Chacay – Agro-industries (INTERAGRO, AGRINOVA, FRUSUR, ALIFRUT)	
4.2 Chacay – packers	Packaging and labelling according to trademarks
4.3 Chacay – national and international traders	

agro-industrial linkages and many important producers began to leave. This situation affected the members of Chacay as well as Frisac because the cooperative fell into an institutional crisis that intensified in 1991. It had to reduce personnel, diminish its sowing programmes under the contract method, and halt technological innovation projects. At present, the cooperative is developing a commercial plan with minimum resources and has targeted its strategy towards providing services to businesses.

The cooperative's emphasis is in contracts or linkages with agro-industries, in addition to linkages with producers (Tables 22 and 23). The economic results with different agro-industries are variable as a result of economic and market conditions. In 2000, with the implementation of the agro-industrial plant of the Chacay Cooperative, a new stage of development of the chain was put forward. In this stage, the cooperative processes a large part of production, with the emphasis on the search for markets for directly processed products.

Among the favourable effects of these agribusiness linkages are:

- For producers, income has been increased, as has their quality of life and that of their families.
- Negotiating power has improved and productive diversity has widened with more intensive land use.
- The cooperative has strengthened organizationally.
- The cooperative has increased its possibilities through agreements with the government and agro-industries.

A better quality of raw material at lower cost is now available to the cooperative.

However, some limitations have been observed. Because of the economic crisis that the cooperative has had to cope with, there is distrust among producers resulting from the reduction in prices compared with previous seasons; the producers had to bear the risks of the crops prior to the cost increase and the market uncertainty. The cooperative has also experienced problems caused by: a lack of working capital to finance production programmes; the international market crisis; arbitrariness in negotiating conditions; and slowness in administrative innovations in the face of rapid supply growth.

TABLE 23  
**Agribusiness linkages – Chacay Cooperative and producer**

1. Agricultural credit
2. Supply contracts for horticultural crops
3. Technical assistance service
4. Technology transfer service
5. Marketing service
6. Agro-industrial processing service
7. Technical training service
8. Entrepreneurial training service

## ECUADOR

### Salinas dairies

This case is one of the most representative of successful experiences of Ecuador's rural development projects. In contrast to other cases analysed, the nodal relationship is established between two communities – the Salinas community and the religious community. Many linkages spring from this relationship (see below).

In 1978, the first rural dairy was set up in the parish of Salinas, which was the initial core of Ecuador's rural dairies. At present, there are 70 rural community dairies, in which 1 200 skilled farmers work. The project plants process about 6 million litres of milk per year at the national level, with 1 200 families of beneficiary producers.

The dairies are located in the central region of the Ecuadorian mountain range. The Salinas parish has 11 000 inhabitants, of whom 80 percent are indigenous, with a literacy level of 22 percent.

Traditionally, salt mines have been worked in Salinas. In the region, large noble estates were established where the dominant wealthy family wielded great power through taxes on salt mining. Until 11 years ago, salt was one of the main economic resources. The working families lived under master–servant relationships. Therefore, their need for a cooperative arose in order to free themselves from this dependence.

In order to cope with poverty, the local inhabitants tried to organize themselves to control the salt mines and industrialize them. In 1967, an attempt was made to organize a savings and loan cooperative but this attempt failed.

These failures can be explained partly by the interference of landed vested interests, but also by many internal conflicts at social, ethnic and family level. Finally, with the intervention of Misión Salesiana and religious leaders, community enterprises began to be formed in Salinas.

The social organizations developed around these community enterprises are complex. As part of this group, the Fundación de Organizaciones de Salinas (FUNORSAL), a second-degree organization brings together 28 local organizations. It provides organizational support to the entities that group, advise and train them, and above all, improve negotiation capacity with financial institutions in order to obtain foreign assistance. It currently supports, finances and trains the local organizations according to a production diversification strategy (Table 24).

TABLE 24  
Agribusiness linkages of Salinas dairies

Linkage	General objective
1. National Consortium of Dairies – 70 associated dairies	Organizational support to dairies
2. Dairies – milk producers	Productive and social support to producers
3. FUNORSAL – organizations	Organizational support to the population
4. Savings and loan cooperatives – producers	Financial support to primary activity
5. Savings cooperative – international cooperation	Community development programmes
6. Misión Salesiana – producers	Organizational and community support to producers
7. Grupo juveni – producers	Support to productive diversification
8. Salinas trader – processors	Support to marketing
9. Minagricultural cooperative	Support to productive community development

In 1972, the savings and loan cooperation, Salinas Ltda, was organized by religious and private initiative. It has about 500 members and has advanced programmes of buying livestock and milk, building houses, reforestation, roadbuilding, community administration and mechanization, among others.

Misión Salesiana has undertaken community charity work, such as a youth home, education, infrastructure and sanitary works. In 1975, a youth group was formed to promote various productive activities including baking, pork production and sheep-rearing.

Within this great variety of mutually interlinked organizations, agribusiness linkages have been established as shown in organizational support to the producer and the community, support in training, techniques, improved living standards, production diversification, and improved infrastructure, among others (Table 25). The dairies represent one of the most important activities in this interaction. They generate an economic movement of about US\$3.2 million annually.

A distribution network has been set up. It includes a store, relations with a supermarket chain, sales through members, and sales in cooperative stores.

Among the interesting particularities of the agribusiness linkages are those for community benefit, such as property and land usufruct, and assets such as livestock, factories and stores, which are generally targeted to improving the living standards of the local population. In addition to dairies, the various community enterprises have developed many products, e.g. meal, mushrooms and other foods. These different products are traded through the Salinas trader, who seeks markets for products produced in different agro-industrial communities.

The problems facing dairies and other agro-industrial businesses relate to competition with large industries of major economic capacity in information, advertising and sales.

### **Cassava starch processors**

Sweet and dry cassava starch is produced by the starch-extraction plants (rallanderias) in the parishes of Calderón and Canuto, most of which have a semi-artisanal processing system.

The main products obtained are sweet starch from dry and wet cassava, and sour cassava starch. Various by-products are obtained from the extraction process, such as: shells that serve as animal feed; “cachaza” (residue from the sugar-cane milling operation or sugar-cane liquor), which is sold for balanced food production; and bagasse, which also serves for producing balanced food. This activity generates direct employment for about 1 380 people in the 230 rallanderias in Manabí Province. It is calculated that the rallanderias produced 2 400 tonnes of dry starch in 2001.

