

**BUSINESS PARTNERSHIPS  
IN AGRIFOOD CHAINS**

*FAO Experiences in Latin America*

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# **Business Partnerships in Agrifood chains**

## **FAO Experiences in Latin America**

by

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**FAO Regional Office for  
Latin America and the Caribbean**

**Santiago, Chile  
2006**



## ACKNOWLEDGMENTS

The authors of this publication are grateful to all participants of project TCP/RLA/2905, whose work contributed to this effort:

Guilherme Schuetz, Rural Marketing and Finance Officer, FAO-RLC.

Bernard Bridier of Centre de coopération internationale en recherche agronomique pour le développement (CIRAD), France; and Professor José Díaz of the University of Talca (Chile), for comments and recommendations made on the document.

National consultants: João Adolfo Ponchio, Brazil; Cristián Becerra, Chile; José Luis Mota, Mexico; and Marisela Benavides, Peru.

Andrea Sánchez, FAO volunteer and student of the University of Goettingen, who made a significant contribution to the analysis of the document.

Senior staff of the institutions with which the Letter of Agreement was signed,

Napoleón Muro, AGROPOLOS, Ceará Government, Brazil.

Volmir Santolín, FETRAF-SUL, Santa Catarina, Brazil.

Claus Köbrich and Mario Maino, Faculty of Veterinary Science, University of Chile.

Faustino Barrón, Technological Institute for Advanced Studies, Monterrey-CCM, Mexico.

Miguel Ordinola, Agricultural Development Foundation, Universidad Agraria de La Molina, Peru.

Our thanks to all of the small-scale producers, men and women, of agrifood chains in the regions where the project was executed, for allowing us to study their economic reality and for sharing their experiences and concerns on how the various business links operate.

We are also grateful to the Ministries of Agriculture of the four countries involved, particularly the counterparties' national focal points (the Department of Plant Inspection and Production of Brazil; the Agricultural Development Institute (INDAP) of Chile; the Shared Risk Trust Fund of Mexico; and the Agricultural Development Department of MINAG, Peru, for all the facilities provided for project execution.

Lastly, special thanks are due to the staff of FAO Rome, FAO-RLC and FAO representations in Brazil, Chile, Mexico and Peru, who, directly or indirectly, made it possible to execute this regional project.

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## INTRODUCTION

The FAO Regional Office for Latin America and the Caribbean has been encouraging small-scale farmers to participate in the market, by promoting business partnerships in agrifood chains.

This document aims to help consolidate business partnerships in agrifood chains in the region, by analysing the results of the project TCP/RLA/2905 entitled “Support for the promotion and development of business partnerships”, executed in Brazil, Chile, Mexico and Peru, in the milk, castor bean, beef, avocado, lemon, mango, artichoke and lentil chains.

The first part of the document discusses the conceptual frameworks underlying the *Agrifood chain* approach, as a support tool that encourages small-scale producers to engage with the market, and *Business Partnership* as a tool for coordinating efforts, resources and skills, to increase competitiveness.

The second part sets out the methodological framework used for implementing this project, including identification workshops, training seminars and business roundtables.

The third part organizes the information presented by each of the national consultants, explaining the changes that occurred during the various project activities, the intervening factors and the results obtained, i.e. analysis of the experience in itself.

The fourth and last part describes lessons learned, and sets out conclusions and recommendations arising from the project.

The authors



## I. THE SETTING

The key challenges facing Latin America in the twenty-first century include poverty reduction, food insecurity and social inequality. Over the last 30 years, poverty levels have doubled in the region, with the number of poor people rising from 112 million in 1970 to 225 million in 2004 (FAO, 2004). Latin America is the region of the world with the highest levels of social inequality: 40% of total income is received by the wealthiest 10% of the population, whereas the poorest 30% share just 7.5% of the total. Figures on the government of food insecurity in the region show that, while the proportion of undernourished people has declined in the last few years from 13% in 1990 to 10% in 2002, the region still has over 52 million people suffering from under nutrition (FAO, 2004).

The structural changes that have taken place in the last few years – economic openness, liberalization and the privatization of sectoral markets, together with legal changes in relation to land tenure and globalization of economic activities – have had a major impact on the region's agriculture, giving rise to new opportunities and, at the same time, posing major challenges for Latin American producers, and for family farming in particular. Although these changes have improved the climate for investments and profitable business activities in the agrifood sector, they have also boosted the process of differentiation in the sector's business structure.<sup>1</sup>

The economic reforms of the 1980s and 1990s, with their adjustment programmes aimed at correcting major imbalances in conjunction with open trade practices and the globalization of economic activities, caused major changes in the region's macroeconomic and sectoral policies. These involved a redistribution of the functions of the government and far-reaching institutional restructuring, which altered the frame of action of rural producers and their organizations.

The key changes in the “rules of the game” included deregulation of product, input, service and financial markets, which entailed the reduction, elimination or change in functions that until then had been performed by the government apparatus, many of which were transferred to the private sector and producer organizations.

In the latter case, the new scenario opened up opportunities and also put their capacities to the test.

The government entered activities aimed at reducing transaction costs, such as the organization and provision of information on prices and market trends. This process left certain areas vaguely defined and created vacuums that altered the flow of economic activities. In some cases, these served to exacerbate the differences between producers, thus giving greater advantages to the better endowed. In other words, structural changes created institutional vacuums that retarded the creation of coordination mechanisms to replace existing ones or those that were no longer functioning.

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<sup>1</sup> Small-scale farmer or family farming refers to business units in which the bulk of the labour force is provided by family members. This implies high labour intensity, low capital density, and inputs purchased on a daily basis. The destination of output and the origin of inputs is partly commercial, and tends to avoid higher risk alternatives, irrespective of the income that a profitable outcome might generate.

In adapting to the new circumstances, current development trends are based on the possibility of establishing agreements and arrangements between the various producers, the government and civil society. The rural sector is not immune from these trends, so an effective strategy to achieve comprehensive rural development and guarantee food security needs to embrace all social stakeholders: farmer communities; family farmers; indigenous population groups; women, commercial farmers; agribusiness entrepreneurs; investors; local, regional and national government authorities, etc.

The strategy therefore needs to be based on association between stakeholders to act jointly to increase business capacity, catalyze strategic associations and coalitions and strengthen their own environment. In this regard, the creation of business associations and/or partnerships would represent forms of interaction between producers that would help build a new institutional architecture making it possible to overcome the market and cooperation failures that exist in the rural sector.

### **Family farming in Latin America<sup>2</sup>**

The agriculture sector in Latin America and the Caribbean (LAC) consists of various producer groups that differ widely in terms of working capital, level of assets, type of land tenure, source of income, use of labour and the destination of production, among other things.

Based on these variables, two fundamental types of business unit have traditionally been distinguished in Latin American agriculture – agricultural firms and family farms – thereby making the region’s agrarian structure essentially bimodal (Chiriboga, 2002: 2.).

Within these two groups, however, there is one of special interest since it is one of the leading sources of food production worldwide, and the main source of employment and income for the rural population,<sup>3</sup> namely “family farming”.<sup>4</sup>

Despite its importance, its various definitions show that there is no clearly defined and generally accepted concept for this group. Its great dynamism and complexity have led many authors to identify it in extreme terms. For example, Bonnal (2003) and Rodríguez (2005) present family agriculture in Latin America as a group situated in marginal zones, using much of its output for self-consumption and closely associated with the phenomenon of rural poverty. Chiriboga (2002), in contrast, describes it as a market-oriented group that has sufficient land and uses inputs (enhanced seeds, fertilizers and agrochemicals), sometimes supported by machinery, to obtain satisfactory operating results.

Gordillo (2004: 80) argues that family farming in the region can be sub classified by level of assets. An initial group would consist of family farmers whose land resources are so sparse that

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<sup>2</sup> *Visión de la Agricultura Familiar en América Latina* [Overview of Family Agriculture in Latin America], Acosta and Rodríguez (2005).

<sup>3</sup> This is not to deny the importance of non-farm rural income today.

<sup>4</sup> This designation varies from country to country. In some cases the terms “small-scale producers” or “family farmers economy” are used to refer to this segment of agriculture.

they mainly live as wage-earners – farming or non-farming – for whom agriculture is a complementary income source. The second group consists of landowning family farmers who gain most of their livelihood from their production and can complement it with occasional off-farm work.

It is easy to see that the term “family farming” encompasses a group with a wide range of physical, financial, human and social resources (de Janvry and Sadoulet, 2001), for which reason its evaluation may vary between and within each country. Nonetheless, it also means that this lack of identification and characterization has caused family farming to be persistently confused with family farming, subsistence farming or small-scale agriculture; and, in the worst of cases, it is ignored altogether within Latin American countries.

### **Family farming in today’s market**

Competition intensified the differences between producers with capacity to compete in the market and those that were unable to do so because of high transaction costs in terms of access to information, credit, trade networks, and the absence of economies of scale.

The main problem for family farms to become modern commercial operations is the weakness of the markets to which they have access and from which they receive information. Efforts to improve farm productivity have mostly been accompanied by low prices, which inhibit investment. Crops are seasonal and gluts occur resulting in lower prices for producers. In addition, storage techniques are not used in harvests, and there are no post-harvest services that make it possible to conserve products or to send them to more distant markets without significant losses.

A *sine qua non* for the efficient functioning of market systems is a favourable environment, i.e. the set of rules, compliance procedures and rules of behaviour. Unlike organizations, institutions provide the framework within which stakeholders interact, establishing ties of cooperation and competition that form an economic order. Over the last few years, however it has been increasingly evident that agricultural and rural development has been obstructed by multiple institutional vacuums.

### **The role of the government and market failures**

The government seeks to deal with market failures and failures of cooperation between the different social actors. This process focuses on the reconstruction of government agencies, consolidation of property rights and, for certain regions and products, greater coordination with national and international markets and an increase in production and productivity. Nonetheless, for most inhabitants, there is still an enormous institutional vacuum in terms of access to government programs to develop production and economic organization. The rural domain also suffers from a huge exclusion factor, inequality between regions, vulnerability to external factors, constraints and uncertainty in dealing with the effects of institutional change (e.g. free trade agreements), among others (FAO, 2000).

The absence of coordination mechanisms to replace those existing before the reforms clearly limited the competitive performance of the region’s farmers and forestry producers, and put their survival in highly competitive markets at risk. This situation stimulated initiatives aimed at

decrease the impact of institutional and market failures, by constructing coordination mechanisms under the business partnership scheme.

### **The new agriculture approach**

The capacity to coordinate efforts and resources, both tangible and intangible, is becoming the central pillar of the new development model, in which competition is the key to market participation. The trend is to use schemes for linking producers and agribusinesses, which necessarily affects the development of agrifood chains and leads to greater vertical and horizontal coordination.

Business partnerships involve different actors in business processes, forming voluntary links to exchange resources and thus generating commitments in pursuit of a common aim, whose main purpose is to add value. Business partnerships are defined as cooperation agreements or links – formal or informal – between two or more producers to coordinate resources, efforts and skills in pursuit of a common strategic goal for mutual benefit. Such linkages make it possible to share visions, capacities and skills, so as to exploit interaction synergies and the complementary strengths and weaknesses of producers and various sectors.

The 26th FAO Regional Conference, held in April 2000, noted that a crucial area for increasing competitiveness concerns relations between producer associations and the large companies that process or distribute their products. Subsequently, at the 27th FAO Regional Conference for Latin America and the Caribbean (2002), Ministers of Agriculture made the following recommendation: “To assist actions to develop agrifood chains, through workshops, meetings and events with representatives from the government and business domains, and participation from small-scale producers – in addition to promoting business opportunities and investments among small-scale organized producers, to improve levels of competitiveness by promoting agribusiness forums and business rounds” (FAO, 2002).

Business partnerships are based specifically on a value chain approach. They are important because they not only allow market participation by all links in the chain, including those at the primary level (small-scale producers), but also make it possible to address problems of information, financing and technological innovation among the producers and local public and private institutions centred on a specific chain.

In an open market setting, competitiveness is the pillar of the process of agricultural change in Latin America and the Caribbean. Under the traditional neoclassical approach, a country's capacity to compete is determined by its comparative advantages – climate, natural resources, labour costs (Lipsey, 1995). It is now clear, however, that exploitation of the country's business factors alone is not sufficient to make it globally competitive; also required are a high capacity to coordinate efforts and resources, incorporate technological innovation processes, and develop special capacities among producers.

The challenge is even greater in developing countries, given their institutional shortcomings which in other circumstances might drive such processes forward. Business partnerships would be seen as a tool to facilitate integration not only among different producers, but also between the public sector and private enterprise, making it possible to achieve common goals jointly and more efficiently, which would make the agrifood chain more competitive.

### **What is a business partnership?**

The concept of business partnership refers to the capacity of the various chain participants to coordinate efforts, resources and skills, to jointly solve problems and make the most of opportunities. Business partnerships are defined as agreements or linkages between two or more actors, who come together to achieve common goals efficiently. Cooperation of this type can involve exchange of knowledge, technology, trust, capacities; and the sharing of risks and profits.

The term “business partnership” can be applied to a wide variety of situations and dimensions, ranging from informal exchanges, or the sharing of information and resources, to the establishment of new entities such as producer associations. A business partnership should be seen as a process rather than as a product or outcome, given the dynamic and changing nature of terms of trade, objectives, targets and expectations between the parties.

An advantage of the business partnership approach is that it helps small- and medium-scale farmers to participate in agrifood chains, enabling them to more effectively overcome the problems of market access, information, financing, infrastructure, technological innovation, and deficient institutional capacity generated by structural reforms and the globalization of economic activities (FAO, 2003).

### **Different business partnership modalities**

Agricultural stakeholders throughout the various links of an agrifood chain relate to one another in different ways, ranging from open transactions in the market to full vertical integration. Between these two extremes there is a wide range of possibilities that form a basis for the development of business partnerships (Schejtman, 1998)

The various modalities of business partnerships include “vertical partnerships”, which occur between the different links of the chain, ranging from the provision of inputs, through production, processing, marketing and transport, to marketing and distribution; or “horizontal partnerships”, which are agreements or mergers between enterprises at the same level, or the

formation of producer associations. The aim of the latter type of partnership is generally to increase the bargaining power of the parties (FAO, 2003).

To provide a system for classifying partnerships, this document uses the typology developed by Vieira and Hartwich (2002), as presented below:

- Representational partnerships: in which one of the partners takes part for representation purposes only.
- Contractual partnerships: which display a clear division between the partner funding the research and the one executing it.
- Accommodative partnerships, of convenience or necessity: in which an individual partner cannot achieve the objective alone and needs the other partner.
- Mutual partnerships: which entail a real sharing of resources, e.g. economic, human capital, information, infrastructure, etc.
- Strategic partnerships: in which as well as a real sharing of resources, there is also a strategy to achieve the objective.

### **Building partnerships**

When building a partnership, it is important to bear in mind that the interests of each partner may vary and that, initially, they may be focused on obtaining a larger share of the benefit.

For two or more actors to establish a partnership the final benefit needs to be “greater with the partnership than without it”, otherwise there will be no real interest in pursuing the process. It is therefore important for each of the partners to independently assess how their costs and benefits would change with the partnership, considering not only economic benefits, but also social, political, cultural, market access, information or other benefits that are relevant and can be represented as a welfare increase.

### **Cycle of a partnership**

Partnerships do not necessarily have to be linear and indefinite processes, but generally involve a cyclical process with a beginning and an end, or an adjustment for a new cycle. Business partnerships are developed in a strictly economic context, although strategic partnerships can also develop in the social, economic, political, sectoral and cultural domains. A Government, country or territory interested in fostering the development of partnerships should therefore ensure that adequate contextual conditions are fulfilled.

Factors that facilitate the development of partnerships include trust, complementarity among the partners, flexibility among the different players, tangible and concrete results, and good communication between the partners. The main stages of a partnership can be summarized as follows (INIA, 2002):

Bringing together potential partners and defining common objectives: The first step in any

partnership is to arrange a meeting between potential partners to create a discussion and negotiation scenario that reveals the potential benefits and difficulties involved in developing the partnership. The meeting should specifically analyse the difference between the benefit obtained by achieving the objective independently or through the partnership.

Setting up and negotiating the partnership: Once the potential partners have been brought together, areas of interest identified, common goals defined, and agreement reached on the various important issues (which should include governance, financing, legal management, distribution of risks and benefits, and dispute settlement), the following stage entails identifying the activities needed to achieve the objectives, appointing persons responsible for each activity, and defining the contribution in terms of financial and human resources to be made by each partner.

Implementing partnership: Having completed the processes of convening potential partners, definition of common objectives, agreement, negotiation and identification of activities, the next stage consists of implementing each of the activities identified in the preceding point.

The first stage of the partnership is considered crucial since there is great expectation and pressure to obtain results from the efforts that have been deployed. It is therefore advisable in this implementation phase to start with short-term and easily achievable objectives (given the economic, financial and human resources available). This will help generate trust and enthusiasm in each partner and continue moving forward. The subsequent phases essentially involve maturation, consolidation and attraction of new partners to strengthen the partnership.

Monitoring and evaluation: It is important that the partners themselves take responsibility for the monitoring and evaluation stage. Monitoring makes it possible to systematically verify that the planned activities are being undertaken as expected, or that they are making progress towards the planned outcomes, thus allowing for timely corrections to be made where necessary. This phase also serves as a scenario for discussing other problems that have arisen and to propose solutions.

It is important to conduct not only a final appraisal of the partnership, but also periodic evaluations, to critically review plans, programs, methods and resources, and to compare the partial results obtained with those that were expected. Evaluations provide information for improving the process or adjusting the goals, thereby helping to define the path to achieve the proposed objectives.

Adjustment or termination of the partnership: Partnerships enable a group of stakeholders to achieve common goals more efficiently. Once these have been achieved, the partnership can either be terminated or else adjusted for a new cycle. In the latter case, the new cycle should have its own objectives, activities and targets.

### **The role of the government in the business partnerships scheme**

The government plays a vital role as facilitator in the development of business partnerships, ensuring and promoting an optimal environment for their creation and sustainability. This involves actions such as the development of communication channels or infrastructure, collection centres, encouragement of the creation of associative work arrangements and coordination mechanisms, reduction of information asymmetries between urban and rural zones,



strengthening of institutions and technical assistance, training and financing programmes, among others; including the promotion of a new rural institutional framework for the development of local self-management processes, both entrepreneurial and financial (rural banks), and mediation, arbitration and dispute settlement mechanisms.

A business partnership approach makes it possible to alter the relation between government and rural communities, changing highly paternalistic development schemes, in which the government plays the leading role as majority investor in development programmes, into schemes that focus on the capacity and potential of the communities themselves and the interest and search for alternatives to make the private sector more competitive (Rojas, 2002).

Achieving the competitiveness required by today's market involves work which, articulated and coordinated by the various chain participants, redirects "market push" schemes that seek a market for what is produced, to "market pull" strategies – aimed at satisfying demand – to increase producers' capacity to adapt to new and continuous changes.

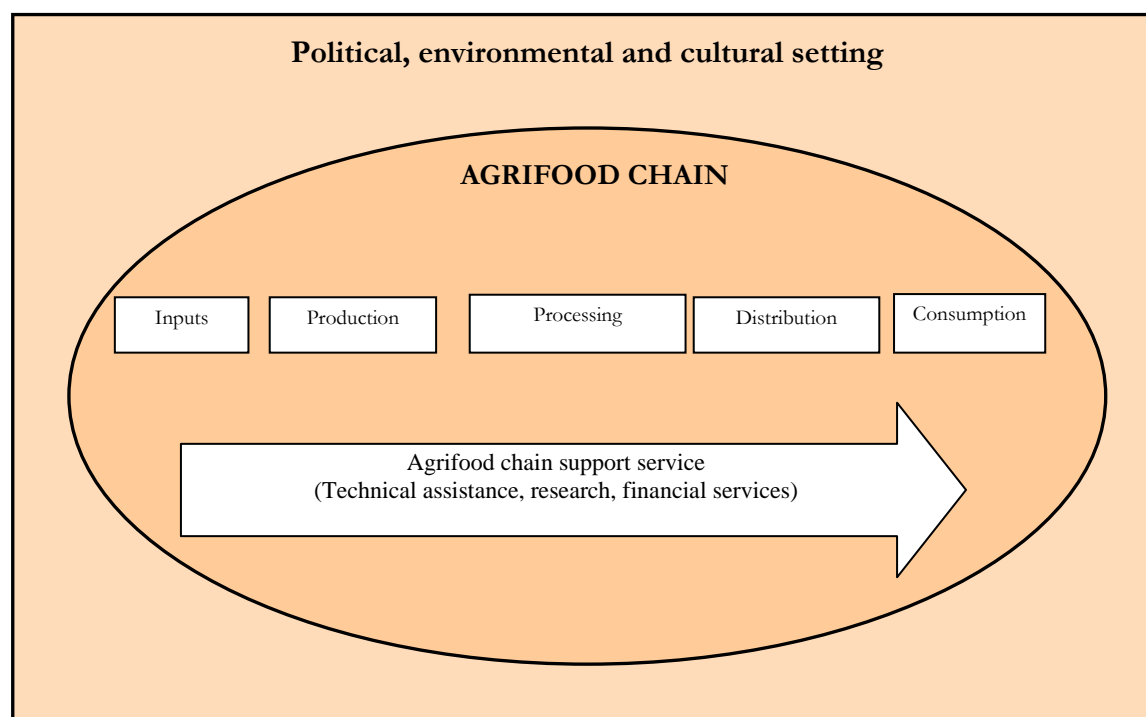
Seen in this light, the agrifood chain approach is a support tool that enables the stakeholders of different agribusiness chains in developing countries to engage, or increase their participation, in the market on a sustainable and competitive basis (Kaplinsky, 2000).

### **The agrifood chain concept**

The concept of agrifood chain refers to the group of stakeholders that participate in the processes of production, processing, marketing and distribution of a common product. The concept takes into account how participants increase and add value to the product, considering in particular the forms and types of relation that arise between the production and consumption phases of the product. The stages and activities present in an agrifood chain are developed in a setting of institutional and private services that directly affect their functioning and competitiveness (see figure).

Viewing the concept of the agrifood chain as a strategic development tool, requires deeper analysis to identify: (1) the chain's setting, i.e. understanding how it functions, who the different participants are and how they interact; (2) how to generate win-win relations; and (3) the processes that unfold within the chain and, where possible, in each of its links (Roedel, 2000: 13., Quoted in Garza et al. 2003).

**Figure 1. Agrifood chain scheme**



Source: CIDCA, 2004.