The initiative emerged from Ciat, Fundagro and the Instituto Nacional de Investigaciones Agropecuarias between 1985 and 1993, with the support of the Agency for International Development (AID). The backing of these organizations consisted of technical support to processing, management, skills-building and quality activities. The Cassava Producers and

TABLE 25  
**Agribusiness linkages – Salinas dairies and producer**

1.	Organizational support
2.	Financing
3.	Training
4.	Diversification of production
5.	Housing improvement
6.	Construction of regional infrastructure
7.	Technical training
8.	Marketing
9.	Community-owned lands
10.	Community assets: livestock, homes, factories
11.	Surplus re-investment for social benefit

TABLE 26  
Agribusiness linkages of cassava processors

Linkage	General objective
1. Producers	Buying cassava production
2. Processors	Buying starch for processing
2. Traders	
2.1 Locals	Selling according to previous agreements
2.2 Export	Sale on advances
3. Input storage	Provision of inputs

processors (212 rallanderias). There are also some cassava producers and processors associations grouped in a second-degree association to obtain better prices. The association has 34 members and owns a mechanized rallanderia.

The main agribusiness linkages are established between the cassava producers and the processors, and between the processors and the dealers, as well as the local processing enterprises the producers sow cassava in marginal areas; most are small producers cultivating on the mountainside, and that make verbal agreements with the processor (Table 26).

It is estimated that at least 80 percent of the processed cassava goes to the Colombian market. There are a few intermediaries between the Colombian market and the Ecuadorian processors, who also intervene in the supply for domestic consumption. In many cases, the intermediary gives an advance payment to the cassava processor, either in cash or in raw material in order to guarantee the fulfilment of the deal.

The impact of agribusiness linkage has mainly been economic. No major progress has been observed at the organizational level, except for a recent initiative of 17 producers to collaborate in order to do business with a Colombian. There have been some advances in activity planning in community activities such as peeling the cassava and modernizing the processing infrastructure. The cassava processors show that no technical assistance is required, as the process is relatively easy.

TABLE 27  
Agribusiness linkages – cassava processors and producer

1. Secure marketing
2. Advances for financing
3. Training
4. Credit

Processors Union was formed, which supported the marketing of different products. This union subsequently disappeared because of strategic problems in marketing. Once this entity had disappeared, each producer or unit had to take on responsibility for marketing the products. At present, most operate independently as cassava

In addition to cash or in-kind advances provided by intermediaries, a producers association loans limited amounts of money for six months and with a guarantee (Table 27).

## COLOMBIA

### Sumapaz uchuva exporter

About 20 years ago, primary crops were planted in the Sumapaz region in Granada, one hour from Bogotá, the capital of Colombia. In 1985, the family businesses Frutierrez and Ocatí were founded to export tropical fruit. There has been considerable expansion in the growth and export of uchuva in the last seven years. The uchuva has a special market niche in Canada, Germany, Israel and Japan. The Colombian produce stands out for its colour and flavour.

There are currently 250 producers cultivating uchuva in the Sumapaz region. Apart from the exporters, there are also small retail traders and some wholesale intermediaries that buy



TABLE 28  
**Agribusiness linkages for uchuva**

Linkage	General objective
1. Exporter – associated producer	Provision of uchuva for export
2. Exporter – non-associated producer	Occasional purchase of product at low price
3. Producers – investors	Cultivated in company
4. Producers – local traders	Cultivated in company
5. Producers – traders	Provision of inputs
6. Exporter – investors	Expand fruit supply
7. Exporter – foreign trader	Foreign selling
8. Producers – banking entity	Credit
9. Producers – landowners	Leasing land

surpluses for the domestic market. Frutierrez, the associative entity that participates in the agribusiness linkages analysed, has 50 operators in the uchuva region. In addition to uchuva, the exporters handle a group of exotic fruits for export. Average monthly sales are about 400 tonnes, of which 70 percent goes for export and the rest to the domestic market. Domestic consumption of uchuva has developed as a result of export surpluses. The producers also cultivate other commercial crops to sell in Bogotá, such as fruit and horticultural crops.

The following agents participate in the agribusiness linkages (Table 28): traders in uchuva and other exotic fruits; producers; and private traders.

Exporters initially tried to produce the fruit on their own farms. However, owing to labour-force requirements, and given the knowledge and experience of local farmers, they decided to link to them for trade. The trader makes a supply contract with the producer, even without a written contract, whereby all the production is sold to the traders and has to meet set quality requirements. The trader pays in cash or by cheque every 15 days and has to buy the entire production. At present, Frutierrez has 80 suppliers. Occasionally, it gives loans on the crop. It hires an agronomist to provide recommendations on improving quality.

In addition to links maintained with the supplier, the producers have established other linkages with credit entities, input warehouses, and investors with whom companies or businesses are formed. The exporters finance some large-scale farmers and, in turn, the farmers finance small producers, but only in the production stage of the crop. Other investors finance the entire crop from its setup to production.

Producers and traders have an interest in diversifying into other exotic fruits. The most significant impact of this linkage is the greater negotiation ability of producers as well as the trader. The crop has also generated employment in the region as it uses intensive labour, mainly from the family.

Some private traders also act as investors with producers in order to guarantee the supply of fruit, which some sell to international suppliers.

The linkage between the producer and the export entity is not as important as in other cases analysed. The producers have to seek sources of credit, provision of inputs, technical support, etc. The farmers argue that they have created crop technology empirically, and over time, have favoured suitable methods of cultivation and management. Farmers neither receive significant government support nor do they do anything to obtain it.

In general, it is agreed that the crop has improved incomes considerably. As a result, living standards have risen and transport vehicles have been acquired in the last ten years. Thanks to this linkage, progress in schooling has been noteworthy for producers' children.

## Moras del Oriente

The case location is in Antioquia Department, 30 minutes from Medellín, Colombia's second city. Antioquia Department has a rather unusual culture for Colombia. Its population of white immigrants, free from any bonds of servitude, has built a prosperous economy as landowners. This culture has been characterized by its associative trend, and it has founded institutions such as a joint livestock business, with the participation of small and medium-sized producers.

This case began in the mid-1970s, when Jairo Patiño, the leader of the local community, concerned about the limited opportunities in the region for farmers (most were small with limited economic resources), created an alternative economy through fruit agro-industry. The enterprise began as a producer and supplier of various agricultural products. Later, with one of the 40 farmers in the region, the decision was taken to specialize in blackberries.

Through work with producers, Moras del Oriente has achieved a high level of technical modernization and quality that has opened up markets in the supermarket chain, fruit processors and wholesale businesses. Currently, Moras del Oriente processes fruit in pulp form, jam, cans, juice and drinks, as well as fresh trade. Direct beneficiaries number around 500 producers.

A large linkage activity (Table 29) with the producer has emerged from Jairo Patiño's leadership, as follows:

- With producers/suppliers: There are various kinds of agreements. The producer may act as provider, partner or lessee of the crops already established. Producers have a close relationship with Jairo Patiño, their leader. Producers have loaned money to undertake investments in the infrastructure needed for processing. Jairo Patiño has also developed his own resources in blackberry crops, guaranteeing the sales of procedures and profitable practices. Through his business, he provides cropping incentives through technical assistance, financing seeds and fertilizers, and training in technical and social aspects (Table 30).
- With the Junta de Acción Comunal of Guarne District: through the junta, roads and a school have been constructed, public services have been provided, and housing has been improved.

TABLE 29  
Agribusiness linkages – Moras del Oriente

Linkage	General objective
1. Moras del Oriente – associated producers	Production and family support
2. Moras del Oriente – joint communal action	District infrastructure support; improvement
3. Moras del Oriente – Coagroantioquia	Credit for inputs
4. Moras del Oriente – traders	
4.1 Moras del Oriente – wholesale dealers	Ensuring quality; information
4.2 Moras del Oriente – supermarket chains	Cooperative financing
4.3 Moras del Oriente – international trader	Exportation
5. Moras del Oriente – processors	
6. Moras del Oriente – private enterprises	Technical support to producer
6.1 Moras del Oriente – regional universities	
6.2 Moras del Oriente – Noel (sponsor plan)	Support to modernization and exportation
7. Moras del Oriente – government	
7.1 Moras del Oriente – PROEXPORT	Support to foreign trade
7.2 Moras del Oriente – SENA, CORPOICA & CIAL	Technological innovation
7.3 Moras del Oriente – CCI	Information and entrepreneurial training
8. Moras del Oriente – unions and politicians	Support in entrepreneurial management

- With the Coagroantioquia cooperative: input credits are provided to blackberry producers, with payment in accordance with conditions of producers and their interests.
- With government entities such as the National Training Service (SENA), Colombian Corporation for Agricultural Research (CORPOICA), PROEXPO (export promotion fund) and Corporation Colombia International (CCI); support in information, technology, training and trade promotion.
- With private regional organizations such as universities: technical support. Private enterprises have also sponsored Moras del Oriente in its modernization programmes.

In addition to generating employment, Moras del Oriente has improved living standards for the beneficiary families. There is a relationship of trust between the enterprise and producers, which is not mediated by any written contract. About 85 percent of the local producers deliver their production unconditionally. Moras del Oriente has begun to promote production diversification in order to reduce market risk.

New aspects of this agribusiness linkage include the creation of an investment fund using 15 percent of the profits, which were initially used to promote blackberries among new producers without any contractual commitment. Moras del Oriente is planning to set up another similar fund for pensions for producers who are no longer able to actively maintain production links. Jairo Patiño undertakes the management role for the community.

## COSTA RICA

### APILAC

The Asociación de Producción e Industrialización de Lácteos (Association for the Production and Industrialization of Dairy Products – APILAC) is an agribusiness developed in Costa Rica to benefit small and medium-scale producers (Table 31). This organization was founded

TABLE 31  
Agribusiness linkages of APILAC

Linkage	General objective
1. Association – member producer	Provision of milk
2. Association – non-member	Provision of milk
3. Association – third parties	
3.1 Producer – El General Cooperative	Financing
3.2 Producer – national bank	Agricultural credit
3.3 Producer – convenience store	Credits
3.4 Association – universities	Support in research and extension
4.2 Association – prod. associations	Organizational support
5. Association – government	
5.1 Association – CNP	Trade and agro-industrial support
5.2 Producer – IDEAS	Technical training
5.3 Producer – MAG	Technical assistance
5.4 Producer – INA	Technical training
5.5 Producer – IDA	Support to land access
6. Association – wholesale and retail dealers	Trade
7. Association – processors	Trade

TABLE 30  
Agribusiness linkage – Moras del Oriente and producer

1. Provide credit for inputs
2. Agricultural credit
3. Supply inputs at competitive prices
4. Technical assistance service
5. Contingency fund
6. Entrepreneurial training
7. Training on human development
8. Improvement of housing, health, education, services and infrastructure
9. Product diversification

TABLE 32  
Agribusiness linkages – APILAC and producer

1. Organizational support
2. Technical assistance
3. Training
4. Credit
5. Trade

in 1993, acquiring a dairy-products cooperative that was in an economic crisis. It brings together 136 small and medium-scale producers, of which 79 are members of the enterprise. It also guarantees services to producers such as stockpiling and secure

marketing of milk, processing, input supply, channelling loans for production, and technical services such as artificial insemination. The maximum capacity of the plant is 20 000 litres/day, of which 47 percent is currently being used.

APILAC has commercial links with distributors that manage most of the production, retail and sales at the plant. It produces about 40 different products for the domestic market, in particular, fluid milk, flavoured milk, custard, three varieties of cheeses, ice creams, and drinks.

The economic results of APILAC are favourable, although its assets are still underutilized. The main impacts of the enterprise have been: employment generation, stable income for families, technical training, and promotion of modernization processes (Table 32).

## GUATEMALA

### Cuatro Pinos

Cuatro Pinos Cooperative is located 35 km from Guatemala City, Guatemala. It operates in a smallholding region and the population is indigenous. Only 10 percent of the cultivated area is dedicated to the production of different vegetables, with the remaining 90 percent under maize and beans.

Cuatro Pinos focuses on exporting fresh vegetables (Table 33), mainly to the United States of America and the United Kingdom. The main export products are: china pea, French lima bean, summer squash, artichoke, tomatoes and chilli pimento. There are a total of 580 associate producers, with a sowing area of 350 ha per season.