### **Classification of agrifood chains**

Agrifood chains can be classified in a variety of ways, depending, for example, on the type of product, and the degree of differentiation or number of stakeholders involved in the chain. The most important thing is to bear in mind, however, is that the classification aims to facilitate understanding and analysis of the stakeholders, links and inter-relationships existing within the chain. The following are ways of classifying agrifood chains:

- a. Based on the type of product, its final use, degree of processing or characteristics of demand, agrifood chains can be classified as:
  - *Agricultural chains*: those involving fresh produce only.
  - *Agribusiness chains*: those involving products that receive some degree of processing, and non-food products such as fibres, textiles and leathers.
- b. Based on the degree of product differentiation, agrifood chains can be classified as:
  - *Basic agrifood chains*: centred on products such as grains, tubers and oilcrops. Basic agrifood chains are characterized by low elasticity of demand, low level of processing and trade dominated by a small number of participants. Examples of this type of agrifood chain are: rice, wheat and soybean.
  - *Differentiated agrifood chains*: these involve products with special characteristics that

distinguish them from commodities. This type of chain requires a high degree of coordination between producers, processors and distributors; and there is also a degree of vertical integration between the links. Examples of this type of chain include wine and organic products.

c. Based on the type and number of stakeholders participating, agrifood chains can be classified as:

- *Simple chains*: including only stakeholders and links that are directly related to the product in the various production, marketing and marketing phases.
- *Extended chains*: in which, as well as the main chain, there are others that may touch or interlink with it at some point, and generally provide important inputs for obtaining the final product.

### **Advantages of the agrifood chain approach**

The agrifood chain approach helps business partnerships to develop between the different links, allowing for more efficient resource use and thus improving competitiveness. The main advantages include the following (Word, 2001; ISNAR, 2002; Porter, 1985; Kaplinsky, 2000):

- Distribution and marketing are important components of the final cost and key factors in competitiveness.
- The agrifood chain approach facilitates identification and analysis of the information flow, which is a fundamental factor for increasing competitiveness.
- It identifies problems, critical points and bottlenecks throughout the chain, facilitating the development of solutions in conjunction with the different actors.
- It makes it possible to analyse, in an independent and interrelated fashion, the different activities of the production process, processing and distribution, identifying possibilities for improving each of the links.

### **Analysis of agrifood chains**

There are various ways to analyse agrifood chains, mainly depending on the information it is desired to obtain and the use to be made of the results. The most common analytical approaches include “*filière*”, “value chain” and “global value chain”.

The “*filière*” approach: The “*filière*” approach, which in English means “chain”, was originally developed in France in 1960, when a group of academics used it as a tool to understand the vertical integration of certain agrifood chains (Rakes et al. 2000). The “*filière approach*” focuses on input-output relations, targeting issues such as the gains from economies of scale, transaction costs, and the importance of transport (Bernstein, 1996).

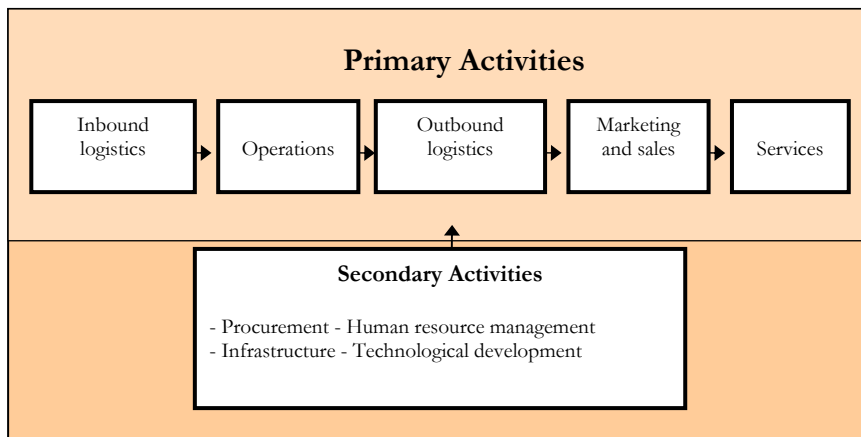
“*Filière*” analysis is viewed as the starting point for value chain studies. Its methodology begins by identification, description and characterization of the main players, continues by producing a map of the chain, and ends with analysis and description of the different types of economic relations and the flow of physical output of capital and services through the different links (Mundil, 2004).

*The value chain:* The value chain idea views the enterprise as a system comprised of subsystems. Each subsystem in turn consists of inputs, transformation processes and products. The way each of these subsystems operates within the organization will determine the cost and final earnings of the enterprise.

Michael Porter (1985) uses the term “*value chain*” to describe all activities that an organization/enterprise needs to complete to take a product from the producer to the buyer in a business system. Porter defines value as the amount a buyer is willing to pay for what an enterprise can supply (see figure).

In value chain analysis, Porter highlights the importance of studying each of the independent and interrelated processes that occur between suppliers and buyers within the organization, since this makes it possible to identify the behaviour of cost and the analysis of opportunities in which competitiveness can be gained.

**Figure 2. Porter's value chain**



Source: Porter 1985.

Although an organization may undertake hundreds of activities to transform inputs into products, Porter argues that these can be classified in two groups: “primary activities”, which include production, sale and distribution processes; and “secondary activities”, involving the procurement and acquisition of inputs, internal management of human resources, and the organizational structure to support the primary activities.

Maximizing marginal profit<sup>5</sup> is the chief goal of most enterprises. In any business the marginal profit is limited, and each participant in the value chain (supplier, producer, distributor, seller) may try to obtain the largest share; nonetheless, the intention in the value chain approach is for the different actors to cooperate and collaborate to improve the efficiency and competitiveness of the chain, thereby increasing the marginal return for all (Recklies, 2001).

*The global value chain:* The term “global value chain” was introduced in the 1990s, and is defined as the “whole range of activities involved in the design, production and marketing of a product” (Gereffi, 2001). This approach makes explicit reference to the potentially global nature of the chain, i.e. the possibility of production being done in one place in the world, processing in another, and consumption in another. Global value chain analysis makes possible the assessment of chain governance, i.e. which stakeholder(s) control(s) the structure of the chain and their degree of power over the other links.

A global chain may be managed by producers or buyers. Agrifood chains managed by producers involve a small number of large multinationals, generally belonging to an oligopoly that coordinates and controls the total production network. In contrast, in agrifood chains managed by buyers the key role is played by distributor and retailer firms (supermarkets), which set the production, process and transport standards to which the other links in the chain adjust.

### **Transaction costs in agrifood chains**

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<sup>5</sup> The marginal profit is equal to the final price that the consumer pays for the product minus the total cost of the various processing activities.

Transaction costs are expenses incurred when performing a transfer, transaction or exchange of goods or services, in the various technically separable phases of production or distribution. Such costs can be classified as: information costs, negotiation costs and monitoring costs (Williamson, 1979).

Traditional economic theory governments that, if markets were perfect, it would always be cheaper to hire a service or purchase a product than to produce it within the enterprise. Nonetheless, the procurement or acquisition process generates a cost, which sometimes makes it more efficient to produce the product or perform the activity inside the system or in close coordination with another link in the chain (Coase, 1988).

The level of competition prevailing today makes it necessary to minimize transaction costs along the chain, and this is often decisive for remaining in or being excluded from the market. One way to reduce transaction costs in a production chain is through vertical integration, which consists of incorporating activities from the previous phase into the production system, even though this might reduce the efficiency of the process. The advantages of the agricultural value chain approach include the possibility of integrating different segments of the chain, while keeping each of the participants independent, and at the same time increasing the level of coordination, trust and information exchange, and thereby reducing transaction costs.

The level of interest in vertical integration that exists among the different links of a chain depends, among other factors, on the level of transaction costs generated by working independently. Transaction costs increase as the level of differentiation or speciality of a product increases. For example, the cost of information, negotiation and monitoring between a buyer and a supplier of certified beef products may well be higher than the cost of transactions between a supplier and buyer of regular beef (Hobbs, 1996).

This example shows the usefulness of the agrifood chain approach. Facilitating the level of coordination between the various segments minimizes the costs incurred in terms of information, and the negotiation and performance of contracts, thereby making it possible to deliver a final product at a more competitive price.

### **Governance in agrifood chains**

The issue of agrifood chain governance concerns the power that one link in the chain may exercise over the other links, e.g. by setting standards for the product, processes or logistics.

There are two main forms of chain governance: chains managed by buyers, and chains managed by sellers. Agrifood systems tend to be of the first type; e.g. the supermarket decides what is produced, when, and under what conditions; and the other links in the chain collaborate to supply and fulfil those requirements. Examples of this type of governance have been studied in detail by the Institute of Development Studies (IDS) in an analysis of global fruit and vegetable links between the United Kingdom and Kenya (Gereffi et al, 2003). In the second type of governance, which is not very common among agrifood chains, the producer establishes the rules of the game.

### **Price transmission in agrifood chains**

Generally speaking the issue of price transmission can be addressed from two different perspectives: (1) a spatial approach, which analyses the difference between the price of a specific product on the international and local markets (or two different places in a single territory); and (2) a vertical agrifood chain approach, which studies how the price of a specific product is transmitted from one link to another along the chain.

Under the first approach, invoking the law of one price, transmission is direct and complete when the only difference between the two prices arises from transport and transaction costs. In contrast, the second approach governments that a reduction in prices offered by the producer should be passed on as lower input costs in the second link, and eventually as a lower price to consumers.

Nonetheless, in the analysis of the vertical transmission of prices in agrifood chains, Martínez and Rodrigues (2004) have found that a reduction in prices offered by producers does not necessarily show through as a lower price for consumers. This suggests that the benefit of a price reduction in the first link is sometimes exploited by an intermediate link, instead of being passed on to the final consumer.

Porter (1985) argues that there are two main strategies for increasing competitiveness:<sup>6</sup> price reduction or product differentiation. If a certain group of producers decides upon a competitiveness strategy based on cutting prices to increase demand, then incomplete price pass-through could become a major barrier for increasing competitiveness.

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<sup>6</sup> Competitiveness in this document is understood as the capacity of a link or stakeholder to maintain or increase its market share.

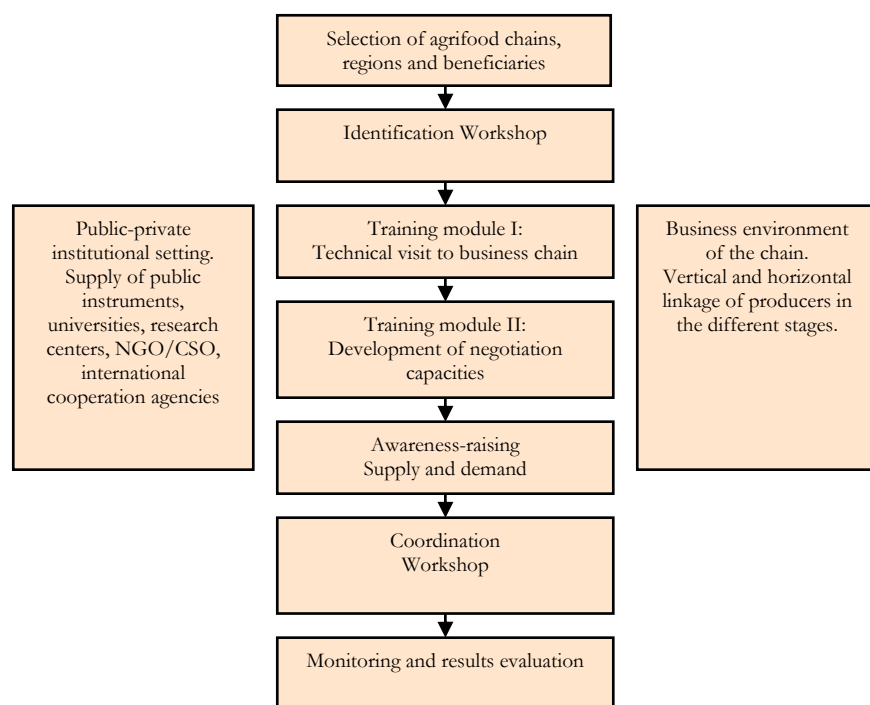


## II. METHODOLOGICAL APPROACH



The methodological approach used is broadly based on methodologies developed previously by institutions such as CIAT, ISNAR, CIDCA and SNV. The project did not require a single scheme to be followed; on the contrary, it allowed counterparties to adjust the approach flexibly, in view of the specific setting of each chain and each country. Nonetheless, it was considered important to offer a general methodological framework in this document that synthesizes the main activities undertaken and incorporates lessons learned.

**Figure 3. Methodology of promotion of business partnerships**



Source: Final report Business Partnerships Project.

For project implementation, a task force was established consisting of four national consultants (one per country), a senior consultant responsible for regional execution of the project and coordination of activities in each of the four countries, national counterparties (chosen by the Ministry of Agriculture in each country) and institutions hired to implement the project's central activities.

The project's core activities were: identification (diagnostic) workshops, training seminars and coordination workshops to support the development of business partnerships and agribusiness. A brief description of the process is provided in figure 3.

The project was implemented in eight product chains, two in each country; this meant holding eight identification workshops, eight training seminars and eight coordination and negotiation events. It is estimated that some 1,033 people participated in the events altogether – 32% participated in the identification workshops, 24% in training seminars, and 44% in business coordination workshops.

In general, producers accounted for roughly 50% or more of those attending each event; while public- and private-sector technicians accounted for 30% of the total participation. Other participants represented NGOs, research centres, packers and processors, industrialists and distributors, depending on the chains selected.

### **Selection of agrifood chains and key actors<sup>7</sup>**

The Agriculture Ministries in each country had the task of selecting the two agrifood chains and two regions for project execution, according to their national priorities and interests.

To analyse the selected chains, a special form was prepared to help national consultants identify elements involved in the planning of project activities, i.e. the producers in each chain, sectoral policies and current institutional supply. The consultants then used this document to prepare analytical reports for the eight selected chains.

### **General selection criteria**

Selection criteria were defined through a process that includes the review of secondary data, interviews with key actors, and an analysis of factors – socioeconomic as well as cultural and business – present in the region and in the chains.

Some of the selection criteria used are listed below. It should be understood, however, that this is not a unique list and depends on the special conditions prevailing in each region and chain:

- market potential of the product (demand and supply);
- profitability of the product (cost-benefit analysis);

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<sup>7</sup> The documents entitled *Diseño de estrategias para aumentar la competitividad de cadenas productivas con productores de pequeña escala* [Design of strategies to increase the competitiveness of business chains with small-scale producers] and *Guía metodológica para el análisis de cadenas productivas* [Methodological guidelines for the analysis of business chains] by CIAT and RURALTER, respectively, contain more in-depth discussions on the selection and prioritization of business chains.

- level of competitiveness;
- existing organizations;
- current and potential importance of the chain in the country or region;
- job-creation capacity;
- gender perspective;
- share of small-scale agriculture;
- institutional or governmental interest.

Choosing the agrifood chains to be worked with in the project is a crucial factor, so it is advisable to identify and define priority criteria to facilitate the selection process. The chains may have well been selected previously – by the countries, institutions or organizations – for different reasons; if so, it is worth identifying factors or criteria that were decisive in that selection.

### **Selection criteria used by FAO**

The FAO team defined the following criteria for choosing the agrifood chains and regions to participate in the project:

- Selection of reasonably articulated chains, which were helped to obtain short-term results to serve as an example for other chains.<sup>8</sup>
- Agrifood chains with diagnostics. The project is not expected to perform detailed studies, so it is advisable to select agrifood chains for which previous diagnostics exist.
- Selection of regions and productive zones under a regional business development clusters approach, integrating participants in a given agrifood chain and geographic space.<sup>9</sup>
- Possibility of linking groups associated with small-scale producers, family farmers and rural entrepreneurs in the agrifood chain.
- Possibility of coordinating the agrifood chain with the development of new national and/or international markets through a diversification of its activities.

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<sup>8</sup> This did not mean that they had to be fully consolidated business chains and so would not need the tools provided by the project.

<sup>9</sup> To make it possible to link the chain with regions or territories, account should be taken of the existence of quality highway infrastructure connections, services infrastructure, distribution channels, technological production centres, financial institutions and trained human resources.

## **Selection matrix**

Agrifood chain selection can be facilitated by using a point matrix, to compare the different chains of interest by combining the various selection criteria with their importance.

Adequate chain selection will depend on achieving a balance among the various selection criteria. Although this might seem a simple process, it becomes more complicated when the viewpoints of the different key actors are taken into account. The result of an adequate selection process shows through in the sustainability and ownership of the project.

## **Identification workshop**

The identification workshop aimed to identify the main problems and needs faced by producers, small-scale producers in particular, to develop partnerships in each of the selected countries.

Before holding this event, a preliminary diagnostic study was performed by the counterpart in each country, to ascertain the structure of the agrifood chain, its domestic and international environment, and the producers comprising it. Executing agencies were asked to use participatory methodologies in identifying producers' training needs, in accordance with the specific reality of the selected chain and region.

### **Workshop goals**

The main objectives of the identification workshops were to:

- Characterize stakeholders involved at the various stages of the chain.
- Identify the strengths, weaknesses, opportunities and threats affecting chain competitiveness.
- Create a space for discussion and thought.

### **Key activities**

With the aim of identifying the problems and needs faced by organized small-scale producers in terms of their engagement in the business chain, the activities shown in table 1 were undertaken.

The proposed methodology seeks to identify the inter-relationships, problems, constraints and opportunities existing in the various components of the process, i.e. from primary production through agribusiness processing, to marketing, distribution and final consumption. Identification of such interrelationships makes it possible to promote the development of business partnerships to make the various links in the chain more competitive.

**Table 1. Main activities of the identification workshop**

ACTIVITY	DESCRIPTION
Registration of participants	Registration and identification of participants (producers, farmers, industries, researchers, technicians, government institutions).
Presentation activity	This activity involves forming pairs which present themselves to their partner, thereby facilitating rapid integration. Presentation of workshop objectives.
Motivation dynamic (use of videos recommended)	Film entitled <i>Paradigmas</i> [Paradigms], enabling participants to think about the paradigms they face on a daily basis and the way these profile the attitude of each individual, in terms of obstacles to achieving objectives, personal targets and organization.
Basic concepts	Presentation on basic concepts on the agrifood chain and business partnership approach.
Characterization of the chain	Identify, on a participatory basis, the physical flow of the product in the chain, the different links, stakeholders and processes.
Preparation of chain map	Prepare the chain map on a participatory basis. Identify the roles of each stakeholder.
SWOT analysis	Formation of working groups to identify strengths, weaknesses, opportunities and threats of the chain.
Conclusions and recommendations	The facilitator should present the “chain improvements plan” consisting of strategic guidelines and objectives.
Preparation of timetable	A timetable for the subsequent activities will be agreed upon with the participants.
Evaluation	Participants will be asked to evaluate the workshop.

A number of the activities considered crucial for holding the identification workshop are explained in greater detail below:

*Basic concepts*

During the identification workshop it is advisable to strengthen and standardize the business partnership and agrifood chain concepts, to ensure participants have the necessary conceptual tools and gain a better understanding and development of the process.

*Mapping of the chain*

The aim of this activity is to identify, in participatory fashion, the physical flow of the product in the chain, and the different links, participants and transformation processes. To undertake the activity, participants should be divided into subgroups and asked to draw a diagram of the chain as they understand it. It is advisable for each subgroup to have at least one participant from each chain. On conclusion, the results are communicated and consolidated.

### *Profiling of the chain*

Based on this process, and with collaboration from workshop participants, a detailed characterization of the chain is made by asking key questions on the stakeholders, market, support services, market rules of the game, and other factors requiring greater specifications.

The replies obtained should be recorded in a notebook by one of the facilitators and used to enhance the original map.

If information on any of the stages of the chain appears to be lacking, it will be necessary to consider whether key stakeholders were omitted from the invitation and, as far as possible, try to include them.

**Table 2. Examples of useful questions to facilitate characterization of the chain**

<b>About the stakeholders</b>	<ul style="list-style-type: none"><li>• Who are they?</li><li>• Where are they located?</li><li>• What are their functions in the chain?</li><li>• How do they relate to each other?</li></ul>
<b>About the markets</b>	<ul style="list-style-type: none"><li>• Where do we sell what we produce?</li><li>• What are production and supply volumes?</li><li>• What is the distribution of the value chain?</li><li>• What are the buying and selling prices at each stage of the chain?</li></ul>
<b>About the support services</b>	<ul style="list-style-type: none"><li>• Who supports us in each stage of the chain?</li><li>• How do they support us?</li><li>• What services do they provide?</li><li>• What is the quality of the services provided?</li></ul>
<b>About the rules of the game</b>	<ul style="list-style-type: none"><li>• What means of payment is used at each stage of the chain?</li><li>• What are the quality requirements?</li><li>• What is the frequency of purchase?</li><li>• What are relations like between the actors of the chain?</li></ul>

*Source:* CIAT, Rural Agribusiness Development Project. Field manual on competitiveness strategies.

### *SWOT analysis*

Based on the information obtained in the previous points, a participatory group reflection is performed to analyse the main **Strengths**, **Weaknesses**, **Opportunities** and **Threats** facing the chains. The results of this **SWOT** matrix form the basis for planning and designing the strategies.

### **Training workshop**

The training programme was divided into two modules: the first consisted of technical visits to



the various agrifood chain stages, to enable stakeholders to understand better of their overall operation and deeper knowledge of problems faced in each case. The second module provided basic concepts and techniques of business negotiation and management.

Both modules aimed to lay foundations for intersectoral cooperation and collaboration, and to strengthen capacities for interaction and cooperation in forging agreements. Although the methodology was developed in each country individually, in general it consisted of presentations and group exercises to implement the concepts provided by the facilitators. After each of the plenary presentations, workgroups were organized for exercises to apply the concepts learnt.

### **Workshop objectives**

The key objective of the training was to improve knowledge on the structuring of the selected agrifood chains, and to enhance management and negotiation capacities among the various participants. The specific objectives of the workshop were to:

- Provide training for the various key stakeholders of the chains, both in the public and private sectors, in the use of monitoring and evaluation tools.
- Develop business negotiation and management capacities among participants.
- Exchange experiences with chain participants.

### **Key activities**

The training targeted leaders and representatives of producer organizations, economic stakeholders and technicians in the public and private sectors. The interactivity achieved among all participants was decisive in obtaining good results from the process.

Modules I and II were implemented through specific work sections on each topic, using a combination of presentations of high theoretical-conceptual content, followed by group work. In the case of Peru, training sessions were based on the **ACER** methodology, which stands for: **A**nalysis of training needs; **C**onceptualization of training; **E**xperimentation with the training; and **R** (*retroalimentación*) feedback. The lessons learned suggest the advisability of including a third module aimed specifically at strengthening negotiation capacities.

### Module I. Organizational development

The exercises are intended for exchange of experiences, with the aim of identifying possibilities for horizontal and vertical linkages that help organized small-scale producers to engage with the chain and improve their chances of interaction with other stakeholders to improve their competitive capacity. The module starts by presenting the conclusions of the identification workshop, the final structure of the chain, and the problems and solutions identified by participants at the production, organization, and marketing levels. In Peru, three specific work sessions are held:

Session 1. Organizational types and forms: This section provides and recommends information on the different types, forms of association and organization, such as: cooperative (*sociedad*

*cooperativa*), unlimited partnership (*sociedad en nombre colectivo*), simple limited partnership (*sociedad en comandita*), limited partnership with shares (*sociedad en comandita por acciones*), and corporation (*sociedad anónima*). The advantages and disadvantages of each of these corporate forms are discussed, along with the procedures needed for their development and operation.<sup>10</sup>

Session 2.<sup>11</sup> Life cycle of an organization: This session explains the different cycles that organization may pass through – courtship, infancy, launch, adolescence, stability, bureaucracy and expiry. It also describes the various situations an organization may encounter at each stage, and stresses the need for continuous adjustments to deal with the various problems that arise.

Session 3. The organization and its surroundings: A presentation is made to locate the organization in a specific setting, by analysing the political, economic, technological and sociological context in which the organizations and associations operate.

## Module II. Development of management and negotiation capacities

This module provides basic concepts of training in business management skills and techniques, through methodologies identified for that purpose. The aim of the training is to use a variety of exercises or games to lay foundations for promoting intersectoral cooperation and collaboration for mutual benefit, and to strengthen capacities for interaction and cooperation in forging agreements. The activity will describe the concepts of strategic planning, organization, direction, control and evaluation of an organization. The following topics are recommended for discussion during the training:

- strategic planning (objectives and definitions);
- framework of action of the organizations;
- levels of planning;
- stages of the planning process;
- plan of the strategic planning process;
- strategic targets;
- SWOT matrix;
- selection of strategic targets;
- criteria for success.

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<sup>10</sup> The document entitled *Diferentes formas de organización de una empresa* [Different organizational forms of an enterprise] can provide information to support this activity. <http://www.inpyme.gob.ni/data/Formadeorganizaciondeempresa.doc>

<sup>11</sup> The document entitled *Ciclo de vida de las agrupaciones, análisis del caso milenio* [Life cycle of clusters, analysis of the millennium case] can provide information to support this activity. [http://www.cema.edu.ar/postgrado/download/tesinas2004/MADE\\_Comin.pdf](http://www.cema.edu.ar/postgrado/download/tesinas2004/MADE_Comin.pdf)

**Table 3. Topics of the negotiation module**

<b>Section</b>	<b>Topics</b>
<b>I. Introduction to the Harvard Negotiation Method</b>	<ul style="list-style-type: none"> <li>• The five keys to the method</li> <li>• Identify and recognize own interests and those of others</li> <li>• Generate different options</li> <li>• Discover your BATNA (best alternative for a negotiated agreement)</li> </ul>
<b>II. Effective communication</b>	<ul style="list-style-type: none"> <li>• What is active listening?</li> <li>• What is communicated in communication?</li> <li>• Beyond the message</li> </ul>
<b>III. Handling difficult situations</b>	<ul style="list-style-type: none"> <li>• Frequent problems and common errors</li> <li>• How to confront anger and distrust</li> <li>• Strategies and counter strategies</li> <li>• Complex situations in the negotiation</li> </ul>
<b>IV. Generating options for agreement</b>	<ul style="list-style-type: none"> <li>• Mental blocks</li> <li>• Tactics to overcome them</li> <li>• The correct response</li> <li>• Follow the rule</li> </ul>
<b>V. Moving towards agreement</b>	<ul style="list-style-type: none"> <li>• What is on the bargaining desk?</li> <li>• Barriers to resolution</li> <li>• Overcoming the barriers</li> </ul>
<b>VI. Finalizing the agreement</b>	<ul style="list-style-type: none"> <li>• How to get what you want</li> <li>• Evaluation of the process</li> <li>• How to measure the success of the negotiation</li> </ul>

The capacity to reach agreements is fundamentally important for the development of business partnerships, since several of the strategies to make chains more competitive in the market depend on joint efforts by the various links.

In Chile, the Harvard University method was used for the negotiation segment, known worldwide through the book entitled *Getting to YES* by Roger Fisher and William Ury.

This methodological framework is based on appropriate management of the communicational process of the negotiation with a view to obtaining a result that is beneficial for all parties involved, by moving from the traditional win-lose to a win-win framework.

### **Coordination workshop**

The coordination workshop aims to provide a space for meeting and conversation between producers and potential buyers – industry, wholesalers, supermarkets – with participation also from the public sector, NGOs, universities and research centres, to identify business or partnership possibilities and intentions. The institution responsible for workshop preparation developed the methodologies and work programme, and also implemented them.

Given the importance of this latter phase in promoting business partnerships, prior to the coordination workshop the project team should hold intensive consultations and awareness-building meetings with different stakeholders, particularly purchasers and producers, with the purpose of analysing and exploring spaces and potential for developing partnerships and establishing businesses.

This exercise will identify the supply and demand that exists for the product, and the enterprises that are willing to work directly with producers under a business partnership approach.

### **Workshop objectives**

The main objectives of the coordination workshop are to:

- Bring together the different links in the chain to promote commitments or agreements aimed at improving commercial relations, as well as business partnerships and agribusinesses.
- Identify possibilities for developing new businesses and increasing chain competitiveness, bearing in mind collaboration between the various stakeholders that comprise the business and commercial chain of the product in question.
- Identify critical points within the different participants, and negotiate potential partnerships and collective actions to overcome them.

### **Development of the workshop**

The coordination workshop is a mechanism for meeting and conversation between producers and potential buyers, while also generating a space to apply the knowledge and skills acquired in the earlier identification and training activities. For this purpose, producers or representatives of producer groups are invited to participate, along with a number of potential buyers, either from the region or from more distant zones.

The activity starts with a motivational talk (e.g. on transaction costs), followed by a presentation on the region and bipartite meetings. Coordination desks are structured as follows: a desk is assigned to a group of producers from a given locality, and the potential buyers pass through it one by one (i.e. a series of rounds).

A period of 25 minutes is allocated for each round, a warning being sounded when there are five minutes left; and five-minute intervals are allowed between rounds. Producers are given a spreadsheet to keep a record of their conversations, which they should then share with other producers from their locality. Guarantees will be given at all times that conversations and their outcomes will remain confidential between the participants of the bilateral meeting; and the project technical team will not attend any of them.

Lastly, the outcomes of the process are evaluated in separate meetings organized with buyers and producers. In the case of buyers, a discussion might be held on the type of relation that was established, and the results of the meetings compared to expectations. In the case of producers, they could be given question cards asking about the positive and negative aspects of the various

stages of the process and/or the process as a whole.

### **Factors for the development of business partnerships**

There are numerous factors that hinder the establishment of partnerships, despite their potential advantages. One of these is the attitude of economic stakeholders, reflecting not only the individualism of producers, packers or agro industries, but also distrust and the absence of a spirit of cooperation, which discourages the signing of agreements and partnerships.

The greatest hindrance to business management is the lack of a shared strategic vision among economic stakeholders. Generally speaking, producers tend to have a short-term business outlook, whereas agroindustries take a long-term view. Packers are in an intermediate position, given their relative mobility in entering or leaving the market.

Commercial traders nearly always have a short-term business opportunity outlook, because of the demand fluctuations that result from changes in tastes and preferences among final consumers.

Factors that impede the development of business partnerships were identified throughout project execution. The most recurrent situations explaining the lack of articulation and coordination in the eight chains studied concern the structure of the business chain; small-scale producers; organization; institution; market.

#### Agrifood chains

- Distrust among producers. Lack of credibility is one of the main factors that obstruct or hinder the development of competitive agrifood chains.
- Differences in discourses and economic outlooks among different producers, in particular with stakeholders located in the primary link.
- Lack of knowledge of the functioning of the chain links, both among producers and among public and private technicians responsible for the implementation and development of public policies.
- Lack of up-to-date diagnostic studies of priority chains.
- Lack of analysis of information.
- Inadequate infrastructure – highways, warehouses, water.
- Availability of agricultural extension services.
- Access to financing.
- Geographic location of the stakeholders of the chain.

### Small-scale producer

- Limited management capacity.
- Lack of organization with an economic and market approach.
- Low levels of education and training.
- Distrust and inexperience.

### Organization

- Organizational schemes imposed from outside, ignoring family farming rationales linked to culture and traditions.
- Association and union leaders poorly trained to assimilate the economic changes taking place in the sector.
- Lack of a strategic outlook.
- Limited management capacity.

### Institutional

- Lack of spaces for harmonization of interests and perceptions among the stakeholders of a business chain and the public-private sectors, with resources and support instruments.
- Lack of knowledge of economic aspects that explain and justify the development of business chains.
- Non-existence or lack of knowledge of an institutional framework (rules of the game) that support the development of business partnerships: the legal framework, regulations and legal instruments that govern contractual relations, and provisions for enforcing them – contracts, intermediary mechanisms for dispute settlement, etc.
- Lack of coordinated public policies and awareness about the value chain approach.
- Dispersion of programs and resources: duplication of actions and lack of coordination.
- Lack of analysis of information and experiences on agrifood chains.
- Lack of diagnostic studies.
- Lack of training for technicians on agribusiness and market rationale issues.
- Formulation of programmes and projects without considering farmers rationales.

Market

- Lack of information to detect business and market opportunities.
- Limited access to information on prices, quality, volume and commercial agreements.
- Lack of coordinated information on programmes that support the development of agrifood chains and agribusinesses
- Limited reaction capacity in response to demand.

Based on this information, a strategy proposal was outlined to promote business partnerships, and this was complemented with evaluation activities at the regional level.

Analysis of this project will be understood as the organization and ranking of existing information, with a view to explaining the changes that occurred during the project, the factors that intervened, and the outcomes and lessons learned from the process.

### *Objectives*

Analysis process aims to help other stakeholders replicate and improve processes and generate new knowledge or ideas on how to promote and facilitate the development of business partnerships in agrifood chains, based on the experiences documented in this book.

### *Key activities*

Analysis basically aims to describe, very simply, the main project activities, outcomes and lessons learned. An important point involved choosing what to analyse, since finding and achieving the proposed objectives would largely depend on an adequate selection. The stages followed in the development of analysis were:

Define the objective: The first step, and one of the most important, consisted in clearly specifying the result(s) that were expected to be obtained from the analysis in terms of products, and the usefulness these would have for the institution and possibly outside it. Helpful questions in this phase included: *Why analyse? What product did we want to obtain? What usefulness would it have for us and for the institutions?* Answering these questions made it possible to target the analysis process.

Define the object of analysis: The second step consisted of defining the object of analysis; i.e. specifying whether the entire experience would be analysed or just part of it, or whether it would cover one period or the process as a whole.

Define the main focus of the analysis: This step helped direct the analysis process towards the collection of information, making it possible to target the process on the factors we wanted to highlight.

It is important to mention that this chapter is possibly the phase in which the core of the analysis is developed. The model proposed for defining the main focus of the analysis consisted of four phases:

- Setting.
- Chain structure.



- Project activities.
- Outcomes and lessons learned

Define the communication strategy: Analysis will not have fully achieved its objective until the products resulting from this process have been communicated both to stakeholders with a direct interest and to others related to certain issues or specific topics.

Designing the communication strategy should depend on to whom the results are to be communicated: Direct stakeholders? Project financers? National or private counterparts? Other interested entities?

The group decided to systemize this project through a document showing its main activities and outcomes in a very simple way, while at the same time providing a general conceptual framework about business partnerships and agrifood chains.

### III. PROJECT EXPERIENCES

Following the interest expressed by several Latin American countries, the FAO Regional Office for Latin America formulated the regional project entitled “Apoyo a la promoción y desarrollo de alianzas productivas” [Support for the promotion and development of business partnerships], which began its operations in January 2003 with execution in Brazil, Chile, Mexico and Peru for a 16-month period. The chains and regions selected for each country are presented below.

In Brazil, the Plant Development and Inspection Department (DFPV) of the Rural Support and Cooperativism Secretariat (SARC) of the Ministry of Agriculture and Supply (MAPA), selected the agrifood chains of castor beans in the north-east of the country, and milk produced by family farms in the south.

In Chile, the Agricultural Development Institute (INDAP), of the Ministry of Agriculture, selected the beef chains in Aysén (Chile’s XIth Region in the south of the country), and the avocado chain in the province of Petorca in the Vth Region.

In Mexico, the Shared Risk Trust Fund (FIRCO), of the Ministry of Agriculture, Rural Development, Fishing and Food (SAGARPA), selected the Mexican lemon chain in Tecomán, Colima Government, and Ataulfo mango in Tapachula, Chiapas Government.

In Peru, the General Agriculture Promotion Department (DGPA), of the Ministry of Agriculture, selected two non-traditional product chains for strengthening in the Peruvian mountains: artichokes in the Mantaro Valley in Junín, and lentil in Cajabamba, in the Cajamarca region.

**Table 4. Chains selected by country and region**

<b>Country</b>	<b>Selected chains</b>	<b>Region</b>
<b>BRAZIL</b>	Castor bean	Ceará Government
	Milk	Santa Catarina, Paraná and Rio Grande do Sul
<b>CHILE</b>	Beef	Aysén, XIth Region
	Avocado	Petorca, Vth Region
<b>MEXICO</b>	Mexican lemon	Tecomán, Colima.
	Mango	Tapachula, Chiapas.
<b>PERU</b>	Artichoke	Mantaro Valley, Junín.
	Lentil	Cajabamba, Cajamarca.

Below we provide a more detailed discussion of the experience of each of the countries and chains in which the project was executed, highlighting the activities undertaken, the outcomes

and lessons learned.

In Chile the project was implemented in the beef and avocado chains. The first was selected because it was considered to be of strategic importance for the family farming sector. This country currently has genuine opportunities for entering external markets such as the United States, the European Union, Mexico, and others; and a segment of family farming entrepreneurs could have competitive access in this process.

The second chain chosen was avocado, which is sold mainly to the export market. This is a well-coordinated chain with a well-organized industry; but it excludes small-scale producers, who mostly sell their produce to intermediaries. The product has good commercial prospects, since Chile is the world's third largest producer and exporter of avocados, with the United States as its main export market.

Beef production in Chile is highly concentrated, both in terms of cattle herds and with regard to industrial processing. As much as 71% of the beef cattle population is located in the southern part of the country, mainly in Regions VIII through X. Exploitation and industrial processing of this product takes place largely in the central zone of the country, i.e. around the large urban centres, where 46% of the country's slaughtering activity occurs.

One of the main characteristics of the beef chain in the XIth Region is that it is partly uncoordinated, given its geographic isolation and primary production (breeding and fattening of cattle). This disconnection from the meat industry represented by the country's main slaughtering and consumption centres, generates high costs in transporting cattle on the hoof, thereby making Chile's cattle business unprofitable.

Despite these problems, the region has comparative advantages for cattle rearing, in terms of animal genetics and zoosanitary advantages, which would enable it to develop relations with livestock breeders from other regions and with enterprises in the meat industry.

## **Setting**

### **Geographical location**

The Xth Region of Aysén was selected for execution of the business partnerships project, because the small-scale producer plays a significant role in the chain's primary production. This sector also has a regional development strategy, in which public and private stakeholders linked to the chain converge.

One of the main strengths of livestock activity in the Aysén Region is the quality of its beef cattle. The activity has renowned prestige because the predominant races correspond to beef cattle, unlike those in Puerto Montt to the north, which are specialized in milk production.

Beef cattle breeding is the main agricultural activity in the area, and occupies about 80% of available land. In terms of areas used for livestock, permanent grazing areas and rotation are found mainly in the municipality of Coyhaique (55%), Lago Verde (19%) and Aysén (15%). There are also some 3,500 ha under irrigation in the municipality of Coyhaique (44%), Chile Chico (27%) and Lago Verde (15%).

### **Initial situation**

The meat marketing chain in Chile has evolved considerably over the last 15 to 20 years, given the integration that has occurred within the chain, and the importance gained by meat importers, either as new importers or other stakeholders that have introduced import activity into their traditional activities, such as abattoirs and supermarkets (FUNCHILE, 2000).

The importance of beef cattle breeding is reflected its 65% share of the gross value of the region's agricultural GDP. In 2001, local trade<sup>12</sup> in beef cattle amounted to 32,773 head – 69%

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<sup>12</sup> Cattle entering and leaving the region.

young bulls and 31% cows. Slaughterhouses process roughly 11,900 head of cattle per year (average 1994-98) and 27,785 head of cattle depart on the hoof to the central zone each year (average 1994-98). Of these, about 60% are young bulls and 19% are calves. Uncontrolled on-farm slaughtering accounts for between 10% to 15% of all slaughter activity.

The reasons for including the beef chain of the XIth Region as part of the business partnerships project were as follows:

- The business chain is partly uncoordinated for various reasons, especially due to the region's geographic isolation.
- The region has comparative advantages in cattle breeding, whereas dairy cattle predominate further north.
- Regional authorities, producers and industrialists all agree that a significant increase in the national livestock herd is one of the keys to improving the sector's competitiveness and opening up the development potential of the meat industry.
- The expectations generated by trade agreements signed with the European Union and the United Governments stem from the fact that they are seen as offering the chance to open up markets for beef in Chile, offering the region a chance to reverse the ongoing decline in its livestock activity.

### **Economic data**

Beef production grew slowly at a rate of 2.2% per year over the last decade (1990-2002); and as the average annual expansion in the 1980s was 2.3%, this means there have been 22 years of weak growth. Average growth rates vary significantly between countries and sub regions; in the decade 1990-2002, production in Brazil grew by a vigorous 4.6% per year, while output in the Southern Cone broadly stagnated – actually contracting slightly by between 0.3% and 0%.

Global beef production is concentrated in the United Governments, Brazil, China, Argentina and Australia. In 2002, total output amounted to 61,000,000 tons, the leading producers being the United Governments and Brazil with 12.4 and 7.1 million tons respectively.

Chile's main competition for beef in the domestic market comes from Argentina, and then Paraguay, Brazil and Uruguay. The proximity of the MERCOSUR countries gives them a comparative advantage over more distant exporters such as Australia and New Zealand, since Chilean consumers display a clear preference for fresh or chilled meat compared to frozen produce.

### **Chain structure**

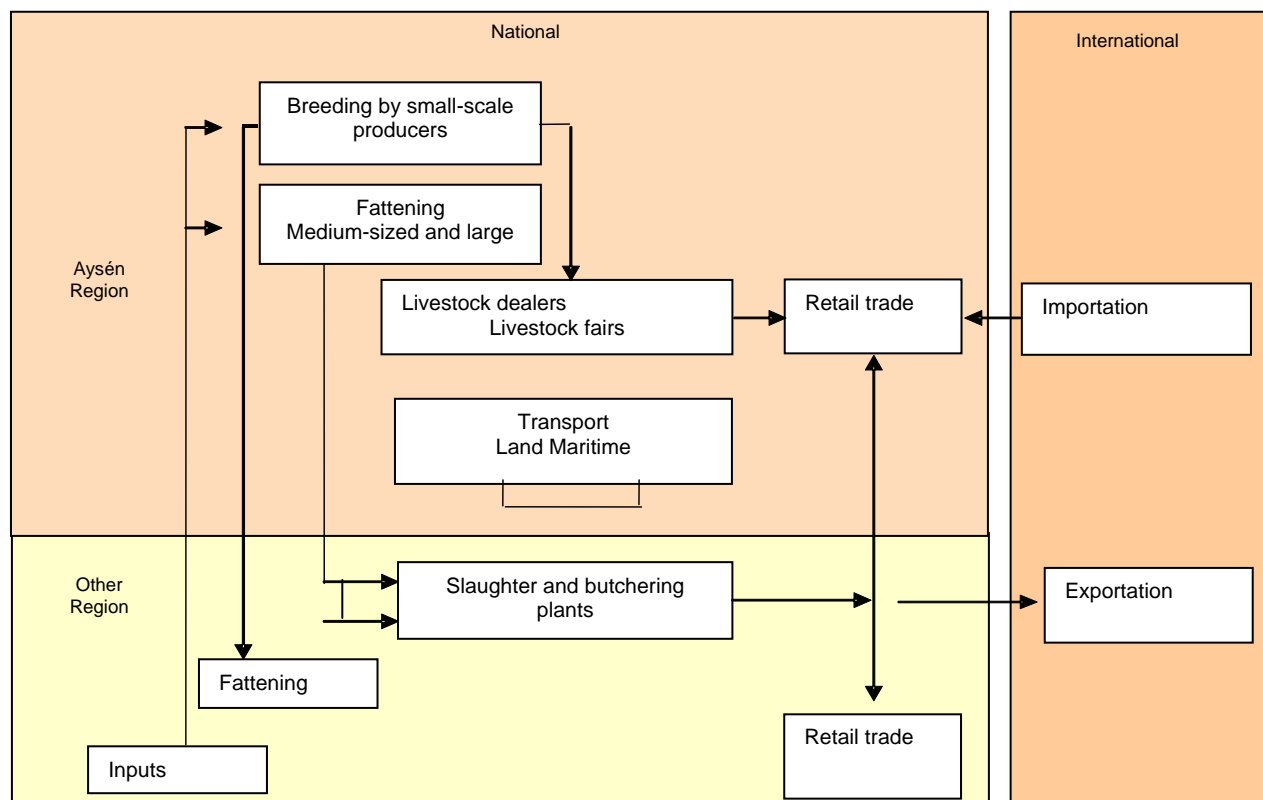
#### **Suppliers**

The various participants in the beef chain include producers, input suppliers, livestock stockbrokers and livestock fairs, slaughtering plants, the processing industry, retail trade, supermarkets and consumers. There are also independent transporters and meat importers.

In terms of production systems, small-scale producers specialize exclusively on breeding, whereas fattening is done by medium- and large-scale enterprises. Roughly 80% of the calves produced are fattened by local producers, exported from the region as young bulls, and fattened in another region. This implies high technology costs, which many livestock producers cannot afford because they do not have funds for the necessary investments (capital, training, land)



**Figure 4. Structure of the beef chain**



Source: Final Report of the National Consultant for Chile

Having said that, the basic inputs for production are all imported from other regions, which entails high production and marketing costs. Furthermore, grazing areas are insufficient to maintain animals throughout the winter period, so producers have to purchase food supplements.