The cooperative was formed after a national catastrophe, the 1976 earthquake that destroyed many towns. Originally, the cooperative was formed with fresh-vegetable producers that sold on the local market. In 1979, the legal structure of the cooperative was created with 21 members. It began by cultivating vegetables for export with demonstration plots. The target market identified was the United States of America. In the beginning, the cooperative was supported by the Swiss Group. In addition, other foreign organizations were

TABLE 33  
Agribusiness linkages of the Cuatro Pinos Cooperative

Linkage	General objective
1. Cooperative – member	Provision of horticultural crops
2. Cooperative – non-members	Provision of horticultural crops
3. Cooperative – international cooperation	Support to the cooperative; financing international trade
4. Cooperative – third parties	
4.1 Cooperative – ALCOSA	International trade
5. Cooperative – government	
5.1 Cooperative – ICTA/INCAP	Technical and training support
5.2 Cooperative – BANDESA	Credit to the producer
6. Cooperative – international dealers	Foreign selling

linked, such as ALCOSA, Latin American Agribusiness Development Corporation, AID and private Swiss exporters. The public institutions of Guatemala provided the farm technology and credit for the producers. Cuatro Pinos organizes vegetable production for exportation, provides training at the field level, supplies inputs, and handles the collection, selection and storage of products. Its has made progress through its own exports to European and American markets.

TABLE 34  
Agribusiness linkages – Cuatro Pinos cooperative and producer

1. Organizational support
2. Technical assistance
3. Credit
4. Training
5. Support in food, education, standard of living
6. Improvement in housing
7. Marketing/trade information
8. Trade
9. Redistributive programmes

There have been different periods in the life of the cooperative. Initially, it had lands where it produced its own crops. The crisis of the ALCOSA traders forced them to stop growing. Between 1978 and 1990, the number of members grew. However, in 1995–1996, the cooperative was practically bankrupted by the conduct of its administrators.

Within the cooperative, the Agricultural Department and the Agricultural Committee are responsible for planning of production from contracts. The cooperative has eight collection centres and a central collection centre to manage the post-harvest operations.

The main reasons for success include: the support from the Swiss Group for the creation and organization of the cooperative; trade development in international markets; national and international cooperation; and a good supply of export crops.

Some favourable effects of the cooperative include: improving family incomes; generating work; and improving living standards, which is showing in education, health, nutrition and the linking of women to the cooperative's work (Table 34). The cooperative operates on the technical aspects of production as well as in family well-being.

### El Limón

The El Limón cooperative is located 93 km from Guatemala City, in the municipality of Morazán where the climate is hot. Its main product is dehydrated lemon for export. Small producers, who have been improving the technical modernization of cultivation, supply the raw material.

The cooperative was founded on the initiative of Gabriel Peñate, a parish priest, with the support of Misereor, an institution created to combat world hunger and disease. It is an organization of the German Catholic Church. The cooperative was created in 1993 and has 25 members. In addition, there are other indirect beneficiaries, such as the other producers that sell their lemons to the cooperative (Table 35).

The cooperative employs 135 workers. It has a technical assistance department that provides advice to producers and supplies improved vegetative material (Table 36). Dehydrated lemon is obtained through artisanal processes, such as removing the humidity using solar dehydration as a heat source. This process takes four to six months according to the market preference. The main buyer countries are Arab countries, particularly Lebanon, and the United States of America.

TABLE 35  
**Agribusiness linkages of the El Limón Cooperative**

Linkage	General objective
1. Cooperative – member	Provision of lemons for processing
2. Cooperative – non-member	Complementary provision
3. Cooperative – international cooperation	Support to the cooperative in financing, international marketing and organizational support
4. Cooperative – Diocesis Miseror	Support to the community
5. Cooperative – third parties	Organizational support to the cooperative
5.1 Cooperative – Agexpront	International marketing
5.2 Cooperative – PROFRUTA	Diversification of lemon markets
6. Cooperative – Ministry of the Economy	Credit to the cooperative
7. Cooperative – international traders	Foreign sales

TABLE 36  
**Agribusiness linkages – El Limón and producer**

1. Organizational support
2. Technical assistance
3. Credit
4. Training
5. Support to improve living standards

The main agribusiness linkages are found between the producer and the cooperative. The member has to deliver the lemon crop; benefits arise from trading and profit-sharing. The member also has access to other services, such as technical assistance, training and credit.

The product buyers are large exporters. The cooperative has attempted to enlarge the market through commercial missions and participation at world trade fairs. It has associated with the Guatemala Exporters Association for Non-traditional Products (AGEXPRONT). Through PROFRUTA, the Ministry of Agriculture has tried alternatives to processing lemon in order to diversify the market.

The impacts of the cooperative include: improving the conditions of lemon marketing; stabilizing prices; generating work; and enabling producers to participate in decision-making. It has also raised living standards for families in qualitative terms, such as in improved housing.

## EL SALVADOR

### Azules

The case of Asociación de Productores de Añil de El Salvador (Producers' Association of Indigo in El Salvador) or Azules is quite recent. However, it was selected because it deals in a natural colorant, and is, therefore, considered a special market niche.

Until the end of the nineteenth century, indigo use was a booming economic activity. Its importance declined owing to substitution by cheaper synthetic products. However, demand has turned against synthetic products in favour of natural products. For this reason, indigo excels as a promising product, because it can bring about an agro-industrial development process.

The project began in 1992, when the cultural recovery of indigo was planned. In 1995, the German Government financed technical support for and marketing of indigo through the German Cooperation Agency (GTZ) with the national counterpart, Agronatura. In 1999, at the request of the Agrisal Group, a systematic support process to the indigo sector began. In 2000, the Inter-American Institute for Cooperation on Agriculture (IICA) coordinated the

TABLE 37  
**Agribusiness linkages of the Azules producers association**

Linkages	General objectives
1. Association – indigo producer	Provision of indigo
2. Association – indigo processor	Provision of indigo
3. Association – international cooperation	Support to the cooperative in financing, technical support, promotion and international marketing
4. Association – third parties	
4.1 Association – University of El Salvador	Information support
4.2 Association – national laboratories	Quality grading and certification
5. Association – government	
5.1 Association – indigo revival programme	Logistic development strategy
6. Association – international traders	Foreign sales

project to revive the cultivation and processing of indigo. An entrepreneurial network called Azules was subsequently formed.

This association of indigo traders is a heterogeneous group of independent producers, private enterprises, cooperatives and indigenous groups. It has 20 associates for an area of 129 ha. Eight of the associates have a plant for rustic processing. In addition to processing their own raw material, they make this service available to other producers that lack infrastructure.