The level of organization among producers is generally low, except for a few livestock companies, including large- and small-scale producers, and a number of associative forms of organization representing small-scale producers.

### **Marketing**

The marketing stage – i.e. the sale and distribution of animals for processing, or, in the case of calves, for fattening by medium-sized and large scale producers, is conducted through livestock dealers and fairs, although there are also direct relations between abattoirs and producers – both medium-sized and large. Most slaughterhouses are located close to the country’s large urban centres, along with most of the processing industries, which constitutes a limitation for the primary producers.

One of the problems involved in marketing animals is obtaining the number of livestock needed

to meet a large purchase order, since small-scale producers operate small herds. Some organized producer groups have had success in selling calves as an association, collecting animals together and dealing directly with the purchaser, without interacting with dealers or livestock fairs. Handling larger livestock volumes elicits greater interest among purchasers.

Transport is one of the main obstacles in marketing regional livestock. The large distances that have to be covered particularly affect the transport of young bulls that have to travel from the Xth Region (in the south of the country), to the slaughterhouses at Santiago in the Metropolitan Region (the centre of the country). This entails high livestock transport costs and losses resulting from the deterioration suffered by animals in the journey.

At the national level, the retail trade in these products mainly involves supermarket chains, butcher chains and independent butchers. In the retail sector supermarkets are the leading distribution channel for beef, accounting for an estimated 45-60% of total national sales.

### **Project activities**

#### **Identification workshop**

The aim of this workshop was to identify the main problems facing the beef business sector and their possible solutions, and to describe and discuss the difficulties faced by small-scale livestock producers in the XIth Region in participating in the beef chain. A group of stakeholders in the chain were invited to participate in a workshop for this purpose.

The workshop methodology was based on three fundamental pillars: the convening of representatives from the entire chain (producers, buyers, suppliers and public sector); direct and active participation by each of the participants, with a view to mobilizing the best of individual creativity and ability in relation to the tasks assumed and the outcomes to be achieved; and lastly, initial motivation by means of a brief presentation on the sector's current situation and prospects.

#### **Training workshop**

Because of the producers' time constraints, the training modules were scheduled on different dates and in different places. Module I lasted three days, with technical visits made to the cities of Osorno and Puerto Montt, in the Xth Region; while Module II was held in the city of Coyhaique in the XIth Region.

The training plan was proposed with a focus on improving the engagement of the small-scale producer in the business chain, improving knowledge of the segments of the chain and developing negotiation capacities with suppliers and with clients and other producers. The two modules were designed on the basis of background information obtained during the identification workshop and diagnosis of problems in the livestock sector held in the city of Coyhaique in July.

A visit was made to a livestock fair in Osorno, including a tour of the facilities for producers to observe the type of animal being sold, and learn of the characteristics of animals on sale in fairs in the IXth Region in comparison to what they themselves produce. A conversation was held with a livestock dealer on the importance of the fairs for price setting and the short- and medium-term challenges they face. Participants were also shown the operation of industrial plants of the

firms Ganasur and ProCarne, in cycles II (butchering and packaging) and III (processed meats), respectively.

### **Awareness-raising workshop**

Prior to the coordination workshop, the project team – INDAP, University of Chile and FAO – undertook a mission to raise awareness on the supply of livestock in the XIth Region of Aysén, with the following objectives:

- To raise awareness among livestock organizations, represented in the project activities, on the benefits of business partnerships in the sector, based on the experiences of a number of producers that have participated in the activities of the FAO project.
- To invite producers to participate in the business coordination workshop, and encourage them to organize themselves and bring specific proposals for negotiation with potential buyers attending the meeting.

The reason was to prepare producers for the coordination workshop and ensure that they identify what they can offer their potential buyers. This is particularly important when sellers have to operate collectively. It would have been a failure if producers discussed among themselves during the negotiation round, since buyers would not feel that they were dealing with interlocutors with decision-making capacity.

### **Coordination workshop**

The purpose of the business workshop was to provide an opportunity for meeting and conversation between producers and potential buyers of beef: producers, fatteners, slaughtering plants, and livestock fairs. It also aims to offer a space for small-scale producers to apply the knowledge and skills they have developed.

Nine negotiation desks were established, and producers were grouped together by locality: Balmaceda, Mañihuales, La Junta, Bahía Murta, Bajada Ibáñez, Puerto Tranquilo, Valle Simpson, Cochrane and Chile Chico - Mallín Grande. Each locality was placed at a desk and each participating enterprise represented a potential buyer. At the end of each round, buyers moved on to the next desk, eventually passing through all of them to exchange experiences and new business ideas.

The following stakeholders were invited to the business coordination workshop:

- Producers or representatives of producer groups from nine different parts of the XIth Region: Comité Los Ñires (Sector Balmaceda); the Sello Verde enterprise and AG La Junta (Manuales sector and La Junta sector); Asociación Gremial Los Ríos (Bahía Murta sector); Asociación Gremial La Bajada (Valle Simpson sector); Asociación Gremial Río Baker (Cochrane sector); Comité Campesino Chile Chico (Mallin Grande sector).
- Potential buyers: Carnes Ñuble, Feria el Tattersal, Ganasur, OGANA, Corredor Ganasur, fatteners of the Xth and XIth Regions.

Lastly, buyers and producers made separate evaluations of the results of the process. In the case of producers, a system of cards was used in which the positive and negative aspects of the different stages of the process and/or the process as a whole were recorded. In the case of buyers, a conversation was held on the type of relation that had been established and the outcomes of meetings compared to their expectations.

## **Outcomes and lessons learned**

### **Identification workshop**

A total of 27 people participated in the workshop, including producers (13), livestock dealers (2) livestock fairs (1), enterprise suppliers (2) and the public sector (9). The main outcomes of the workshop were as follows:

With the methodology used – the Friedrich Ebert Foundation – participation was elicited from most of the stakeholders attending. Nonetheless, as a wide range of topics was addressed it was impossible to treat associative and commercial issues in depth.

The main problems faced by the beef sector in the XIth Region were identified, and grouped in three categories:

- Structural, relating to geography: The region's vast area (108,000 km<sup>2</sup>), compounded by its difficult terrain and small population (91,000 inhabitants), mean that transport becomes very important. The geographic problem affects not only the output of products, but also the arrival of inputs for production.
- Business process: This group encompasses all difficulties associated with the business process. Problems relate to production volume, available resources and, lastly, production technology and management.
- Management and marketing: The last group of problems concerns aspects of management, particularly in terms of marketing the product. These are problems of associativity, coordination of the chain and the product.

### **Training workshop**

A total of 17 producers participated in the technical tour, representing nine livestock organizations, five staff from INDAP in the XIth Region, an INDAP official from the Xth region, the Project Coordinator from the INDAP National Office, and technical teams from the University of Chile and FAO. A total of 17 producers attended training module II, along with eight civil servants (from INDAP and the Ministry of Agriculture) and technical teams from the University of Chile and FAO.

- Visits to processing plants afforded participants a realistic view of national livestock activity. The visit to the Ganasur firm showed producers the good prospects that exist for the meat business as trade opens up to external markets. The visit was specially important also because it allowed for an exchange of views with an stakeholder involved in this new beef export process.

- Training helped to raise producers' awareness of the advantages of association as a way to seek better marketing alternatives and lower transport costs. Training also made it possible to mature the idea of strengthening a number of producer groups that are starting to work in association; and it generated a space for an exchange of experiences between producers who normally do not have much contact between each other.
- A new outlook was given to the topics of good livestock practices and health, safety and traceability issues, in recognition of their short- to medium-term importance.

### **Awareness-raising meetings**

Visits were made to five of the nine organizations participating in the project. As each meeting was attended by an average of 15 participants, the awareness raising process directly reached a total of 75 producers.

Awareness-raising meetings with other organizations were held by INDAP officials. Producers were also invited to participate in the business coordination workshop, as a way of conversing with potential customers and establishing either commitments or else merely contacts which could be turned into business later.

### **Coordination workshop**

A total of 52 people participated in the workshop, of whom 31 were producers, 12 were fatteners, dealers and industry representatives, and nine were civil servants and technicians (INDAP and INIA).

The main results of the coordination workshop were as follows:

- An opportunity was provided for producers and potential buyers to meet each other. In addition, producers implemented what they had learnt during project activities – management and negotiation capacities.
- The coordination desks were valued not only for the exchange of commercial information but also as a place for learning and meeting, to share information between participants.

### **Lessons learned**

- In general, there was tremendous ignorance of the purpose of partnerships and their role in improving sectoral competitiveness. This was definitely one of the most surprising discoveries. The meetings showed that is very hard for a farmer to visualize the breakdown of a chain as a problem, and harder still to see the solution in terms of partnerships. This situation, which is predominant, is compounded by the fact that some participants see partnerships as a way to prevent others harming them. In short, there is no shared expectation that partnerships will generate benefits for all partners.
- The absence of an initial shared diagnostic is one of the problems encountered in the meetings. Participants coincide little in their diagnosis of problems to be resolved, as can be seen more clearly when considering stakeholders from a different segment of the

chain. This divergence and visions that are not shared need to be worked on, to unify them and thus be able to move forward on partnership issues.

- Another of the problems faced was that few people participated actively in the four activities (diagnostic, training, awareness raising and business desks). Although some four or five producers per locality participated in all, only one or two did so in every activity, thereby giving continuity to their participation and coherence to the activities. It should be stressed, however, that working with localities is a correct strategy for this region. The physical distance between them and their individual isolation mean that associative action by each locality is necessary for coordination with external buyers. An adequate choice of participants is therefore very important (they should be representative and have management capacity).

**Table 5. Factors that favour building business partnerships in the beef chain.**

STRUCTURE OF THE CHAIN	ECONOMIC STAKEHOLDERS	SETTING
<ul style="list-style-type: none"> <li>▪ High quality of beef cattle in the Aysén Region.</li> <li>▪ Health conditions, and geographic isolation and clean production of regional products.</li> </ul>	<p><b>Small-scale producer</b> Groups of producers willing to integrate horizontally to improve product supply.</p>	<p><b>Institutional</b></p> <ul style="list-style-type: none"> <li>▪ Existence of public institutions (INDAP) capable of working with small-scale producers in an innovative way to structure agricultural chains, alliances and agribusinesses.</li> <li>▪ In the process of construction of the beef network, with an associative focus for the market.</li> </ul>
	<p><b>Organization</b> Willingness to collaborate to promote organization and association.</p>	<p><b>Market</b></p> <ul style="list-style-type: none"> <li>▪ Satisfies the demands of destination markets.</li> <li>▪ Possibility of applying for denomination of origin.</li> <li>▪ Opening of new markets (United Governments, European Union) gives greater certainty to investments.</li> </ul>

**Table 6. Factors that obstruct building business partnerships in the beef chain.**

STRUCTURE OF THE CHAIN	ECONOMIC STAKEHOLDERS	SETTING
<ul style="list-style-type: none"> <li>▪ Insufficient transport infrastructure, both maritime and terrestrial.</li> <li>▪ High storage costs for basic inputs.</li> </ul>	<p><b>Small-scale producer</b></p> <ul style="list-style-type: none"> <li>▪ Geographic isolation.</li> <li>▪ Substantial individualism and mistrust.</li> <li>▪ Concentration of producers among adult or older-age people.</li> <li>▪ Low levels of schooling.</li> </ul>	<p><b>Institutional</b></p> <ul style="list-style-type: none"> <li>▪ Most of the activity is concentrated in the province of Coyhaique, including training, technology transfer, research, distribution of subsidies, support services, highway infrastructure and means of transport.</li> </ul>
	<p><b>Organization</b></p> <ul style="list-style-type: none"> <li>▪ Low levels of organization for economic or market purposes.</li> </ul>	<p><b>Market</b></p> <ul style="list-style-type: none"> <li>▪ Not prepared to cope with a market without tariff barriers for products of regional interest, as envisaged in the medium term, especially with MERCOSUR.</li> <li>▪ Growing preference shown by Chilean consumers for poultry and pork meat.</li> </ul>

Avocado (*Persea americana*) is cultivated in much of Chile's Vth Region, which accounts for about 70% of the total planted area nationwide. The provinces of Petorca, Quillota and San Felipe hold 97% of the planted area in the region. This mainly reflects the good climatic conditions, soil quality and available water supply (from the Petorca, Ligua and Aconcagua river valleys) to irrigate the plantations. In the provinces of Quillota and Petorca, which produce 75% of national avocado output, the sector generates roughly 4,000 permanent jobs and 2,000 temporary jobs during the harvest period.

### **Setting**

#### **Geographical location**

The project was carried out in the country's central Vth Region (Valparaíso), which has a population of about 1.5 million. Roughly 87% of the region's area is urban.

Its commercial hinterland encompasses major consumption centres, particularly the Santiago Metropolitan Region with over 6 million inhabitants, and the Valparaíso/Viña del Mar conurbation, which includes the main shipping ports and the most important routes for export.

#### **Initial situation**

Chilean avocado has no competition from other providers in the domestic market, so the fruit mainly competes with the North American market. In the United States Chilean producers benefit from seasonal factors, and Chilean avocado dominates that market between August and December. From January onwards, however, depending on quality and the quantity of the harvest in California, North American avocado rapidly replaces the Chilean product. Competitiveness is clearly based on seasonal factors. North American production, in conjunction with imports from Mexico and the Dominican Republic, complicate the marketing of Chilean avocado.

The reasons for including the avocado chain in the Vth Region as part of the business partnerships project include the following:

- A large segment of small-scale producers, concentrated in the province of Petorca, are outside the business chain and relate to it through intermediaries who pay cash for production and also participate in harvest tasks on the plantations.
- The business partnerships project aims to achieve better collaboration between participants, specially between producers and exporters.

Among evergreen fruit trees, which since 1990 have been contributing more to agricultural GDP every year, avocados are the most important export product, registering a strong growth trend in terms of both volumes and total value. In 2002, avocado exports generated returns of roughly US\$ 141 million, equivalent to 3.57% of the total value of agricultural and livestock exports.

#### **Economic data**



According to data from FAO and the United Governments Department of Agriculture (USDA), the worldwide area of avocado plantations currently exceeds 340,000 ha. The largest areas of cultivation are in Mexico, with 94,000 ha (28%), the United Governments with 26,000 ha (8%) and Chile with 25,000,000 ha (6%).

In global trade, the leading exporters are Mexico, Chile, South Africa, Spain and Israel. Australia has increased its export-oriented plantations in recent years, although its production figures are modest thus far. Israel mainly exports to European countries, where it competes with Spain, South Africa, Kenya and Mexico. The United Governments complements its own high levels of production (California) with imports from Chile, the Dominican Republic and, since 1998, Mexico, to supply the north-eastern governments.

Worldwide consumption of avocados is rising. Demand comes from the United Governments and nearly all countries in the European Union, especially France and the United Kingdom. Japan is one of the countries of major interest to Chile, where avocado imports are on the rise.

### **Project stakeholders**

The following organizations and institutions in the avocado chain participated in the process:

- Individual producers or representatives of a locality or organization.
- Professional purchasers from marketing firms.
- INDAP professional public services.
- INDAP project technical team (the project counterparty), academics from the University of Chile, and FAO consultants.

### **Chain structure**

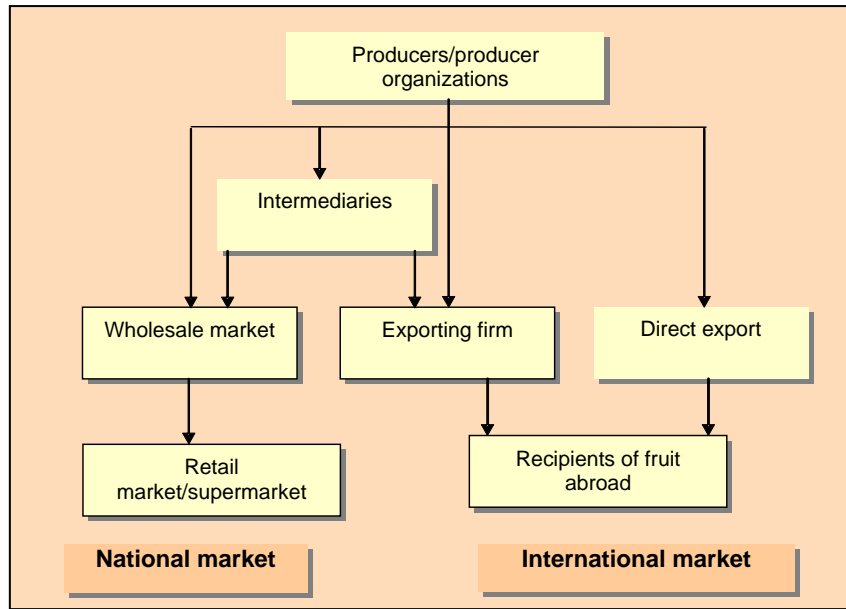
#### **Suppliers**

The small-scale farmer predominates in the Vth Region, accounting for 48% of total farms while subsistence producers occupy 30%, leaving 11% of farms in the hands of medium-scale (9%) and large producers (2%).<sup>13</sup>

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<sup>13</sup> ODEPA: Classification of farming units. Fifth National Agricultural Census by type of producer and geographic location. Chile, 2000.

**Figure 5. Structure of the avocado chain**



Source: Final report of the National consultant of Chile

The fact that small-scale producers located in the Ligua and Petorca valleys work individually means they have little chance of gaining access to better prices, because small volume makes them less attractive for export enterprises; organization, however, gives them the chance to handle attractive volumes and gain a stronger negotiating position with packers or exporters.

The sector is particularly important in the Vth Region, since many low-income families living in remote zones cultivate small areas and survive thanks to the high value of their produce, low production costs and the low levels of capital they have to invest in the plantation.

## **Marketing**

Producers and producer organizations sell their produce in the avocado marketing chain through several channels:

- Production destined for the domestic market is sold directly, i.e. producers directly supply the wholesale trade.
- Producers supply through intermediaries, who in turn supply wholesalers.
- In the case of exports, most shipments are made by exporting enterprises that purchase avocado directly from producers or intermediaries.
- Producer organizations have managed to export their produce directly.
- Avocado sales to final consumers are channelled through national and international retail trade (fairs, supermarkets, etc).

In the industrial segment, the country's main producers and exporters are members of the *Comité*

*de Paltas* (Avocado Committee), an association that has endeavoured to achieve coordination among exporting firms. It is also responsible for regulating shipments to destination markets, and for major promotion campaigns aimed at the consumption of the Hass variety of avocado in the North American and domestic markets.

### **Project activities**

#### **Identification workshop**

The identification workshop was held in the town of la Ligua in the Vth Region, to identify the main problems faced by avocado production in the province and find possible solutions. A group of participants in the chain were invited to participate. Before embarking on group work, a promotional talk was given on the avocado sector. At the end of the workshop, a presentation was made on exports of Hass avocado.

With the methodology used – the Friedrich Ebert Foundation – participation was elicited from most majority of those present, in particular representatives of producers and public services. The fact that the workshop addressed a wide range of issues, made it impossible to analyse associative and commercial issues in any depth.

The methodology was the same as that of the identification workshop in the beef chain, based on three pillars.

1. Convening of representatives from all links in the chain, i.e. producers, purchasers, suppliers and the public sector.
2. Direct and active participation by each stakeholder, with the aim of mobilizing the best of people's creativity and skills in furtherance of the tasks undertaken and the results being pursued.
3. Initial motivation through a presentation entitled "The avocado export chain and certain strategic options" given by the Agricom enterprise.

#### **Training workshop**

The training workshop was designed with a focus on increasing the engagement of the small-scale producer in the business chain, by improving knowledge of the other links in the chain and development of negotiation capacities both with suppliers and customers and with other producers.

The training event was divided into two modules. The first consisted of a technical tour to become familiar with the segments and key stakeholders in the chain, particularly suppliers, buyers and final distributors (supermarket and exporters). The tour was planned so as to follow the avocado chain linearly, i.e. from the farmer to the supermarket. Talks were held with senior personnel at the places visited, to discuss the difficulties and opportunities faced by each link. The second module involved classroom-based training with the key aim of generating capacities on business management and negotiation issues.

Given coordination difficulties and farmers' time constraints, training was provided at four different times to facilitate attendance (activities were held in the middle of the harvest period).

### **Awareness raising meeting**

Before holding the coordination workshop, the project team – INDAP, University of Chile and FAO – undertook a mission to raise awareness of avocado supply, taking advantage of the opportunity provided by the meeting to establish the Avocado Network.

During the meeting, a summary was provided of project activities, and an invitation was extended to participate in the coordination workshop and in the desks, explaining the purpose of the desks, the participants and the working method. Special emphasis was placed on the idea of the desks as an opportunity to improve marketing of the product, although it was participants' exclusive responsibility to come with proposals and not just demands.

### **Coordination workshop**

The purpose of the coordination workshop was to provide a mechanism for meeting and conversation between producers and potential buyers of avocado (mainly export enterprises), thereby generating a space to apply the knowledge and skills developed by producers in activities prior to the project.

Producers or representatives of producer groups were invited from seven different sectors of the province of Petorca (Longotoma, Valle Hermoso, La Ligua, Hierro Viejo, Petorca, Pedegua and Cabildo) and various potential buyers (the firms La Petorquina, Agrocomercial Quillota - Propal, Remifruit and Intermarket Net).

## **Outcomes and lessons learned**

### **Identification workshop**

A total of 24 people participated in the identification workshop, including producers (12), export enterprises (1), university professors (3), public sector (8). The event proved extremely useful for understanding and structuring the problems and jointly proposing solutions to overcome them.

The main outcomes of the identification workshop were as follows:

- The problems of the chain were identified and grouped in three categories: irrigation, production, management and marketing.
- Potential solutions aimed at improving production techniques and product quality include irrigation improvements, strengthening of association, and greater integration and organization of the business chain.
- Although the identification workshop was positive for producers, since it enabled them to organize and structure their own ideas on the chain problem, it was less useful from the project standpoint. This was because neither commercial nor associative diagnostics were emphasized, some of the solutions proposed were totally outside the scope of the project, and those within its scope – business management, negotiation and the

promotion of association – were not developed sufficiently.

### **Training workshop**

A total of 22 people attended the training workshop, including producers (18) and civil servants (4). Its purpose was to improve knowledge of the avocado chain.

The outcomes of the identification workshop were as follows:

- Visits to two packing operations gave an insight into the process avocados go through from reception to dispatch. The tour also made it possible to strengthen aspects relating to product quality and the selection of exportable avocados. A number of technical aspects of the product and sale contracts were also discussed.
- The visit to the SAG-USDA site in the port of Valparaíso provided information on health control procedures, and thus the importance of adequate management and quality of the product. The visit to the supermarket yielded information on demand for the product and how it is currently stored.
- The splitting of module II into three sections, undoubtedly impaired the continuity of the course and the transmission of concepts with the applied methodology logic.

### **Coordination workshop**

A total of 33 producers, four firms and four institutions participated. Buyers saw the business workshop as a good opportunity to meet and make contact with a significant group of new producers.

The outcomes of the coordination workshop included the following:

- The La Petorquina firm is very interested in working with a group of producers contacted at the workshop, either individually or collectively. This enterprise views a strategic partnership as something more than just receiving and exporting the producers' fruit. The firm also plans to develop a model orchards pilot project with small-scale producers to promote better business management.
- The methodology used helped to build trust between producers and potential buyers for the business desks; nonetheless, it is impossible to measure the impact of those meetings without follow-up and a subsequent evaluation.
- The business coordination desks were valued not only for the exchange of commercial information, but also as a place for learning and understanding between stakeholders.

### **Lessons learned**

- One of the weaknesses of the project was the lack of an initial diagnostic on the business and commercial situation of each participant. Participants included some for whom avocado was not their main product line, so the project only gave them new knowledge and tools to use in their activities, without helping them to strengthen business partnerships in the avocado chain.

- The results achieved in the avocado chain show that the commitment of local institutions is directly related to the results of a process. It is very important in conjunction with local stakeholders to define the activities to be undertaken and commitments by the parties.
- It is important to elicit active participation from public-sector and local private officials, who usually interact with producers and eventually, would be responsible for replicating the business partnerships project and monitoring the activities undertaken.
- The development of trust between the participants of a business desk (producers and potential buyers) is greatly enhanced by their having met in one of the activities prior to the project. This was clearly seen in the specific case of Propal and Remifruit, enterprises that were visited during the technical tour.
- It is interesting to note that good results that can be achieved in business coordination desks with producers who, while not formally organized, are geographically close (neighbours). This situation generates interest in organizing formally or informally in response to a market incentive.
- A weakness of the project was that producers could join the project at no cost, so they did not feel fully committed to attending all activities. We believe that if producers had to finance attendance themselves, even partially, they would feel more committed and be more likely to participate actively.
- In relation to timing, project execution was held at the wrong time of year from a marketing point of view, because practically all production had been sold or its sale was committed when the coordination desks were held. Project execution therefore needs to consider adapting execution to the agricultural calendar, with a view to making the most of the business coordination desks through real business deals and carrying out monitoring activities.

**Table 7. Factors that favour building business partnerships in the avocado chain.**

STRUCTURE OF THE CHAIN	ECONOMIC STAKEHOLDERS	SETTING
<ul style="list-style-type: none"> <li>▪ Avocado plantations apply government-of-the-art technology.</li> <li>▪ 58% of trees of the <i>Hass</i> variety are in the formation stage, which means greater business potential in the medium-term.</li> </ul>	<p><b>Small-scale producer</b></p> <ul style="list-style-type: none"> <li>▪ Groups of producers with initiative and business vision.</li> </ul>	<p><b>Institutional</b></p> <ul style="list-style-type: none"> <li>▪ Existence of public institutions (INDAP) capable of working with small-scale producers in an innovative way to structure agricultural chains, alliances and agribusinesses.</li> <li>▪ Establishment of an avocado network.</li> </ul>
	<p><b>Organization</b></p> <ul style="list-style-type: none"> <li>▪ Willingness to collaborate to promote organization and association.</li> </ul>	<p><b>Market</b></p> <ul style="list-style-type: none"> <li>• The Avocado Committee has succeeded in promoting avocado consumption through an aggressive and innovative advertising campaign.</li> <li>• The seasonality of the product favours Chilean sales to the United Governments between August and December.</li> </ul>

**Table 8. Factors that obstruct building business partnerships in the avocado chain.**

STRUCTURE OF THE CHAIN	ECONOMIC STAKEHOLDERS	SETTING
<ul style="list-style-type: none"> <li>▪ Small-scale producers not connected to the agricultural value chain.</li> <li>▪ Lack of information on technological innovations.</li> <li>▪ Lack of horizontal integration to create product supply, manage resources and increase bargaining power.</li> </ul>	<p><b>Small-scale producer</b></p> <ul style="list-style-type: none"> <li>▪ Individualism and mistrust.</li> <li>▪ Lack of management capacity in the financial and commercial domains.</li> <li>▪ Low levels of education and training.</li> </ul>	<p><b>Institutional</b></p> <ul style="list-style-type: none"> <li>▪ Lack of training of agribusiness technicians.</li> </ul>
	<p><b>Organization</b></p> <ul style="list-style-type: none"> <li>▪ Lack of trust between producers and exporter enterprises.</li> <li>▪ Insufficient information available in relation to demand, potential buyers, sales constraints, competitors, etc.</li> <li>▪ Lack of market focus.</li> </ul>	<p><b>Market</b></p> <ul style="list-style-type: none"> <li>▪ Heavy reliance on the North American market to which nearly all shipments are exported.</li> <li>▪ Lack of diversification of export markets, which makes the business more vulnerable.</li> <li>▪ High level of intermediary activity.</li> <li>▪ Growing competition from the Mexican product mainly in the North American market.</li> </ul>

In Peru the project was implemented in two agrifood chains: artichokes and lentil. The first was chosen to encourage the production of non-traditional export products, and because of the importance of having concrete experiences involving small-scale producers. In terms of its main characteristics, this chain is moderately articulated, but its primary link needs strengthening, since production levels are very low in relation to domestic and international requirements.

The second chain selected was lentils, which are grown mainly for domestic consumption. Lentil production is concentrated among small-scale producers living in areas of extreme poverty in the north and centre of the country. This chain also has low levels of organization, and is far from marketing centres.



The artichoke is a semi-perennial rustic crop which is resistant to climatic hazards such as frost and hail storms. Harvesting is completed before the frost period (July and August) and starts again once the period has finished in September. A single plantation can produce two crop cycles per year, each lasting three months, for a period of four years. These conditions make the crop suitable for the needs of small-scale farmers by providing them with liquidity throughout the year.

### **Setting**

#### **Geographic location of the project**

The project was implemented in the Mantaro Valley in the Department of Junín, which is characterized by intensive agricultural activity. This inter-Andean Valley, bounded by the central and western branches of the Andes, has good connections through the central highway to the city of Lima. Agricultural activity is very dynamic and the region is one of the main suppliers of food for the city of Lima.

In the lower Mantaro Valley, artichokes are grown in the provinces of Huancayo, Concepción, Jauja and Chupaca. According to data from the General Agricultural Information Department (DGIA), Junín accounted for 55% of total artichoke production in 2002, with La Libertad producing 23%, Ica 21%, Apurímac 1% and Lima 0.37%

Artichoke cultivation is spreading rapidly among various types of farmers in the irrigated zones of the Mantaro Valley, because it is a crop that adapts very well to production conditions and producers' needs in this region.

#### **Initial situation**

Peru has several climate zones that are suitable for artichoke growing, although production is concentrated in the Department of Junín, where 241 ha are cultivated – 70% corresponding to the *criolla* variety and the other 30% to the spineless *Green Globe* artichoke, which is sold to agribusiness.

Data from the DGPA diagnosis of the artichoke business chain shows that national output has been growing steadily, from 2,360 tons in 1996 to 8,722 tons in 2002 – an increase of 269%.

In the region selected for implementation of the business partnerships project, there are certain factors that affect the development of agribusiness, particularly in the Mantaro Valley. These include the following:

- Low volumes of artichoke production, which fail to satisfy demand both abroad and domestically.
- The existence of oligopsonistic market structures, which raises the purchasing power of buyers when marketing the product.

- Unfavourable terms of trade for producers, which result in a low price paid by buyers of artichokes.
- Low-quality production, which does not meet market requirements and demands.
- Lack of business infrastructure: there are no post-harvest management units, warehouses or agribusiness processing plants.

### **Economic data**

In Peru, one of the most serious problems facing agriculture at the national level is the limited availability of resources and technical assistance services, in addition to a high level of the decapitalization and indebtedness, resulting from high interest rates and a lack of credit services suited to small-scale agriculture. In 2001, 58.4% of the Peruvian population was living below poverty line.

Based on DGPA data, the profile of the artichoke chain producer is as follows:

- Farmers producing artichokes cultivate a total area of between 0.5 and 10 ha, on plots ranging between 0.5 and 2.5 ha, with an average of 1 ha.
- Many producers do not hold ownership title on the land used to grow their products.
- Their educational level ranges from medium to low.
- Most producers belong to the Mantaro Valley Vegetable Producers Association (APHOVAM), or to the Irrigation Users Board.

### **Project stakeholders**

Public and private organizations and institutions operating in this chain include the following: the Ministry of Agriculture, acting through DGPA and its regional offices; the local office of the National Agricultural Research Institute (INIA); The Peruvian Agricultural Competitiveness and Innovation Project (INCAGRO); and the National Agricultural Health Service (SENASA), among others.

### **Chain structure**

#### **Suppliers**

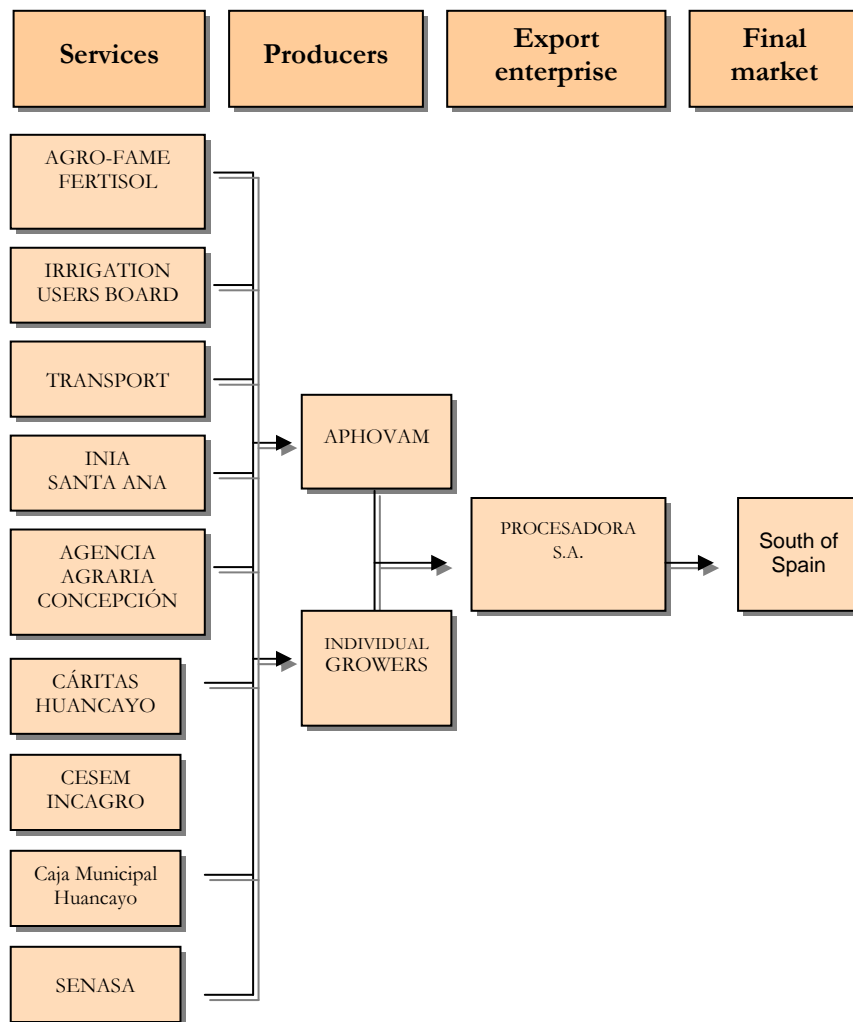
The artichoke production link involves about 100 small-scale farmers, particularly in the province of Concepción, who have planted both spiny and spineless artichokes for sale on the domestic and international markets. The main producer organization operating in the region is APHOVAM, which encompasses 25% of artichoke farmers (both spiny and spineless varieties). Individual farmers who do not belong to APHOVAM also cultivate spineless artichokes.

A large number of firms provide services to the artichoke chain, including the Irrigation Users Board, which is responsible for managing irrigation water used in spineless artichoke plantations,

along with transporters, who carry the product from the field to the processing plant. Other service-providers include SENASA and CESEM, which is an NGO providing technical assistance.

Materials and equipment are purchased using farm credits provided by the MINAG Revolving Funds Program, and loans from the Huancayo Business Services Centre. Inputs and services are provided by commercial enterprises and NGOs (Caritas).

**Figure 6. Structure of the spineless artichoke chain**



*Source:* Final report of the National Consultant for Peru for the artichoke chain.

## Marketing

Artichoke producers sell directly to agribusiness, mainly through the firms Procesadora SAC, Agroindustrias Backus, Nicolini Hnos. and Agroindustrias Damper S.A. The agribusiness exporters DAMPER and Agrobackus purchase spineless artichoke for the external market.

Procesadora SAC is an agribusiness aimed at agricultural exports, whose working method involves planting on a contract basis with small-scale farmers, both on the coast and in the mountains. The enterprise buys, processes and exports the product to the Spanish market, for which it has processing plants located in the departments of Lambayeque and Junín. At the present time, however, the firm is only working at 10% of its installed capacity because product supply is not constant.

### Project activities

In both the artichoke and lentil chains, project activities were the responsibility of the Agricultural Development Foundation (FDA) of the University of La Molina, in conjunction with the project team in Peru and the FAO Regional Office. The project was implemented through the activities sequence under the business partnerships approach: a workshop to identify problems and training needs, a training workshop, and a business coordination workshop in the Junín region.

### **Identification workshop**

This workshop drew participation from producers and both public- and private-sector representatives, prioritizing wide-ranging participation by small-scale producers to ensure their interaction with other stakeholders in the chain and to obtain their opinion and contribution in workshop activities.

A presentation entitled *Business partnerships for food security and rural development* was given for the purpose of specifying the project's objectives, thereby making it possible to clarify the context and scope of the work to be undertaken.

The aims of the identification workshop include the following:

- Identify problems and needs in the artichoke chain and the advantages available to producers by participating in the chain.
- Identify training needs with a view to promoting and developing business partnerships.

The workshop methodology involved activities on three levels: exhibitions, group work with facilitators, and presentations and plenary discussion of the group work results. The exhibitions and presentations transmitted concepts relating to the market, sales and marketing, agribusinesses, agrifood chains, organization and management tools, and others.

The work groups were composed of producers and other public- and private-stakeholders, which made it possible to address the problems of the artichoke chain from various points of view. It was essential for participants to be able to express their concerns and ideas on the development

of the chain and to reach consensus with other related sectors.

### **Training workshop**

The training process was divided into two consecutive modules lasting four days in total. Module I was aimed at improving the engagement of the small-scale producer in the business chain, while Module II focused on developing management and negotiation capacities in three working sessions.

The objectives were as follows:

- To provide training on farmer organization types, designs and business management, and on the use of monitoring and evaluation tools allowing for their growth and sustainability through time.
- To provide training in skills and techniques for the promotion of business partnerships, by developing negotiation and business management capacities, to lay foundations to promote cooperation and collaboration.

Participants in the training activities included small-scale producers of spineless artichokes, stakeholders participating in the production and marketing of the product, and officials from public and private institutions that provide technical assistance and services to stakeholders in the chain.

### **Coordination workshop**

Given the importance of the final phase of project execution, the project team held intensive consultations and awareness-raising meetings with various buyers of the product and with farmers, to inform them of the aims and scope of this workshop.

This exercise served to identify the supply and demand existing on the market, and the firms that were in a position to work directly with producers under a business partnership approach.

The coordination workshop was held in the province of Concepción, the leading artichoke producing zone. The event was attended by producers from the Mantaro Valley belonging to APHOVAM as well as independent farmers from Concepción, San Jerónimo, Quichuay, Orcotuna, Huancayo and Hualhuas; representatives of governmental organizations (Ministry of Agriculture, National Institute of Agricultural Research, National Agricultural Health Service); NGOs (Cesem-Huancayo, Idea-Perú, Caritas); industry representatives (Procesadora SAC, Hersil, Aurandina); and representatives of other entities (Incagro, MIP FAO, FEDEJ, Red de Facilitadores). Representing the project team were FDA consultants, a representative of DGPA (counterparty) and FAO, led by the Representative in Peru.

The aims of the coordination workshop were as follows:

- To bring the artichoke demanding industry closer to producers (supply), with a view to encouraging commitments or agreements aimed at improving commercial relations, as well as business partnerships and agribusinesses.

- To identify new businesses, bearing in mind the coordinated work between the various stakeholders in the artichoke business and commercial chain.

The methodology used involved establishment of workgroups; analysis of the business, supply and demand of the good or service; identification of stakeholders involved; and establishment of forms of agreement.

### **Outcomes and lessons learned**

#### **Identification workshop**

A total of 28 people participated in the identification workshop, of whom 16 were either producers from the APHOVAM organization or independent. The remainder were officials and technicians from the public and private sectors, including NGOs.

The work done in the identification workshop produced the following results:

- The workshop enabled farmers to express their opinions and ideas, focus the problems they face and discover the external factors that prevent or promote chain development. Training needs on organization, management, marketing and marketing issues were also identified.
- Chain stakeholders are unaware of the size of the market, its requirements, and the alternatives for artichoke products and sub products.
- Although the current buyer enterprise (Procesadora SAC) established a plant in the region, its purchases are limited, and it is only working at 10% of installed capacity (underused capital) owing to insufficient supply of the product under the necessary conditions.
- Institutions related to the chain do not work in coordinated fashion; and the specific interests and approaches of each institution predominate, without a strategic view prioritizing competitive development of the chain as a whole.

Although businesses are being developed in the agricultural value chain, the viability of the artichoke market has not been studied. In other words, producers have a single buyer and a single market, so there is a need to open alternative markets and invest in product development.

#### **Training workshop**

A total of 25 people participated in the training activities, of whom 15 were producers, two were enterprises and eight were officials and technicians from the public and private sectors.

The identification workshop produced the following results:

- Business plans were developed for three enterprises: Empresa Producción Agraria Valle del Mantaro SAC, aimed at the production (volume) and marketing of spineless artichokes; ALSAC for subproducts based on artichoke waste material; and Consultores

Técnicos Asociados, to provide agricultural technical assistance and innovation services.

- Aspects of supply and demand were discussed, identifying the critical points, solution proposals and the resources needed to gain access to the services. Work was also done on cash flows.
- In terms of methodology, both the presentations and the language used by the facilitators used concepts that were complex to transmit to local producers and technicians, and this impeded communication and made it difficult to fully comprehend.

### **Coordination workshop**

The coordination workshop attracted participation from 53 stakeholders in the artichoke chain, of whom 20 (36%) were affiliated to APHOVAM and 15 were independent. Six business representatives also participated along with 26 representatives from public-sector institutions and NGOs.

The work done in this workshop produced the following results:

- The existence of potential buyers generated motivation and interest in solving the problems identified in the chain, among both farmers and institutions.
- The methodology applied made it possible to clearly identify the characteristics of demand and the institutions available to solve the problems. It also made it possible to detail the problems that exist in satisfying that demand.
- Although the coordination workshop did not lead to immediate business deals it did create a base for undertaking businesses in the short or medium term, provided commitments are effectively monitored and the work plan agreed upon is fulfilled.

### **Lessons learned**

- It is advisable to make an analysis of chains prior to the workshops, to identify the main strengths, weaknesses, opportunities and threats before the start of the process. Farmers with low levels of education need training materials that make it possible to associate the concepts with their immediate reality. Concepts should therefore be simple and illustrated with examples drawn from their immediate reality through visual representation.
- Presentations should try to transmit concepts in the simplest way possible, using the most appropriate language. It is advisable to make short presentations linking concepts with examples from the local rural reality, to ensure local producers and technicians fully understand the issues being discussed.
- Follow-up and monitoring of the agreement should be included in the methodology, to make it feasible to reach agreements formulated in the coordination workshop. In some

cases, these agreements might not be achieved because of financial or technical constraints that are outside the control of participants in the coordination desks. Part of the monitoring should therefore aim to help overcome these constraints, either by making additional resources available or through interagency coordination.

- Where producers are located should be taken into account, to prevent distance from affecting attendance at the workshops, training sessions and seminars held.

**Table 9. Factors that favour and obstruct building business partnerships in the artichoke chain.**

STRUCTURE OF THE CHAIN	ECONOMIC STAKEHOLDERS	SETTING
<p><b>Favour</b></p> <ul style="list-style-type: none"> <li>▪ Possibility of new agribusiness products.</li> <li>▪ Underused agribusiness capacity.</li> </ul>	<p><b>Small-scale producer</b></p> <ul style="list-style-type: none"> <li>▪ Interest in connecting to the market.</li> <li>▪ Interest in developing business management capacities.</li> </ul>	<p><b>Institution</b></p> <ul style="list-style-type: none"> <li>▪ Existence of a coordination desk for the artichoke chain.</li> <li>▪ High presence of NGOs interested in supporting business processes.</li> </ul>
	<p><b>Organization</b></p> <ul style="list-style-type: none"> <li>▪ Common territory.</li> </ul>	<p><b>Market</b></p> <ul style="list-style-type: none"> <li>▪ Non-traditional product with high demand in the European and United Governments markets.</li> <li>▪ Potential demand for new products.</li> </ul>
<p><b>Obstruct</b></p> <ul style="list-style-type: none"> <li>▪ High heterogeneity of plantations limits product quality.</li> <li>▪ Production system not coordinated with the market.</li> <li>▪ Small-scale producers not connected to the chain.</li> </ul>	<p><b>Small-scale producer</b></p> <ul style="list-style-type: none"> <li>▪ Individualism and mistrust.</li> <li>▪ Low level of education.</li> <li>▪ Lack of financial management capacity.</li> <li>▪ Lack of capital.</li> </ul>	<p><b>Institution</b></p> <ul style="list-style-type: none"> <li>▪ Lack of public institutions aimed at promoting and supporting agribusinesses.</li> <li>▪ Lack of training of agribusiness technicians and business vision.</li> <li>▪ Discoordinated institutional work.</li> </ul>
	<p><b>Organization</b></p> <ul style="list-style-type: none"> <li>▪ Weak producer organization.</li> <li>▪ Lack of common objectives.</li> <li>▪ Organizational forms lack a business approach.</li> </ul>	<p><b>Market</b></p> <ul style="list-style-type: none"> <li>▪ High level of intermediary activity.</li> <li>▪ A single buyer (IDEA-Perú) and a single destination: Spain.</li> <li>▪ Terms of trade unfavourable for producers.</li> <li>▪ No market strategy defined.</li> </ul>



Lentils (*Lens esculenta*) are one of the world's oldest crops with some 8,000 to 9,000 years of history. Cultivation was originally centred in Iraq, from where it spread to neighbouring countries such as Greece, Bulgaria, etc. Later on it was introduced into Europe, and from there it expanded to other countries including the American continent.