Although the export value of indigo powder represents only 10 percent of the product value, US\$4 000 in 2001, it is expected a projected increase by a factor of 4.2 in 2002. The project's sphere of influence includes all of El Salvador. The producers are mainly small producers, with a low level of education and income. A minority are professionals and entrepreneurs with a medium or high income and higher education, participating in other agro-industrial activities or having their own businesses.

The marketing office of the indigo traders association plays an important role because it is responsible for buying and selling the product nationally and internationally. International cooperation and support from the Ministry of Agriculture stand out among the agribusiness linkages (Table 37). Organizational, logistic and technical support has been provided from these linkages.

Although the association has been operating for too short a time to evaluate its achievements, it has improved its trade capacity through its trading processes. The improvement in product quality has advanced through a standard quality. The recent administrative developments and management of the organizations have supported all of this, with the support of international cooperation (Table 38).

TABLE 38  
**Agribusiness linkages – Azules and producers**

1. Organizational support
2. Technical assistance
3. Training
4. Quality control
5. International marketing
6. Legal support

### **Sociedad Cooperativa Agroindustrial**

Sociedad Cooperativa Agroindustrial (SOCOAGRO) is an agro-industrial enterprise, created in 1998. Its main activity is acquiring and processing Tabasco chilli to produce paste, an intermediate product sold as raw material to the McCormick Company of Central America and other food businesses at the national level. It also has resources for producing and canning chilli sauce.

The organization is the outcome of an initiative of four farmers cooperatives located in the San Juan region. At its inception, it was supported by the Instituto Salvadoreño de Educación y Asistencia Cooperativa (ISEAC), the Canadian Hunger Foundation, and the former Office of Canadian Cooperation. It was joined by 12 shareholders, 8 of whom are representatives of 4 cooperatives, and 4 are ex-technicians of the Instituto Salvadoreño de Asesoría Cooperativa

Between 100 and 200 producers of Tabasco chilli benefit directly. They cultivate a maximum of 38 ha per year. According to the previously-agreed on quality, the producers buy 100 percent of the negotiated production. If the producer so requires, a buy-sell contract is signed. The cooperative operates as a processor and trader at the same time. In the lifetime of the cooperative, contacts have been made with international support organizations and the Anglican Church. International organizations have collaborated with resources as capital for investment, work and credit for producers (Table 39).

The producers are small-scale. Most are illiterate with a low income. Most are dedicated to farming and have subsistence crops such as maize, beans, sorghum and horticultural crops. The processing of chilli is industrial and the wholesale trade goes through large companies. Producers have participated in trade fairs and national exhibitions, as well as in international programmes to promote their produce in foreign markets.

The main impact and support provided to producers is technical support to the crop, with the participation of the private sector as input distributors. Some areas have technologically upgraded their irrigation systems, by training producers in equipment management and the efficient use of water. Technicians have been contracted for the agro-industrial process, and support requested from governmental entities for development formulas and personnel training.

The cooperative buys its inputs directly. The economic achievements of the cooperative have not been very significant owing to its very large financial burden from credit transactions with high interest rates. In 1999–2000, it had to face an unfavourable situation caused by falling sales and major financial and administrative responsibilities. The company was not able to place its main product, Tabasco chilli paste, in the market; it manufactured more paste with high administrative costs. According to the evaluation carried out, the enterprise has not become profitable and self-sustainable, but survives on donations.

TABLE 39  
Agribusiness linkages of SOCOAGRO

Linkage	General objective
1. Cooperative – member	Provision of lemon for processor
2. Cooperative – non-member	Complementary provision
3. Cooperative – international cooperation	Support to creating the cooperative; support with working capital for investment, labour and credit, technical assistance, logistic support
4. Cooperative – third parties	Organizational support to the cooperative
4.1 Cooperative – domestic trade fairs	International marketing
4.2 Cooperative – input enterprises	Technical training, equipment management
5. Cooperative – government	
5.1 Cooperative – ISEAC	Support to creative of the cooperative
5.2 Cooperative – MAG	Support for project development
5.4 Cooperative – PRS	Credit to the cooperative
5.5 Cooperative – CAMAGRO	Technical support
6. Cooperative – traders	Wholesale, retail and institutional sales



Producers have benefited from training, credit and organizational support (Table 40). It is hoped that the project has contributed to diversification of and improvement in income resources. However, in view of its brief existence, it is not easy to evaluate precisely the impact of the cooperative on producers.

TABLE 40

**Agribusiness linkages – SOCOAGRO and farmer**

- |                                    |
|------------------------------------|
| 1. Support to farmers organization |
| 2. Technical assistance            |
| 3. Training                        |
| 4. Marketing                       |

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## Chapter 4

# Specific conclusions

The case studies show that it is possible to develop agribusiness linkages in order to be actively incorporated into a globalized and highly competitive environment. In this way, associative organizations can compete in demanding foreign markets.

The case studies indicate that the development of agribusiness linkages on the strictly individual initiative of small producers is a new phenomenon and does not have the complexity and diversity demanded by the competitive environment. However, where they merge with organizational structures that incorporate relationships that reflect the changing business environment, small producers establish more complex connections.

The agribusiness linkages required for a more competitive environment need to focus on: business management; connections with new links of added value, such as agro-industry and services; and the development of new markets.

Some new types of agribusiness linkages may arise marginally or collaterally. Where they are promoted explicitly through the intervention of public and private entities (e.g. religious organizations and international cooperation), norms and instruments, these linkages may turn into efficient mechanisms for integrating small producers into the economy. For the purposes of this analysis, and in view of their importance, this type of linkage is called “emerging”.

Another possibility with great potential in agribusiness linkages could be emulated in populations with a collective or community orientation, as analysed in the Salinas dairies case. This case shows the possibility of establishing a wider relationship of support between communities and organizational structures, be they religious, civil or governmental. This case shows that indigenous or rural populations with mainly collective institutions can link successfully with the market.

### **FACTORS FAVOURING LINKAGE DEVELOPMENT**

A number of factors favour the development of agribusiness linkages. At the macrolevel, a solid regional, national or international market is a necessary condition. This market depends on: population size, purchasing power, the growth rate of the economy, and equal distribution of income.