## **Setting**

### **Geographical location**

The project was implemented in the province of Cajabamba in the north of Peru, 124 km from the city of Cajamarca. This is mainly a farming province, and lentil is the most important crop. The selected zone has a substantial cluster of small-scale farmers living in extreme poverty, whose income is provided by the earnings generated by this crop.

The province of Cajabamba also has an important group of institutions that have been collaborating to solve the various problems faced by small-scale producers in the region. The region selected for the project is considered the largest producer of vegetables<sup>14</sup> in Peru: over 30,000 ha of beans, peas, lentil and broad beans are under cultivation, yielding just over 22,000 tons of dried grain, from which 80% of national lentil production is obtained.

### **Initial situation**

One of the main advantages of lentil cultivation in this zone is the product's quality (grain size and advantages for cooking), along with the low use of chemical inputs in its production – a factor that could be important in a future “green” market.

Experience shows that very small changes in crop management, such as the use of quality seeds and organic fertilizers, can increase yields significantly.

The department of Cajamarca has potential for increasing areas of peas (*arveja*) and lentil cultivation, to satisfy a large part of domestic demand, which is currently supplied by imports mainly from Canada and the United Governments.

### **Economic data**

The Cajamarca region, traditionally devoted to farming, is famous for its output of milk and dairy products. There has been significant regional GDP growth since 1993, since the Yanacocha mine came on stream. Nonetheless, this growth is not yet impacting on the regional economy as a whole, and particularly the small-scale farming sector.

GDP per capita in the Cajamarca department doubled over a seven-year period (1993-2000), in a reversal of the trend prevailing at the start of the decade. Nonetheless, this significant growth rate contrasts with the fact that the Department of Cajamarca was still one of the five poorest

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<sup>14</sup> Beans (*fríjol*), lentils, peas (*chícharo*), broad beans (*haba*).

departments in Peru as of 2000.

DGPA data show that the profile of producers in the lentil chain displays the following characteristics:

- Producers occupy total areas ranging from 0.75 to 5 ha, and those in the province of Cajabamba assign between 0.25 and 1 ha for lentil cultivation; yields average 630 kg/hectare. The vast majority of farmers have received technical training in lentil cultivation practices.
- Nearly all farmers belong to an association promoted by the various institutions located in the zone; those with greatest coverage include ADRA, PRONAMACHS and CARE.
- It has also been noted that farmers working with NGOs receive credit from these institutions; but producers who do not accept the payment conditions, or lack collateral, are unable to benefit in this way.

### **Project stakeholders**

The main stakeholders in the Cajabamba lentil chain include the following:

Farmers' organizations: Various institutions located in the province of Cajabamba have been working to organize farmers in the zone, not under a product rationale but on a spatial basis, given the complexity of the zone's geography.

Intermediaries: Although attempts are being made to generate alternative marketing mechanisms, thus far lentils are marketed by dealers (*acopiadores*) and intermediaries, who set prices in the absence of alternative marketing channels.

Local intermediaries (brokers): Various commercial stakeholders intermediate in the lentil commercial chain. The system operates through local fairs where produce is collected for transport to regional markets. Farmers attend these fairs with their produce and trade with brokers.

Final markets: The final product is purchased on the markets of Cajamarca, Chiclayo, Trujillo and Lima. These markets receive the product through the 15 different intermediaries operating in the commercial chain; but there is little systemized information on these commercial circuits.

### **Chain structure**

The main participants in the lentil business chain nationwide are as follows: producers, intermediaries, local dealers, wholesale distributors, transporters, retail distributors, processors, packers, retailers, brokers or forwarders and foreign trade stakeholders.

In Cajabamba the commercial chain is formed by producers, intermediaries and the regional market. Alongside the chain there are various support services, including the public and private sectors and NGOs.

## **Suppliers**

The institutions with greatest coverage are ADRA, CARE, PRONAMACHS and CEDEPAS.<sup>15</sup> At the present time, there are three farmers organizations encompassing roughly 300 producers from Cajabamba.

Institutions that provide their services to the lentil chain include the following:

General Agricultural Promotion Department (DGPA-MINAG): DPGA has been working actively to promote and reach agreements with member institutions of the chain; thus far it has achieved a good level of collaboration between them through the Agrarian Pillar of the Cajabamba Poverty Reduction Roundtable. The Agrarian Pillar has a work plan that involves all institutions of the zone and the provincial municipality; and it has prioritized the promotion of beef cattle and dairy products, as well as the production of guinea pigs and vegetables, including lentils, and some fruits.

Agencia Adventista para el Desarrollo y Recursos Asistenciales [Adventist Agency for Development and Assistance Resources](ADRA): ADRA supports the organization of lentil farmers in Cajabamba, and provides technical production and management assistance; it also has an agreement with FAO to run five field schools to train trainers.

National Institute of Agricultural Research (INIEA): The Cajabamba INEA, which includes advisory services from the Chiclayo and Promenestras Experimental Station, has developed the INIEA 401 lentil variety, which is adapted to the characteristics of the zone and has a 90-day production cycle.

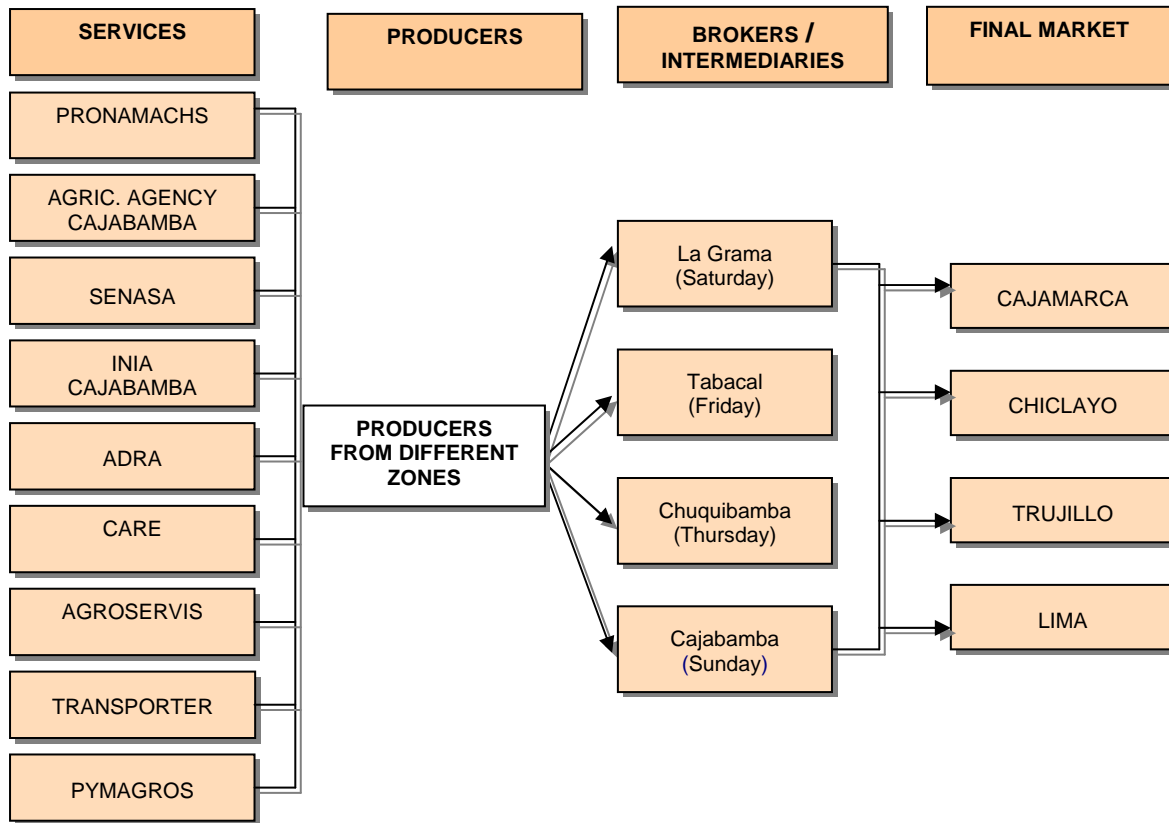
CARE: This institution introduced a national strategy to promote agribusiness in the fight against poverty, seeking to link various actors within the promotion of local development.

Highland Agricultural Products and Markets Project (PYMAGROS): PYMAGROS is a Swiss Cooperation project aimed at generating alternative products and markets for highland agriculture. Its proposal is the Agricultural Negotiation Roundtable (MENA), a system that seeks to classify and store production while awaiting better prices.

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<sup>15</sup> Agencia Adventista para el Desarrollo y Recursos Asistenciales [Adventist Agency for Development and Assistance Resources] (ADRA); Proyecto Productos y Mercados para el Agro de Sierra (PYMAGROS); Proyecto Alivio y Reducción de la Pobreza [Poverty Reduction and Relief Project] (PARA-USAID); Programa Nacional de Manejo de Cuencas Hidrográficas y Conservación de Suelos [National River Basin Management and Soil Conservation Programme] (PRONAMACHS); Centro Ecuménico de Promoción y Acción Social [Ecumenical Centre for Social Action and Advancement](CEDEPAS).

**Figure 7. Structure of the lentils chain**



Source: Final Report of the National Consultant for Peru

## Marketing

Lentils are marketed by dealers and intermediaries that set prices in the absence of alternative marketing channels. The system works as follows: intermediaries operate in local fairs, where they collect the produce for transport to regional markets. The main weekly fairs are at Chuquibamba, Tabacal, La Grama and Cajabamba. Farmers attend these fairs with their produce, and they trade with dealers who often also provide technical assistance and provide services. The product is demanded in the markets of Cajamarca, Chiclayo, Trujillo and Lima, where lentils arrive through the various intermediaries operating in the commercial chain, with transporters conveying the produce from the farm to local fairs.

In general terms, the lentil chain marketing circuit is poorly understood; only a small number of studies have been done by a few institutions, and the results have not yet been shared in the interagency domain.

## Project activities

For the lentil chain, the work was also the responsibility of the consultant team from the Agricultural Development Foundation of the La Molina University, working in close

coordination with the project team in Peru and the FAO Regional Office.

As was the case in the artichoke chain, the activities sequence was implemented under the business partnerships approach: a workshop to identify problems and training needs, a training workshop, and a business coordination workshop.

### **Identification workshop**

All workshop activities were held in the city of Cajabamba, Peru's main lentil-producing zone. The aims of the identification workshop were as follows:

- To identify the problems and needs faced by the lentil chain, and the advantages available to producers by participating in the chain.
- To identify training needs.
- To promote and develop business partnerships.

The workshop was attended by small-scale lentil producers and stakeholders working in marketing and the provision of services to the primary link in the chain. As a way of specifying the scope of the project, a presentation was made entitled "Business partnerships for food security and rural development", to clarify the context and scope of the work to be undertaken.

Small-scale producers participated very actively both in the group work and in the presentations. The corresponding dynamics enabled farmers to intervene in the design of the lentil and marketing chain, express their problems in relation to the product and the chain, and be listened to by representatives of the institutions.

### **Training workshop**

The training activities lasted a total of four days and were divided into two work modules. The first, to improve the engagement of the small-scale producer in the lentil chain, was held in the city of Cajabamba in September. The second, aimed at developing management and negotiation capacities, was held in the city of Chiclayo in October. At the request of producers, the process was not consecutive, but the modules were held at different times and in different places. The challenge was to enable producers to visualize the advantages of collaboration to generate economies of scale – volume, quality – and to improve their negotiating capacity in the agricultural value chain.

There was wide-ranging collaboration from the DGPA office in Cajabamba, and from institutions comprising the Eje Agrario, in coordinating the logistics of the activities. There was also collaboration from PRONAMACH to convene producers from more remote districts such as Huacra and Sitacocha.

Visits were made to the vegetable seed collection and an irrigation module (artificial lake), with its droplet distribution system. Demonstration fields were also visited for a number of vegetables, in which studies were presented on pest control, fertilization, sowing methods and cultivation practices, among others.

## **Coordination workshop**

The lentil chain coordination workshop was held in the city of Cajamarca and was attended by producers from the Cajabamba Valley; other participants included representatives from public institutions and NGOs, such as the Ministry of Agriculture, the National Agricultural Research Institute and the National River Basin Management and Soil Conservation Programme.

On the demand side, lentil wholesalers and distributors operating in Chiclayo were present, along with a representative of a supermarket from that city.

The aims of the coordination workshop were as follows:

- To bring the lentil demand side and producers (supply side) closer together to generate partnerships.
- To establish commitments or agreements aimed at improving commercial relations and eventually identify new businesses, in view of coordinated work between the various stakeholders comprising the lentil chain.

## **Outcomes and lessons learned**

### **Identification workshop**

The workshop was attended by 41 people, of whom 29 were producers (69%) from the Cajabamba Valley. From the institutional sector, 12 people attended from Dirección Agraria, CARE-Cajamarca, Agencia Agraria, ADRA, INIA, PRONAMACHS and PYMAGROS.

The activities undertaken in the identification workshop produced the following results:

- The institutions in charge are not working in coordinated fashion, and their technicians lack the knowledge needed to provide good technical assistance.
- Commercial market alternatives are unknown; and there is no systemized information on this and its potential. Institutions working in markets send conflicting signals to the producer, thereby hindering the accomplishment of business deals.
- In terms of organization, the producers governmentd that the organizations that function respond to the specific interests of the institutions that promote them, rather than the producer's real needs. The organization does not respond to an economic and market rationale.
- Work on the institutional level is discoordinated, and the interests of each institution predominate. This problem is complex in the specific case of lentils, which hinders producers' organizational development.

### **Training workshop**

Module I (Cajabamba) drew participation from a total of 54 people: 37 producers (68%) representing hamlets (*caseríos*), three small-scale women traders (6%) and 14 members of public

institutions and NGOs (26%). Module II (Chiclayo) was attended by 25 people, of whom 17 were producers (68%), nine were representatives of hamlets, three small-scale traders (12%) and five technicians (20%) from public institutions associated with the lentil chain.

As a result of session 3 of training module I, business plans were developed for three fictitious enterprises: a firm producing and marketing top-quality lentils entitled “Granito de Oro”; a production and marketing enterprise named “Campo Sol”; and a warehousing, value-added and marketing enterprise known as “Nuevo Amanecer”.

The activities carried out in the training workshop produced the following results:

- The work groups revealed the constraints they currently face in organizing themselves: competition in the market, lack of coordination, problems between partners, ineffective leadership, among others.
- Direct observation through guided tours is the best form of training for producers with basic levels of education, since it enables them to see the reality directly, ask questions on what was learnt, and generate a high level of motivation for the organization and improvement of their product. This was seen in the field visit made in Cajabamba and the tour to Chiclayo, where producers found out about the lentil commercial circuit.
- Close sharing – producers, technicians and small-scale traders – during several working sessions, made it possible to initiate a knowledge process to lay foundations for subsequent relationships of trust, which are indispensable for doing business.
- The role played by trainers is crucial for transmitting content, so it is advisable to adapt the methodology using communication tools that transmit clear messages effectively.
- The contents and materials designed need to be adapted to the reality of the recipients of the selected chain, based on the education levels of the target public, levels of structuring of the agricultural value chain and the geographic conditions in which the business linkages are developed.

### **Coordination workshop**

A total of 45 people attended the event, of whom 14 were producers from the Cajabamba valley, six were lentil traders from the city of Chiclayo, five of them wholesalers from the Moshequeque wholesale market, and a representative from the Centro supermarket in this city, together with 25 representatives from the region’s public and private sector.

The work done in the coordination workshop reduced following results:

- The workshop made it possible to identify the characteristics of demand, and to specify the effort needed to satisfy this in terms of the quality, volume and timeliness of supply.
- The greatest impact for lentil producers was the discovery that there were demanders of the product, and unsatisfied potential demand.

- Small-scale producers could link directly with eight lentil wholesalers from the most important market in the northern region.
- Contacts were initiated between small-scale lentil producers and both wholesale and retail markets.
- Pre-agreements were established between lentil producers and wholesalers from Chiclayo.

### **Lessons learned**

- Holding the courses has revealed the importance of conducting a diagnostic test of needs prior to training. This means analysing the type of destinations, determining training needs, structuring contents and methods, and, lastly, analyzing the context in which training will take place. It is important to create a training baseline for users as from the design stage, for the purpose of subsequently evaluating course progress.
- In the two chains worked on, it was found that the main problems arise in the production, post-harvest, organization, business management and marketing domains. An important factor is that the viability of the market for the two products is not demonstrated. In the case of artichokes, producers have a single buyer, whereas in the case of lentil, the product produced in Cajabamba is competing with Canadian-grown lentils which dominate the regional market.
- As communication is a fundamental tool for achieving project objectives, the contents and materials designed need to be taken into account and adapted to the reality of those receiving the information, who often have a low level of education.



**Table 10. Factors that favour and obstruct building business partnerships in the lentils chain.**

STRUCTURE OF THE CHAIN	ECONOMIC STAKEHOLDERS	SETTING
<p><b>Favour</b></p> <ul style="list-style-type: none"> <li>▪ Existence of collection centres at different points.</li> <li>▪ Promotion of collection networks.</li> </ul>	<p><b>Small-scale producer</b></p> <ul style="list-style-type: none"> <li>▪ Interest in connecting to the market.</li> <li>▪ Interest in developing business management capacities.</li> </ul>	<p><b>Institutional</b></p> <ul style="list-style-type: none"> <li>▪ Functioning of the agricultural pillar of the Cajabamba Poverty Reduction Roundtable, a provincial organization involving all institutions of the zone and the provincial government.</li> <li>▪ High presence of NGOs interested in supporting the lentils business process.</li> </ul>
	<p><b>Organization</b></p> <ul style="list-style-type: none"> <li>▪ Common territory.</li> </ul>	<p><b>Market</b></p> <ul style="list-style-type: none"> <li>▪ Unsatisfied domestic demand.</li> <li>▪ Existence of own brand of lentils «La Cajabambina».</li> </ul>
<p><b>Obstruct</b></p> <ul style="list-style-type: none"> <li>▪ Concentration of harvest (June-August)</li> <li>▪ Discoordinated production system.</li> <li>▪ Small-scale producers not connected to the chain.</li> <li>▪ Geographic discoordination of the links of the chain.</li> </ul>	<p><b>Small-scale producer</b></p> <ul style="list-style-type: none"> <li>▪ Geographic isolation.</li> <li>▪ Very low levels of education and training.</li> <li>▪ Little or no management capacity.</li> <li>▪ Lack of knowledge of market operation.</li> </ul>	<p><b>Institutional</b></p> <ul style="list-style-type: none"> <li>▪ Lack of public institutions aimed at promoting and supporting agribusinesses.</li> <li>▪ Discoordination in institutional work.</li> <li>▪ Lack of a strategy to prioritize the development of a business chain.</li> </ul>
	<p><b>Organization</b></p> <ul style="list-style-type: none"> <li>▪ Low levels of organization.</li> <li>▪ Lack of common objectives.</li> <li>▪ Lack of horizontal integration to create products supplier, manage resources and to increase bargaining power.</li> </ul>	<p><b>Market</b></p> <ul style="list-style-type: none"> <li>▪ High fluctuation of international prices.</li> <li>▪ Distance from commercial centres.</li> <li>▪ Ignorance of market and requirements.</li> <li>▪ No market strategy defined.</li> <li>▪ Grants distort the market (prices).</li> <li>▪ Deficient market information system.</li> </ul>

In Mexico, the project was implemented in the Mexican lemon and mango chains. The first of these involves producers with good technical levels, market orientation and a business vocation. The chain suffers from inefficient articulation, however, particularly in the upper links (packing and agribusinesses), and this has repercussions on primary production and overall product competitiveness.

The second chain chosen was mango, which comprises producers, dealers or intermediaries, packers, distributors and consumers. There are also wide-ranging prospects in the domestic and international markets. Nonetheless, production levels are too low to satisfy consumer demand both current and potential.

Two varieties of lemon are grown in Mexico – persa (30%) and Mexican (70%) – differentiated by production zones, types of land (irrigation and rainfall-reliant), marketing arrangements, etc. The two varieties complement each other to satisfy demand on the domestic market (Mexican) and the international market (persa) (FIRCO, 2003).<sup>16</sup>

Mexican lemon has been grown in the government of Colima since the mid-1920s and is currently the zone's main agricultural crop. Its cultivation area of nearly 32,000 ha makes the region the country's leading Mexican lemon producer, harvesting over 500,000 tons for an average yield of just over 13 tons per hectare; and it provides employment for about 20,000 families, in production, crop management, cutting, packing, industry and suppliers.

About half of all Mexican lemon production is sold on the domestic market to be consumed fresh, in the form of juice or cooking seasoning, and the rest goes to industry for use as an input in the production of essential oil and pectin, juice concentrates and lemon peel. Essential oil is the raw material used in manufacturing fizzy drinks, pharmaceutical products, flavourings, and perfumes and soaps.

The Colima Mexican lemon business chain was chosen for the business partnerships project mainly for the following reasons:

- The Mexican lemon value chain is important in Colima, both because of the area it occupies and because of the value of its production and the employment it generates throughout the chain – from orchard through packing to industry. Having said that, the links in the agricultural value chain structure are inefficiently articulated.
- Some economic stakeholders (producers) in the chain have achieved synergies to solve problems in the chain, exercising leadership and taking control of their business.
- The government of Colima is home to the Government Mexican Lemon Council (COELIM-Colima), which is affiliated to the National Lemon Council (CONALIM)<sup>17</sup> forming an institutional framework that promotes development of the lemon value chain network. The Colima area also has a socioeconomic setting with a market-oriented business vocation.

## **Setting**

### **Geographical location**

The project was implemented in the Mexican lemon chain in the government of Colima, located in the western part of the country on the southern Pacific Ocean coast. The region occupies a land area of 5,542 km<sup>2</sup> (0.3% of national territory) and has 10,000 ha of inland waters. The

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<sup>16</sup> Note justifying the Mexican lemon chain, Shared Risk Trust Fund (FIRCO), March, 2003.

<sup>17</sup> Like the national councils of several business chains, government councils have been established in Mexico since 2000, to fulfil the mandate of the Sustainable Rural Development Act.

municipality of Tecomán is the main Mexican lemon producer in Colima, with roughly 63% of its land area devoted to this crop.

This municipality is also home to most of the packing infrastructure. Apart from the municipality of Tecomán, other Mexican lemon producing zones include Armería (23%) and Manzanillo (5.6%).

The peak period for Mexican lemon production in Colima is May through September, when 62% of production is harvested. The proportion destined for the market as fresh produce is greater in the low production months (January to April), while that destined for industry is higher in the months of high production (May to September). Over the last 10 years, the share of the fresh market has varied between 50% and 70% and that of industry from 50% to 30%.

### **Initial situation**

Citrus crops are grown in 27 Mexican governments over a land area amounting to roughly 400,000 ha. This includes both irrigated and rainfall-reliant land, with an annual average production of 5,000,000 tons and yields varying from 11 to 19 tons per hectare, depending on the crop (COELIM, 2002). Oranges account for 63% of the total citrus crop, followed by lemon (both Mexican and persa) with 23%, and the remaining 14% shared between grapefruit (*Citrus grandis*) and mandarin (*Citrus reticulata*).

While Mexico's proximity to the main import market, the United States, gives it a comparative advantage over other exporting nations, it obtains lower yields than countries such as Argentina, Iran and Spain.

Lemon prices have fluctuated widely since 1980, and the price of fresh Mexican lemon has fallen in real terms since 1994. Variations in the prices paid to producers depend on a variety of factors, including the seasonal nature of production, the technological level of the orchard, and the organization of marketing.

The productivity and profitability of Mexican lemon growing depends on factors such as the type of land holding (land owned collectively by the community, known as "*ejido*", and smallholdings), the production system (monoculture or associated) and the availability of water for irrigation. Other important factors include the application of fertilizers and pesticides; cultivation tasks; technical assistance; and financing.

### **Economic data**

Agricultural GDP in Mexico grew by 1.9% in 1990-2003, compared to just 0.5% between 1980 and 1990 (FAO, 2004). One of the regions that contributes most to agricultural GDP is Colima, which helps create jobs in the countryside and in industry, as well as generating foreign exchange earnings from the exportation of fruit and vegetable products, both fresh and processed.

There are about 3,600 Mexican lemon producers – 84% *ejidatarios* (collective owners) and 16% small-scale proprietors. *Ejido* properties cover an area averaging 5 ha, whereas privately owned properties average 29 ha. Thus, 46.8% of the area cultivated with Mexican lemon is under collective *ejidal* ownership and the remaining 53.2% are smallholdings.

Mexico was the world's leading lemon producer as of 2000, accounting for 13% of the global total, followed by Argentina, India and Iran with 10% each, Italy and United Governments with 7%, and Brazil with 5%, with total production exceeding 1 million tons (CONALIM, 2001).

The destination of Mexican lemon exports is distributed between the European Union (France and Germany) and Japan (17%), and Canada and the United Governments (80%). The main market was United Governments, with an 81.56% share, followed by Japan (2.63%), United Kingdom (2.85%) and France (2.72%). In recent years, Switzerland, Canada and the Netherlands have increased their consumption of Mexican persa lemon.

### **Chain structure**

#### **Producers**

The Mexican lemon value chain in Colima consists of producers, dealers or intermediaries, packers, service stores, supply centres, transporters, industry and marketers. The various economic stakeholders are related to the crop's two main products: fruit for fresh consumption and processed products – essential oils, juices and pectins.

Producers sell their Mexican lemon production fresh to intermediaries and/or packers, who, after packing the lemons distribute them to the market as fresh produce and to industry through central supply warehouses and supermarkets.

#### **Marketing**

Production is mainly purchased by intermediaries, since little or no organization exists among producers who sell their product individually in small volumes and require payment in cash. The fact that packers require large volumes of the product enables the intermediary to collect production from several producers and deal directly with packers.

Warehouses and supply centres distribute to the main suppliers (supermarkets and retailers of fresh lemon in consumer markets. Supermarkets are grouped together in ANTAD.<sup>18</sup>

In the government of Colima there are roughly 50 packing operations of which only a few have cold store facilities to conserve the fruit before it is sent to the market. On the other hand, as the packers pay suppliers 7 to 15 days in arrears, many producers are forced to sell their production to intermediaries.

Packers play an important role in the chain, by directly supporting producers who cut an average of 3 tons per day – 100 field boxes – mainly from small-scale properties, whose producers have their own vehicles. They also are supplied from intermediaries – their own or resellers – who purchase in formal or informal collection centres.

#### **Uses**

In the Colima region there are 20 lemon agribusiness enterprises of which seven industries are

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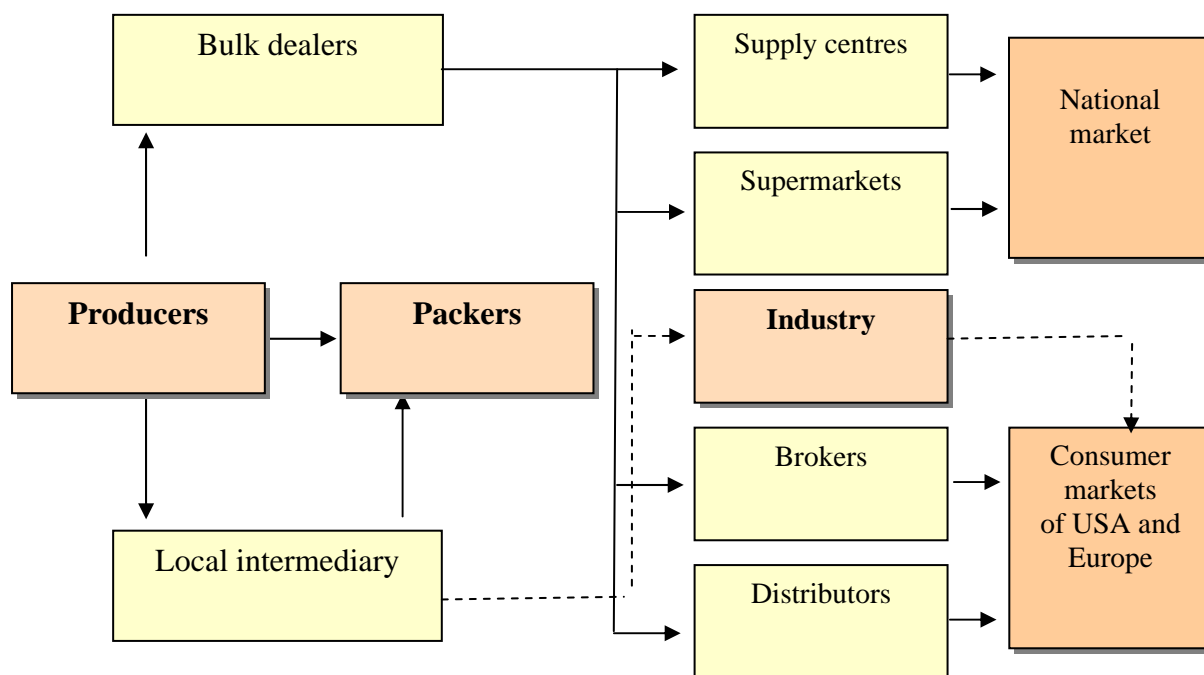
<sup>18</sup> The National Association of Self-Service and Departmental Stores promotes the development of retail trade. The association encompasses 102 retail chains, of which 49 are supermarkets.

currently operating, five engaged in obtaining essential oils (distilled and centrifuged) and juices, and two devoted to the extraction of pectin from lemon peel.

Essential oils and juice concentrates obtained from Mexican lemon are exported, with operations carried out by brokers who supply these products and subproducts to the different consumer industries. Dried lemon peel is used locally by the pectin industry in Tecomán, which supplies this raw material to the pharmaceutical and food industries.

The main industrialized products obtained are: essential oils, distilled and centrifuged, types A and B; citric acid; natural and concentrated juices; aromatic pastes; fresh peel; fresh and dried pulp, citric resins or melacides.

**Figure 8. Structure of the Mexican lemon chain**



Source: Final Report of the National Consultant for Mexico

**Project activities**

Implementation of the activities of the business partnerships project for the Mexican lemon chain was the responsibility of the Technological Institute for Advanced Studies of Monterrey – Mexico City campus (ITESM-CCM), coordinated by technicians from FAO and the Shared Risk Trust Fund (FIRCO), the counterparty designated by SAGARPA for the project.

For project execution, ITESM worked under a demand- and customer-satisfaction approach, with an operating philosophy aimed at continuous improvement to help raise chain competitiveness. Three key project activities were proposed for that purpose: identification workshops, training

modules and coordination workshops for business opportunities.

### **Identification workshop**

The workshop began by compiling data on the Mexican lemon chain and holding an eight-hour meeting with the stakeholders comprising it. The workshop set out objectives and presented a general overview of the work to be done. An awareness-raising talk was then given on paradigms, globalization and its impact on organizations, followed by a participatory diagnostic study of the agribusiness chain, based on identification and analysis of internal factors – strengths and weaknesses, and external factors, opportunities and threats, that affect the performance of the Mexican lemon chain.

The workshop was held on the premises of the Agronomy Faculty of the University of Colima in the city of Tecomán, where the government's main Mexican lemon producers are located.

The objectives of the identification workshop were as follows:

- to report on the business partnerships project and raise participants' awareness of the importance of identifying the situation prevailing in the Mexican lemon chain.
- to identify the strengths, weaknesses, opportunities and threats affecting the efficiency of the Mexican lemon chain and to propose a number of possible solution alternatives.
- to lay foundations for a development plan for the Mexican lemon chain in Tecomán, Colima.

### **Training workshop**

In the second phase of project execution, training aimed to make sure participants knew about the operating process of the agricultural value chain, through visits to orchards of different technical levels, packers with various production capacities, and industries producing essential oil from lemon.

In keeping with the project's objectives and strategic guidelines established by the chain improvements plan proposed by ITESM, training activities were given the following objectives:

- to acquire a modern business culture based on knowledge of the operating process of the Mexican lemon chain – technical visits to links in the agricultural value chain.
- to learn about the methodology for developing a business chain, specifically in Mexican lemon, and also the supplier evaluation system.<sup>19</sup>
- to hold dialogue sessions on the business agricultural value chain, and also gain knowledge of the business management process and participate in agribusiness negotiation dynamics.

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<sup>19</sup> The supplier evaluation system makes it possible to understand the importance of quality throughout the agricultural value chain and to establish a customer-supplier dialogue to define quality specifications based on a demand focus.

## **Coordination workshop**

Among other aims, the coordination workshop sought to trigger formal development processes in the Mexican lemon chain, and the *Chain Dialogue* was held for this purpose.<sup>20</sup>

Before the start of the dialogue, an awareness-raising activity was carried out, consisting of explaining why the buyer from Sanborn's (a restaurant chain) was present, thereby informing dialogue participants of the aim of the session and its scope in advance. The aim was thus to create conditions for dialogue and to avoid false expectations.

The objectives of the coordination workshop were as follows:

- to understand the importance of joint coordination and negotiation to further strengthen relations between the links of the chain.
- to hold a chain dialogue between the various links forming the lemon business chain and the consumer (user).

## **Outcomes and lessons learned**

### **Identification workshop**

The results of the identification workshop were as follows:

- The major participation by COELIM-Colima technicians is explained by the organization's interest in strengthening knowledge of the operation of the value chain and the capacities of field technicians in its organization.
- Foundations were laid for participants to understand the importance of market demand to identify the requirements of each link in the chain, whether producers, packers, industrialists or traders; and to be able to satisfy the consumer.
- Participants identified the strengths and weaknesses (internal analysis) and the opportunities and threats (external analysis) of the Mexican lemon chain.

### **Training workshop**

A total of 27 people participated, including 15 producers from various COELIM-assisted orchards, two packer representatives, one of the owners of a lemon oil production industry, eight specialist technicians from COELIM, and two technicians from the government sector (FIRCO and FIRA).

At the end of the training process, the results were as follows:

- The visits revealed the need for marketing without neglecting quality from the primary production stage through to the consumer.

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<sup>20</sup> The "*chain dialogue*" is an effective tool for establishing a connection between the different links in the agricultural value chain. It puts emphasis on the product's technical characteristics, as a fundamental element for establishing negotiation and as a reference point in price setting.



- There were opportunities to share difficulties, problems and potential in Mexican lemon cultivation, and producers interacted with other important stakeholders in the chain.
- The two modules enabled all links in the chain to come together and meet each other – a new event that generated great interest among participants, as the first step in a process to improve the Mexican lemon business process.
- As a result of the *Chain Dialogue* exercise, the main specifications required by the industry were identified, including: input quality, product quality (size and colour), delivery times, price competitiveness, service, technical assistance, quality assurance and total quality.

### **Coordination workshop**

A total of 44 people participated: 16 producers from various orchards currently being assisted by COELIM; three packing industry representatives, one of whom was also representing the lemon oil producing industry; eight COELIM technicians; a buyer from Sanborn's; and representatives from government agencies (FIRCO, FIRA and the Colima Government Government).

The results of the coordination workshop were as follows:

- The workshop fulfilled its objective of carrying out a dialogue – coordination of the chain between producers, packers and customer enterprises, in an environment of total cordiality, proactiveness and openness of information.
- If transport problems were to arise, it was agreed that suppliers should use all means to ensure the product is delivered by the established deadline, including air transport.
- It was agreed to produce a document of good practices for lemon cultivation, cutting and post-harvest management, with a view to professionalizing the processes described by trained staff.
- Given the existence of price speculation, various tentative proposals were considered for defining the price to be agreed upon, including the following: operating a single fixed price per year, convenient for both parties; standardizing prices according to season (high, medium and low); adjusting the price according to national supply and demand.
- It was agreed to initiate a technical assistance process to improve the competitiveness of producers and packers, with support from ITESM-CCM.

### **Lessons learned**

- The importance of encouraging producers to integrate in economic organizations with a commercial vision and mission.
- Design a training programme for public officials associated with agrifood chains, agribusinesses and partnerships, so that they can act as facilitators in *chain dialogue sessions*.

- Carry out the awareness-raising process in greater depth, with buyers (demand) and producers, to prepare them to participate in dialogue sessions with a spirit of cooperation and free from prejudices. The election of spokespersons or leaders of groups of producers and/or packers plays an important role in success or failure.
- Continue with the awareness-raising process among producers to help them recognize the importance of obtaining the highest possible quality in their products, improving the profitability and competitiveness of their business, and supporting the sustainability of the agricultural value chain as a whole.

**Table 11. Factors that favour and obstruct building business partnerships in the Mexican lemon chain**

STRUCTURE OF THE CHAIN	ECONOMIC STAKEHOLDERS	SETTING
<p><b>Favour</b> Farmers and industrialists recognize the importance of establishing partnerships to maintain and improve the competitiveness of the business chain.</p>	<p><b>Small-scale producer</b></p> <ul style="list-style-type: none"> <li>▪ Recognition by small-scale producers of the advantages of associating with other producers to achieve economies of scale and gain access to Government support.</li> </ul>	<p><b>Institutional</b></p> <ul style="list-style-type: none"> <li>▪ Sectoral public policy favours the development of agricultural chains.</li> <li>▪ Existence of COELIM-Colima, local institution that integrates the different links in the chain.</li> </ul>
	<p><b>Organization</b></p> <ul style="list-style-type: none"> <li>▪ Interest and willingness among producers in the Mexican lemon chain to work under associative schemes.</li> </ul>	<p><b>Market</b></p> <ul style="list-style-type: none"> <li>▪ Interest in obtaining differentiated products to satisfy market demand.</li> <li>▪ Niche markets based on product quality rather than price.</li> <li>▪ Demand for new products (organic).</li> </ul>
<p><b>Obstruct</b></p> <ul style="list-style-type: none"> <li>▪ Inefficiency in the links of the chain and lack of a value chain approach.</li> <li>▪ Individualistic attitudes and mistrust among business stakeholders – producers, packers, industrialists</li> </ul>	<p><b>Small-scale producer</b></p> <ul style="list-style-type: none"> <li>▪ Marked individualism</li> <li>▪ Mistrust</li> <li>▪ Limited management capacity.</li> <li>▪ Low levels of education and training.</li> <li>▪ Shortcomings in working capital and investment.</li> <li>▪ Lack of knowledge of programs and mechanisms for public support in training, technical assistance and financing.</li> </ul>	<ul style="list-style-type: none"> <li>▪ <b>Institutional</b></li> <li>▪ Dispersion of programs and resources. Discoordination and disorganization of public policies.</li> <li>▪ Lack of inter-institutional linkage.</li> <li>▪ Lack of clear rules for commercial transactions and market operation.</li> <li>▪ Lack of streamlined mechanisms for dispute settlement.</li> <li>▪ Inadequate and uncompetitive financial instruments.</li> </ul>
	<p><b>Organization</b></p> <ul style="list-style-type: none"> <li>▪ Low level of horizontal or vertical associativity.</li> <li>▪ Lack of motivation to promote organization.</li> <li>▪ Lack of interest in training.</li> </ul>	<p><b>Market</b></p> <ul style="list-style-type: none"> <li>▪ Existence of monopolies that distort the market.</li> <li>▪ Asymmetric and disorganized information on the market, prices, quality, technological innovation.</li> </ul>

The mango (*Mangifera indica*) originates from south east Asia, where it has been grown for over 4,000 years. Its cultivation was spread to Africa by the Arabs; later the Portuguese introduced it to Brazil; and during the colonial period it was introduced into Mexico from Cuba and Florida.

The fruit is grown in over Mexican 10 governments on the Pacific and Atlantic coasts: Campeche, Chiapas, Colima, Guerrero, Jalisco, Michoacán, Nayarit, Oaxaca, Sinaloa and Veracruz.<sup>21</sup> The leading producers are Veracruz, Oaxaca, Guerrero, Nayarit and Sinaloa, which account for over 70% of planted, harvested and production areas.

The mango chain in Chiapas was chosen for execution of the business partnerships project for the following reasons:

- The mango is a product with high potential for increasing competitiveness in the market, and it also has high potential for industrialization.
- Production volumes are too low to satisfy market requirements, whether domestic or external.
- The primary link in the chain displays differential technology access: there are as many producers with very low technical levels as high technology plantations.

## **Setting**

### **Geographical location**

The project was carried out in the mango chain in the Soconusco region or Chiapas coast, which has a warm climate with summer rainfall. The zone is located in the south-eastern part of Mexico, particularly in the municipality of Tapachula, where the planted area of mango is estimated at 16,800 ha. Of this total area of mango cultivation, the *Ataulfo* variety occupies 81%.

Mean annual temperature is 26.5°C and annual precipitation averages 2,383 mm. The main activity in the region is Ataulfo mango cultivation, although there are also large areas planted with banana, *marañón*, cacao and coffee.

Mexican mango is only available for export between February and August. Over the last five years, its share of the United Governments market has declined by 20%. In the ranking of mango-producing governments, Chiapas has the sixth largest planted area, but in 1992-2001 it recorded the largest increase in area harvested, expanding by 14% per year. In that period, it also obtained the fastest output growth (18%).

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<sup>21</sup> SAGARPA reports that cultivation has spread to 24 governments, with large areas given over to this crop.

## **Initial situation**

Average national production of mango is slightly over 1.5 million tons per year, of which roughly 2,000 tons are exported, mainly to the United States (84%), Canada (5%) and the rest to Europe, Japan and Australia.

The *Ataulfo* mango is a relatively new variety for which demand has not yet consolidated either nationally or for the export market. This variety has advantages over others, as it has better flavour, it is not fibrous (like *Haden*, *Kent* and *Atkins*), and its stone is smaller. *Ataulfo* Mango has good yields, little alternancy, an early production period (from February to April) and a high percentage of perfect flowers (about 36%); it has a yellow-coloured fruit of good flavour, without fibre, it is resistant to handling, and has a long shelf life and an average weight of 196 g to 362 g.

There are an estimated 4,000 mango producers in the government of Chiapas, cultivating an area of roughly 17,000 ha yielding 116,500 tons. At this level of production, Chiapas is the seventh ranked producer nationally and the only producer of the *Ataulfo* variety. The area devoted to *Ataulfo* mango cultivation is 11,000 ha, which produce roughly 5,000 tons and provide incomes to 2,700 producers.

The most exported varieties are *Tommy Atkins*, *Haden*, *Irvin*, *Sensation* and *Kent*; whereas the domestic market is supplied with mangoes of the *Manila* and *Criollos* variety. Recently, the *Ataulfo* variety has gained greater acceptance in the domestic market given its natural conservation characteristics, which significantly reduce losses. Acceptance of this variety has also increased in the United States market, which now accounts for around 12% of Mexico's exports to that country.

## **Economic data**

The mango value chain has potential for increased market competitiveness, value-added, and profitability for economic stakeholders in the chain. In Chiapas there is a Government Mango Council, in which producers, authorities and entrepreneurs participate. There is a significant level of coexistence between small-scale low-technology producers and larger commercial high-technology plantations.

In 1992-1997, worldwide exports of this fruit grew at an average annual rate of almost 5%. Nonetheless, the volume sold on the international market represents only about 2% of world production, which reflects the fact that the global mango trade, despite its growth, is still underdeveloped.

In 1996-2000, the world mango market grew by 50% in volume terms and by 8% in value. Nonetheless, the volume of Mexican mango exports grew by just 25% and their value declined by 18%.

The leading mango importing countries are the United States (44%) and Holland (8%), while France, the United Kingdom, Germany, Belgium and Japan jointly absorb about 20%. Per capita consumption of fresh mango in the United States increased from 600 g in 1996 to 813 g in 2001; this figure is still low, however, compared to the equivalent figures for bananas

and other fruits.