At the sectoral level, the formulation of an explicit policy of alliances and agreements on public–private linkages for the development of competitiveness and added value is another necessary condition. Formulating policy is not enough, rather it must be given priority at the level of the small producers in the most dynamic niches and links of the food market. It is also necessary to define the programmes, projects, instruments, resources and organizations that lead this kind of process, as Chile has done.

The technological level permeating the structure of agribusiness linkages is another important factor. Producers have to use modern technology in competitive markets even where they have an intensive labour force. The studies highlight three options for

technological development that can be applied separately or combined within a chain organization:

- Improved artisanal processes whose products are for special niches or exclusive markets; these products can generate greater added value as cultural products and original products, while at the same time targeting cultural markets.
- Industrialized processes, with technologies that use scale economies, whose products are for globalized markets where they have to comply with the requirements of homogeneous quality and low prices.
- Combined processes that use products made artisanally in subsequent stages of an industrial nature. The case studies refer to cassava starch, indigo, chilli paste, dehydrated lemon and seeds.

Knowledge, which is expressed in improved levels of education and skills, favours long-term agribusiness linkage fixation. Where producers have a higher level of education, they participate in more complex agribusiness linkages through which supply is planned, risks reduced, and the quality and quantity requirements satisfied.

Another factor is explicit intervention. This may be public, through policies, and/or private, through leadership, interaction with agents and organizational development. It can focus on trade integration, protection of foreign markets and support to value-generating linkages. These interventions have a potentially favourable effect as they give rise to or consolidate “matrix” linkages through which other derived linkages are developed. This process favours the insertion of the organization into markets. The matrix linkages include those that generate innovations at the technological level, in supplying productive factors and services, integrating chains and organizing. Chile provides an example of an explicit policy in this respect, with institutions created with the express goal of engendering an innovative environment in many of the above-mentioned aspects.

Profitable prices for producers and expanding markets favour the consolidation and fixation of agribusiness linkages. Critical situations in the economy could affect the survival of the associative structures, as seen in most of the cases analysed. An option in developing agribusiness linkages, which is not seen in the cases with small producers but is known in cases of entrepreneurial producers, is to use price-stabilization funds. These can be used as instruments to reduce risk and negative impacts on markets.

The presence of organized agents such as enterprises with organizational and accumulative capacity would favour the development of agribusiness linkages. This hypothesis tends to be proved to the extent that services to producers, private investors, processor enterprises and new chain and commercial segments generally emerge through the actions of entrepreneurial agents that intervene actively and frequently through coordinated actions with the associated organizational systems.

Although entrepreneurial capacity is necessary for linkage success, it is not sufficient. As the cases studied show, the clear will of government and an organized private sector are what enable the long-term development of matrix linkages, with a wide and sustained impact on all agribusiness relationships. With the presence of government alone, without the necessary entrepreneurial capacity, its leaders and organizations, sustainable and successful development of agribusiness-linkage relationships is not achieved.

The case studies indicate that leadership, which is necessary for developing the associative organizations, may not always be responsive to spontaneous and favourable conditions, or to initiatives emerging in an exogenous way at the margin of producers. The case of FECOAGRO shows that with mutual agreement between a foreign agent and a group of

producers, it is possible to resolve major problems and create new processes incorporating scientific knowledge and practical experience.

Another area with great potential for developing agribusiness linkages concerns the legal and normative aspects of developing contracts and instruments of contractual agreement that incorporate aspects of a participatory nature. In most of the cases, informality predominates, even in countries with a tradition of legal compliance, e.g. Chile. Informality hinders the clear fulfilment of the established agreements. There are often deficiencies and gaps in the regulations required for incentives, sanctions, investment returns, agreements, redistribution and organizational consolidation.

At the level of financing, government pull-back has had an overall negative effect on most of the cases studied. This is seen in the shortfall in the supply of financing. Financing has not been provided by the private sector to the extent that was initially hoped. This shortfall restricts progress and modernization and also affects the development of new and vital agribusiness linkages, such as new forms of trade negotiation. In countries such as the United States of America, there are myriad ways of local financing, which include possibilities of saving, credit and investment. In the cases studied, some associative organizations have overcome their funding problems by innovations of their own, such as the Salinas dairies through direct credit negotiation with the IDB, and Moras del Oriente with the creation of its promotion fund.

The supply of skilled and unskilled labour also affects the development of agribusiness linkages. In general, with the exception of Chile, there are no major requirements for the work force that participate in agribusiness linkages at the production stage of artisanal processing. Workers have low levels of education. The need for skilled labour is still growing slowly, in part because of the absence of innovative processes and technological improvement. However, in all the cases, interest is being shown in setting up training mechanisms and improving skilled or family labour. This field could be open to innovations at organizational and normative level that could have an impact on the development of labour skills, productivity and grading.

All the above-mentioned linkages of a matricial nature are liable to create new linkages that favour competitiveness. However, in most of the countries studied, there is no direct connection between entities or research programmes with many of the associative organizations towards progress at the technological level, developing markets or integrating links in the chain.. Adaptation mechanisms have predominated, with technical and training support, but their limited methods are shown in stagnating supply and rapid technological obsolescence. There are cases that show far-reaching innovations in Chile (Chacay and COOPEUMO), Argentina (FECOAGRO) and in Guatemala (Cuatro Pinos and El Limón). The support of research centres and national technological centres there shows the great potential of such linkages with an associative organization of small producers.

In the cases studied, the linkages with an innovative content have all originated within the organizational structure, with the support of government policies, private programmes (with leadership from religious organizations or international cooperation) or regional programmes. From the associative organization, and in accordance with their capacity, new technological, trade and managerial skills have developed. No innovative linkages are seen as the isolated initiatives of producers or private enterprises. The innovations were generally introduced by the government on the basis of its policy priorities, by clients of the organization in accordance with market demands, or by the same organization under the intense pressures of the moment.

Producers are usually a passive element that benefits from new skills acquired by the organization. In the absence of organizations that perform mediation, the development of new skills by the producers is minimal (e.g. the case of Ecuador with its cassava-processing enterprises). On the other hand, the organizations provide a process of change and consolidation (including state support, as in Chile). They encourage more active participation by producers in the development and use of instruments, information, quality control, marketing, and risk prevention. A high level of education contributes to the successful development of new skills among producers.

Agribusiness linkages involve the following important actors:

- producers as direct beneficiaries;
- the associative organization, which forms groups and then processes or trades;
- government, which promotes and participates directly or indirectly in some of the agribusiness linkages;
- third parties, which negotiate with producers, the associative organization or government.

As governments have reduced their direct intervention in most countries, the agribusiness linkages are preferentially established linkages between producers and the associative organization, and between the associative organization and third parties. In most of the cases studied, a relationship of public–private complementarity is observed more often than an active relationship of interaction and synergies. With the exception of Chile, in cases where linkages from the public sector predominate, the linkages with the private sector are deficient, and vice versa.

Third parties or private enterprises are of two classes: (i) for-profit commercial or entrepreneurial agents; and (ii) not-for-profit organizational agents. There is a greater presence of for-profit private enterprises in trade and services to the chain. Not-for-profit organizational agents such as regional universities and international cooperation have focused on the producer with government backing, or supported governmental projects for training, and technological and organizational support.

International cooperation has played an important role in some of the cases analysed. It has been more important than government in managing and fostering associative organizations. In time, the type of linkage established with associative organizations has tended to change and promote entrepreneurial and commercial development. International cooperation can also act as a catalyst in the way it promotes activities, programmes and new linkages for the benefit of the neediest rural populations.

A greater presence of horizontal chains in a region is advantageous for developing agribusiness linkages. To the extent to which these chains exist, third parties and private enterprises play an important role in supporting education, training, technology and cheaper financing for the associative organizations. The wealth of links at the regional level is shown in the Salinas and Moras del Oriente cases.

The associative organizations can establish agreements with third parties, form linkages with producers, or leave the initiative to the producers to set up important linkages. The associative organizations tend to make these linkages endogenous where they consider redistribution or innovation proposals among their objectives. They also have supports that reaffirm these goals, either public or private. They prefer to establish links with third parties where the service is reliable, low-cost, available and sufficiently experienced. The producer is free to negotiate with profitable organizations that pay according to market conditions and do not claim to carry out redistribution or savings or other functions that intervene in the

producer's decisions. However, these cases can be highly vulnerable as they may disappear easily in a market crisis.

Changes in the content of the agribusiness linkage are more notable than the form. Concerning content, the producers should commit themselves to requirements of quality, quantity, opportunity and frequently, stockpiling. At the same time, the associative organizations should be involved with producers in sales volumes, remunerative prices, input supply, and delivery of advances. To this end, the use of planning tools is needed for sowing, production negotiated with traders, and quality control. Violations of these commitments affect the development of agribusiness linkages.

Moreover, negotiations of agribusiness linkages by associative organizations are becoming increasingly complex as they involve new fronts that had not previously been penetrated, such as quality control, productive alliances, agreements with traders and processors, and commercial development. This complexity puts pressures on them to adopt the best aspects of the entrepreneurial structures such as planning, anticipation, and negotiation capacity, along with the need to represent the interests of the beneficiary producers.

The progress, diversity and innovation of agribusiness linkages do not always correspond with the economic sustainability of the associative organizations and the beneficiary producers. The macro variables and those of the national and international environment determine economic success. The agribusiness linkages that are created and developed enable each of the parties to profit from opportunities, and to consider new markets or market niches that are particularly profitable. In the case studies, such arrangements show greater economic sustainability: (i) where the entrepreneurial ingredient is important; (ii) where agribusiness linkages are simple; or (iii) where third parties participate more and, therefore, lessen administration costs for the organizations. For policy results, a selected focus could be adopted to promote and actively support the most promising agribusiness linkages with transferred resources.

It was not possible to calculate the costs that endogenous agribusiness linkages entail for the organization. However, some data indicate that they can range from 1 to 20 percent of the product value. These costs are financed with contributions from government and international cooperation, and, to a lesser extent, covered by the economic benefits of the activity. When the organization lacks these sources of funding, these linkages are maintained exogenously and financed by the philanthropic participation of third parties and through complementarity and reciprocity agreements.

## **IMPACTS OF LINKAGES ON PRODUCERS**

The impact of agribusiness linkages on producers can be analysed from various perspectives. In terms of skills, the new skills that emerge in linkages are: technical, business management, organizational and redistributive. The technical skills depend on the degree of complexity of the productive process, in accordance with the level of market development. This type of skill is not likely to develop through training only, rather it requires education, systematic classification, and the effective use of productive processes. These abilities are acquired empirically and through training. Organizational skills harmonize the interests of associate producers with those of the associative organizations, as well as public and private support for the community. Equally, priorities are developed and assigned to the type of agribusiness linkage according to its cost and impact. Redistributive skills ensure the long-term sustainability of the organization. This is a condition for survival in countries with high indices of misery, poverty and violence.

Concerning progress in the level of training and learning skills, the case studies show that producers should show new management, organizational and quality-control skills. They should also acquire negotiation capacity within the associative organization. However, where the level of education is low, these skills may not be developed sufficiently. This explains why, once the organization disappears, producers frequently return to levels of production that are poorly organized in a collective manner.

In turn, the associative structure gains skills in organizational development, and with new agribusiness linkages, it acquires new skills in commercial negotiation and business management that enable it to cope with more demanding markets.

The beneficiary producers generally agree that agribusiness linkages, beginning with the associative structures, allow them to acquire negotiation ability. This process translates into higher, more remunerative, and frequently more stable prices, as well as preserving a competitive market position. Contributions also include: supplying inputs under favourable pricing conditions; providing services to production that affect production quality and its timely supply; and the positive impact of scale economies.

Most of the time, where agribusiness arrangements are not predominantly profitable, their action extends to improving the living standards of beneficiaries, shown by the higher level of education of children, and improved health, housing and nutrition. In most cases, the favourable effects continue to benefit the local population through generating employment and creating infrastructure.

## **CONSTRAINTS ON LINKAGE DEVELOPMENT**

One limitation to the development of agribusiness linkages is the lack of an explicit policy to support innovations that can lead to matrix linkages and a complex network of favourable interactions for agribusiness agreements. Small producers frequently do not benefit from basic research in different fields, or from innovative pilot programmes aimed at promoting their competitive conditions in relation to other entrepreneurial producers. With the exceptions of Argentina, Chile and Guatemala, the cases studied show the urgent need for such policies.

Another limitation is the lack of an explicit education and training policy for new generations of families participating in agribusiness linkages. This is an indispensable condition to stabilizing the progress made through the innovative agribusiness linkages.

In precarious circumstances, as in most of the countries analysed, part of the linkages aimed at promoting a redistributive and equitable labour should be the responsibility of government, with the consequent administrative surcharges. However, the benefits of the agribusiness linkage are being used to remedy part of this precariousness in living conditions by programmes for improving nutrition, health, housing, etc. Low living standards among producers and their families prevent accumulation and investment. Income is frequently used to address deficiencies in health, housing, nutrition and infrastructure.

Another limitation concerns the lack of active interaction that establishes synergies between the public and private sector for the benefit of small producers. One positive intervention in this sense means that the public sector actually promotes those agents with the capabilities required in agribusiness linkages (in certification, quality control, transportation services, financing, etc). Similarly, within the framework of a relevant policy of incentives, private agents could take on risks after a pilot stage has proved the viability of their intervention.

The associative organizations are limited in their negotiation ability with agents of greater economic capacity and power, such as the supermarket chains, large processors or

international traders. Contractual development could incorporate participatory aspects of associative organizations, which should be more explicit where negotiation is asymmetric. It is also necessary to develop skills in the areas of export and trade development in general.

Other major limitations found in the agribusiness linkages include informality and benefits offered to agents concerning tax evasion and usufruct of favourable economic conditions. However, in some export cases, the recent crisis in international markets has enforced re-adjustments and limited the type of linkages developed.

There is a lack of clear criteria to enable associative structures to set priorities in the form, content and costs of agribusiness linkages. Most of them act as producer beneficiaries through a process of trial and error. A systematization of similar experiences in the agribusiness linkages could help them evaluate different intervention possibilities: public or private; endogenous or exogenous; fundable by government, the associative organization, producer or jointly; etc.



## Chapter 5

# General recommendations

It is possible to favour development of agribusiness linkages by starting from the nodal linkage that usually corresponds to a producer–associative organization relationship. This linkage should be the object of explicit programmes of agribusiness development.

Supplying new markets entails greater requirements in terms of delivery, packaging and quality. It requires the application of more knowledge, information and technology, and leads on to more complex processes. These requirements could be met through an association of artisanal processes or be based on manual labour combined with industrial processes. Industrial processes could cause more rapid change in artisanal processes and enable small producers to generate more value. Improvements in artisanal processes and the development of cultural markets contribute to creating more value. In turn, it is feasible to promote links with raw material processed for industrial use. These associations of products and processes require symbiotic organizations, that is to say, the merging of small producers with entrepreneurs in a framework of participation and equality.

The development of agribusiness linkages can be favoured through the promotion of administrative and entrepreneurial skills. Such promotion helps both the producer and the association organization. On the production side, it entails coordination for planning production, its quality and, in accordance with the market requirements, price, quality and opportunity. The planning requires the joint use of information tools shared by the organization and producer. It also entails commercial development at the associative level. This commercial development involves searching for, negotiating in and diversifying markets. In addition to final-product markets, these negotiating skills are needed in the markets for inputs and productive factors. Another aspect concerns the design and use of tools to handle mainly commercial risk. These tools could consider diversification of the primary production, processed or traded products by the associative organization, and the markets. The use of stabilization instruments could also be considered, such as price-stabilization funds, compensation or savings funds, and investment. Another element concerns diversification and management in the agribusiness linkages themselves according to a policy of priorities and according to clear criteria of costs and benefits.

There is a need for greater interaction between entrepreneurial agents, government, associative organizations and raw-material producers. This does not presume that some of these actors are weak, but rather that there is a need for concerted mutual action. This capacity is a reciprocal result of normative progress and loyalty of the producers to the joint interests of the group, on a par with organizational designs that incorporate incentives and sanctions to promote these performances. From the perspective of the organization, the organization needs the application of forward-looking managerial abilities for planning and establishing mechanisms to cover risks. It is sometimes the case that honourable, charismatic and philanthropic leaders can provide the organization with effective business management. However, there is a risk that this guidance might be ephemeral, coming to a halt when the individuals retire or die, or when their area of influence is too limited.

Support needs to focus on the key linkages, in particular, matrix linkages or those of greater impact. Support also needs to focus on all strategies that help stabilize the most promising linkages, such as basic education and technical training.

There needs to be progress in the systemization and knowledge of experiences of agribusiness linkages, in particular those likely to be replicated. In this way, the associative organizations will be able to evaluate: negotiation efforts; the priority of agribusiness linkages; the relevance to establishing such linkages endogenously or exogenously; the more adaptable forms with the type of linkage and with government and the private sector.

Domestic and foreign market conditions directly affect the feasibility and sustainability of agribusiness linkages in the development process. The foreign market increases the exposure and vulnerability of producers as well as the organization. Given that it is impossible to eliminate this risk, one recommendation would be to design new linkages that would provide coverage against it, e.g. market-stabilization funds. These mechanisms could involve the diversification of products and markets, and the creation of contingency funds or compensation funds (significant experiences have been noted in Colombia with trade funds for sugar and palm).

The most dynamic lines of the domestic and foreign market (e.g. fruit and horticultural crops, and semi-processed raw materials) or of special market niches (e.g. organic products) create advantageous conditions for the development of agribusiness linkages that incorporate small-scale and medium-scale producers. There should be an explicit policy relating to the kinds of consumption that show more promise in terms of domestic consumption.

It is necessary to explore new options that offer great potential, e.g. organic and environmentally-friendly products. The development of new, non-onerous linkages is required, such as relationships with quality-certification bodies and distributing enterprises in international markets.

It is necessary to insist on improving education and skills. The problematic aspect is how to bring a coherent process of learning to the productive processes. Training per se is not enough where there is no effective demand to apply the new skills acquired. The cases suggest that great demand in domestic and foreign markets, and profitable remuneration for a more select demand, are basic preconditions for innovation and learning. In general, these requirements are associated with higher levels of incomes and education of the population where the agribusiness linkages take place. A higher level of education directly affects the possibility to develop agribusiness linkages technically and managerially, as the example of Chile illustrates. Where the level of education and skills fails to improve, the linkages lose their ability to cope with new or profoundly changing environments. In the best of cases, as with the Salinas dairies, the project may make a great impact through its redistributive intervention.

Methodologically, there needs to be an approach for associative organizations that specifies the types of linkage, and the costs and benefits for the organization and the producers. Research shows that some of the costs and benefits of agribusiness linkages are hidden or not explicit. In such a situation, there can be no real evaluation of their effectiveness.

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