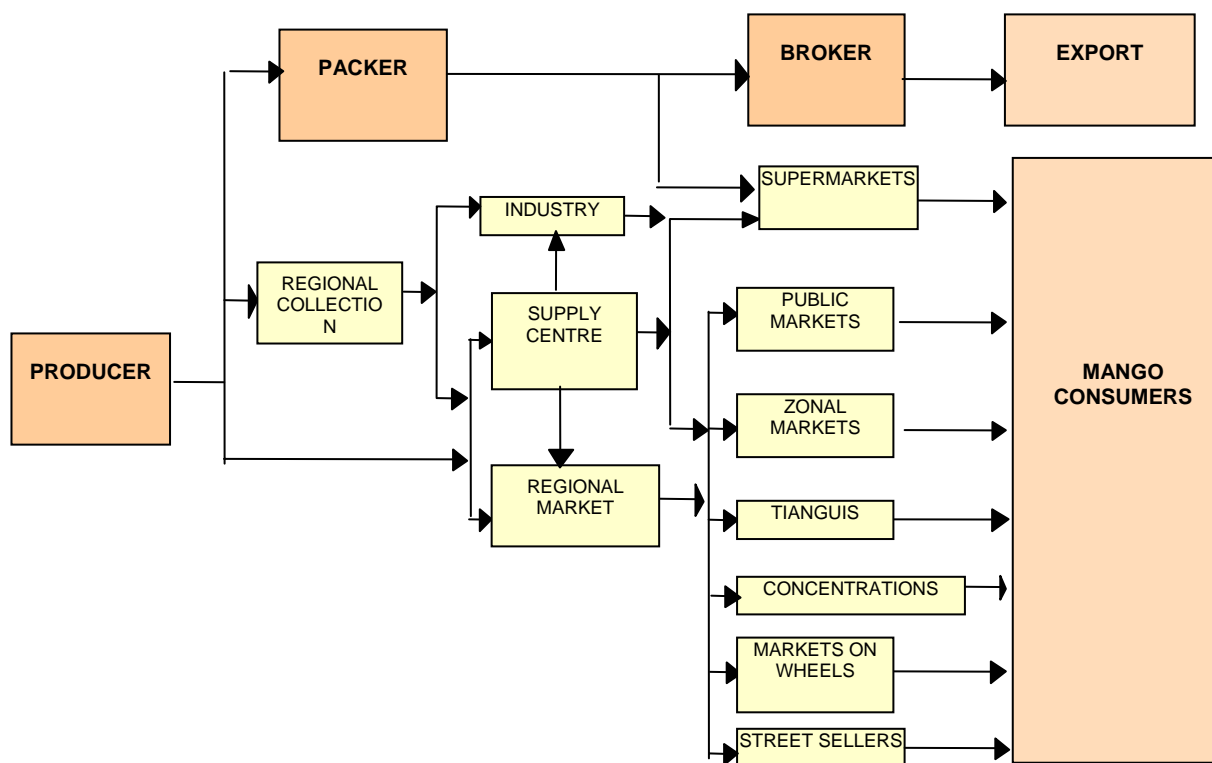
Outside the harvest season in Mexico, the main countries supplying the United Governments are Brazil, Ecuador and Peru (11%, 8% and 6.5%, respectively). Mexican mango also faces competition from producers in Central American countries (Guatemala) and the Caribbean.

**Chain structure**

**Producers**

The mango chain consists of producers, brokers or intermediaries, packers, industry and distributors. Mango is distributed by a large number of stakeholders mainly in the domestic market.

**Figure 9. Structure of the mango chain**



The functioning of the *Ataulfo* mango chain starts with plantation and is followed by cultivation and harvesting of the orchards. The post-harvest process, whether for the domestic market or for export, starts with the harvested fruit which is deposited in plastic or wooden boxes to be transported to the packing units. In the packing units, hydrothermic treatment is applied<sup>22</sup> if required by the destination market. To export *Ataulfo* mango to the markets of United

<sup>22</sup> Hydrothermic treatment is used to control the fruit fly lava and consists of submerging the mango in water at a constant temperature of 46.1°C for 90 minutes.

Governments, Japan, New Zealand, Australia and Chile, the fruit has to undergo hydrothermic treatment.

## **Marketing**

Mango is sold both fresh and in the form of preserves, and is also used in industrial products such as creams, shampoo, flavourings, etc.

The fruit is sold through three channels:

1. The producer sells his crop to the regional intermediary who markets the product in the country's main regional and local markets. The dealer mostly offers immediate payment, but at a low price; nonetheless, this is the main marketing channel.
2. Warehouse operators at supply centres purchase the fruit locally in large volumes. They also pay immediately and at low prices.
3. Producers sell their fruit directly to packers. This is the least frequent option.

For the export market there is only one marketing channel, in which the packers play the leading role. Under this framework, producers sell their fruit to the packer and also to marketing producers, sending their produce to the United Governments market through brokers, who deal with terminal markets which in turn deal with the retail market.

In general, the producer sells the fruit on the plantation to a dealer, intermediary or packer. The intermediary selects and classifies it according to the different qualities required by the domestic or export market. Fruit of domestic market quality is distributed by the dealer at the main sale point – supply centres and commercial chains, which then sell to the final consumer.

The main problem faced by producers in selling their fruit is that production is concentrated in the months of May to July, which generates oversupply that hinders or distorts trade, since producers try to get to the market early to obtain better prices.

### **Project activities**

In undertaking the activities, ITESM worked under a demand- and customer-satisfaction focus in each phase of the value-added process, and with an operating philosophy aimed at continuous improvement to help make the chain more competitive. For this purpose, three central project execution activities were proposed: identification workshops, training modules and workshops to arrange business opportunities.

The methodology for Developing Business Chains and the Supplier Network was used, particularly with regard to the *Chain Dialogue*, with the aim of triggering processes that in the future could be used for formal development of the *Ataulfo* mango chain.

### **Identification workshop**

The workshop entitled “Identification of problems in the mango chain”, began with a

compilation of data on the chain and an eight-hour session with chain participants, to present the aims and general overview of the work. This was followed by an awareness-raising talk on paradigms, globalization and its impact on organizations; a participatory diagnostic study of the agribusiness chain, based on identification and analysis of internal factors (strengths and weaknesses) and external factors (opportunities and threats) that affect the performance of the mango agricultural value chain.

The objectives to be achieved in the identification workshop were as follows:

- To report on the business partnerships project, and raise awareness among participants on the importance of identifying the situation prevailing in the *Ataulfo* mango chain.
- To identify the strengths, weaknesses, opportunities and threats affecting the efficiency of the chain and propose a number of possible solution alternatives.
- To lay foundations for a plan to develop the mango chain in Soconusco, Chiapas.

### **Training workshop**

In this second phase of project execution, training was divided into two modules. The first aimed to describe the operation of mango chains, while the second sought to develop business management skills, with group work in the classroom, in line with project objectives and the strategic guidelines set by the chain improvement plan proposed by Tecnológico de Monterrey.

The following objectives were established for the training activities:

- Acquire a modern business culture through knowledge of the mango chain operational process – technical visits to the links in the business chain.
- Learn the methodology for developing a business chain, for mango in particular.
- Learn about the supplier evaluation system and apply *business chain dialogue* sessions.
- Learn about the business management process and participate in agribusiness negotiation dynamics.

### **Coordination workshop**

The workshop was organized with support from officials from the Chiapas Government Management of the Shared Risk Trust Fund (FIRCO). Private producers, collective (*ejido*) producers, packers, industrialists, dealers, researchers and federal and government civil servants were invited to participate.

The event was held in the city of Tapachula, located in the Soconusco region, the main *Ataulfo* mango producing zone in the government and country.

The aims of the coordination workshop were as follows:

- To understand the importance of coordinating and negotiating collectively.

- To hold a *chain dialogue* between the different links comprising the mango agricultural value chain and the consumer.

The “*Win what you can*” awareness-raising dynamic was used, with the aim of analysing the behaviour of the various groups consisting of producers and packers, and the consequences of having or having not respected pre-established agreements for the negotiation. The dynamic showed how hard it is to reach agreement such all parties gain, because negotiations are mostly aimed at win-lose situations, instead of seeking formulas to ensure everyone gains.

## **Outcomes and lessons learned**

### **Identification workshop**

The results of the identification workshop were as follows:

- A total of 26 people attended, of which 27% were producers and production associations; 15% were suppliers, packers and industrialists; 12% were research centres; 46% were government and financial institutions.
- The components of a mango chain improvement plan were presented, based on three strategic guidelines: training for chain participants, technological modernization, and industrialization of the chain.
- The importance of market demand was stressed in identifying the requirements to be implemented in each link of the chain – producers, packing units, industrialists or traders – to be in a position to satisfy the final consumer.
- Participants identified the strengths and weaknesses (internal analysis) and the opportunities and threats (external analysis) of the mango chain.

### **Training workshop**

A total of 32 people participated in the training workshop: 20 producers, three representatives of packing units and industrialists, two researchers from INIFAB and seven from public institutions.

The following results were achieved:

- Producers had an opportunity to interact with other important chain actors, which enabled them to exchange views on the difficulties, problems, and potentials of mango cultivation.
- Participants were shown the functioning of the different links in the mango chain, which enabled them to understand how the linkages from production to packing to industry operate.



- Work was done under the *Chain Dialogue* concept, which proved an innovative way to identify problems and bottlenecks in the chain.
- The methodology enabled producers to target their actions on the basis of identified market demand, and to better understand the problems and opportunities in each link.

### **Coordination workshop**

A total of 31 people participated: 18 producers, two packers and industrialists, one dealer from Central de Abastos de México (Mexico Supply Centre), two researchers and eight public institutions.

The results achieved in the coordination workshop were as follows:

- During the *Chain Dialogue* session, discrepancies arose between the leading producer and packer and the buyer, relating to quality and other mango characteristics (colour, size, ripeness, weight, etc).
- These differences generated an adverse environment for dialogue, inhibiting the chance of reaching agreements with the buyer, although progress was made in defining the ideal characteristics the product should have to be competitive in the market.
- A climate of confrontation was generated because of a failure to undertake an adequate prior awareness-raising process; the workshop's aims were not communicated clearly; inability to create a cordial environment; and, lastly, chain stakeholders did not have the same information regarding cultivation, the fruit and the market.

### **Lessons learned**

- Continue to raise producers' awareness of the importance of obtaining the highest possible quality in their products to improve profitability and business competitiveness, and to support the sustainability of the chain as a whole.
- Design a training programme for civil servants on agrifood chains, agribusinesses and partnerships, to enable them to act as facilitators in chain dialogue sessions.
- Implement a more in-depth awareness-raising process with buyers (demand), to prepare them to participate in dialogue sessions in a spirit of cooperation and free from prejudice.
- The experience gained in Mexico confirmed that a fundamental aspect of the ITESM methodology is the role played by facilitators, who require solid preparation on issues of competitiveness and value chains, thorough knowledge of the methodology, and shared practical knowledge on agricultural and rural development issues, to have the capacity to adapt to the specific conditions of the agrifood chains in which they work. Otherwise, the activity can generate an adverse environment that hinders dialogue between producers.



**Table 12. Factors that favour building business partnerships in the mango chain.**

STRUCTURE OF THE CHAIN	ECONOMIC STAKEHOLDERS	SETTING
<ul style="list-style-type: none"> <li>▪ Producers and industrialists are starting to recognize the importance of embarking on processes of vertical integration to maintain or improve the competitiveness of the chain.</li> <li>▪ Infrastructure and technology for the propagation of species.</li> </ul>	<p><b>Small-scale producer</b></p> <ul style="list-style-type: none"> <li>▪ Experience with the crop</li> <li>▪ Fruit fly-free orchards.</li> </ul>	<p><b>Institutional</b></p> <ul style="list-style-type: none"> <li>▪ Sectoral public policies favourable to the development of agricultural chains and agribusiness.</li> <li>▪ The Government Mango Council is proposing the integration of the different links in the chain.</li> </ul>
	<p><b>Organization</b></p> <ul style="list-style-type: none"> <li>▪ Willingness of mango producers to work in associative schemes.</li> </ul>	<p><b>Market</b></p> <ul style="list-style-type: none"> <li>▪ Niche markets based on product quality rather than price.</li> <li>▪ Certificate of origin.</li> <li>▪ Free-trade agreements with the United Governments and the European Union.</li> </ul>

**Table 13. Factors that obstruct building business partnerships in the mango chain.**

STRUCTURE OF THE CHAIN	ECONOMIC STAKEHOLDERS	SETTING
<ul style="list-style-type: none"> <li>▪ Lack of articulation of the business chain.</li> <li>▪ Attitude of mistrust among business stakeholders – producers, packers industrialists</li> <li>▪ Inefficiency of all links in the chain.</li> </ul>	<p><b>Small-scale producer</b></p> <ul style="list-style-type: none"> <li>▪ Markedly individualistic.</li> <li>▪ Mistrust and scepticism.</li> <li>▪ Low levels of education and training.</li> <li>▪ Limited access to goods and services</li> <li>▪ Limitations in working capital and investment.</li> </ul>	<p><b>Institutional</b></p> <ul style="list-style-type: none"> <li>▪ Dispersion of programs and resources. Discoordination between public institutions.</li> <li>▪ Lack of interagency linkage.</li> <li>▪ Lack of clear rules for commercial transactions and market operation.</li> <li>▪ Legislative process and distant from market conditions.</li> </ul>
	<p><b>Organization</b></p> <ul style="list-style-type: none"> <li>▪ Differences and disputes between producer organizations.</li> <li>▪ Lack of a business culture and a strategic business and vision</li> <li>▪ Lack of knowledge of the federal, government and trade association legal framework.</li> </ul>	<p><b>Market</b></p> <ul style="list-style-type: none"> <li>▪ High level of intermediary activity.</li> <li>▪ Asymmetric and disorganized information on the market, prices, quality, technological innovation.</li> <li>▪ Lack of certification to differentiate product and add value.</li> </ul>

In Brazil the project was implemented in two chains and two different regions: castor beans in the northern region and milk in the South. Castor beans were selected by the Ministry of Agriculture of Brazil (MAPA), as a traditional crop adapted to a semi-arid climate, with high demand for labour and impact on income generation. Lastly, since Brazil depends on the consumption of diesel oil, castor beans were proposed as a challenge in the search for alternative energy sources.

The second chain selected was milk production in the south of Brazil. This is one of the main products of family farming in the region, where dairy activity is the main source of family income for 70% of producers. Family farming is the main source of work in the Brazilian rural area. Using just 30% of the total area available, it accounts for 76.9% of the employed population: i.e. of 17.3 million people employed in agriculture, 13.7 million work in family farming. This chain was chosen because of the need to find mechanisms to forge links between stakeholders in the chain, which has been characterized by informality and great uncertainty both among producers and in industry.

The castor bean (*Ricinus communis L.*) is a plant of the Euphorbiaceae family, with good prospects as an alternative crop and as a source of noble oils; it is also an energy source (biodiesel) with major potential in rural areas in the northeast of Brazil. The castor bean is a rustic plant, adapted to Brazilian land, tolerant of dry soil and high temperatures.

## **Setting**

### **Geographical location**

The project was implemented in the government of Ceará in north-eastern Brazil, which has a tropical and semiarid climate with low rainfall concentrated in a few months of the year.

The total population living in that sector amounts to 47 million, of whom 36.3% (17 million) work in agricultural activities. The governments of north-eastern Brazil are: Maranhao, Piauí, Ceará, Rio Grande Norte, Paraíba, Sergipe, Pernambuco, Alagoas and Bahia.

The north-eastern region has one of the highest illiteracy rates in Brazil, a problem that is compounded by minimal basic infrastructure.

The largest producer of castor beans in Brazil is the government of Bahia, followed by São Paulo and Minas Gerais; the highest productivity levels have been obtained specifically in the governments of São Paulo and Paraná.

### **Initial situation**

Brazil was the world's largest producer of castor beans in 1969-1971 and 1977-1981. Since then, however, production has declined steeply as a result of sharp fluctuations in production volumes, and major variations in prices and demand on the international market.

Factors that may explain fluctuations in the volume of production of castor beans include: disorganized and inadequate production system; use of unsuitable seeds; a disorganized domestic market; low price paid to producers; problems with the supply of credit and technical assistance; lack of crop rotation practices.

The Ministry of Agriculture of Brazil (MAPA) chose this agricultural value chain, seeing the project as well-timed for the initial process in the government program for castor beans, to facilitate interaction between the leading actors of the chain, and to provide training for the main actors responsible for promoting intersectoral linkages between producers, the public sector, entrepreneurs and civil society.

### **Economic data**

In Brazil, 46.4% of the rural population lives in the north-eastern region, an area comprising 7,460,235 households. Of the total number of rural households in the region, just 18% have potable water, 9.5% have a septic tank, 45.3% have a bathroom, and 13% have refuse collection.

In terms of education, 28% of the rural population over 10 years of age is illiterate.

These low indicators of the population's quality of life, accompanied by lack of infrastructure and access to basic services, have been among the main causes of migration to urban zones within the same municipalities (FAO/DESER, 2002).

### **Project stakeholders**

The castor beans project involved both regional and local government entities and institutes and rural research and extension centres (EMBRAPA). It also aroused interest in PETROBRAS to participate in the project, as well as among private investors and associations of small-scale family producers.

The profile of rural producers in the north-eastern Brazil reflects the region's agricultural structure, in which rural properties are small. Families are numerous, with very low education levels; illiteracy rates are the highest in Brazil. Many regions lack minimal basic infrastructure. This situation of vulnerability was considered when classifying the region as a priority for coordination of the Zero Hunger Program.

### **Chain structure**

#### **Suppliers**

The castor bean production chain and its main stakeholders are shown schematically in the following figure, with the producer in the centre of the business process linked to service providers; and suppliers of inputs, resources and credit located below. It also shows intermediaries and distribution networks reaching the final market.

#### **Processing**

At the present time, castor beans are not processed in the government of Ceará; nonetheless, there is underused installed infrastructure in the cotton industry which could possibly be adapted to extract castor oil.

Apart from castor oil, the extraction process also produces a number of saleable products, such as castor bean cake which is used as an organic fertilizer.

#### **Marketing**

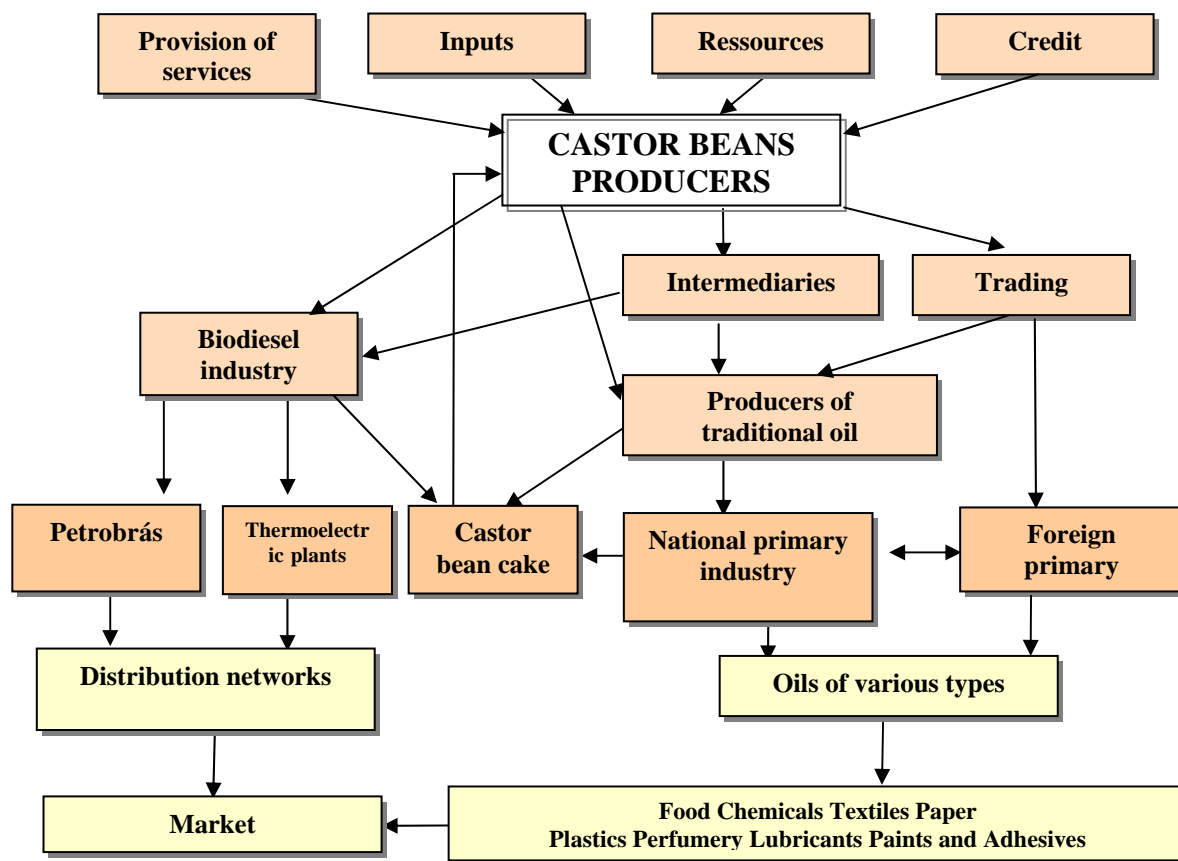
Castor beans are sold directly by producers or through intermediaries. The initial industrial process is undertaken by oilseed extracting firms. Castor oil is used as raw material for a large number of applications in the following industries: textiles and paper; plastics and rubbers; perfumery; biomedicine; chemicals.

The production of oil to be turned into a fuel of plant origin is a modality used in several parts of the world for diesel engines. The main international players in production and trade in castor beans are India and China. The main exporters are India, Paraguay and Pakistan. The leading importer is Germany, followed by Thailand, Japan and Brazil itself.

Apart from castor oil, the extraction process also produces a number of saleable products, such

as castor bean cake which is used as an organic fertilizer.

**Figure 10. Structure of the castor bean chain**



Source: Final report of the National Consultant for Brazil for the castor beans chain.

### **Project activities**

The activities of the business partnerships project in the castor bean value chain were implemented by the AGROPOLOS Institute of Ceará, supervised by the Plant Health Inspection Department and supported by FAO. The Getulio Vargas Foundation Assistance assisted in preparing work materials and designing the workshop dynamics.

The key project activities consisted of three workshops: identification, training and business coordination. During the three project stages 211 people participated, along with some 35 producers and 32 authorities representing government institutions, NGOs, federations, unions, research institutions, universities, financial stakeholders and private enterprises.

### **Identification workshop**

The project was adapted to programmes operating in the government of Ceará, to facilitate its

acceptance by the Government authorities and implementation within local policies. Invitations to this workshop were sent to direct stakeholders, members of the different links in the castor bean chain, and indirect and external actors interested in the castor bean business.

The workshop's main objectives were:

- to characterize the actors comprising the various links of the castor bean chain in the Government of Ceará.
- to initiate a process to construct a programme for the castor bean chain in Ceará, by establishing business partnerships between the different links.
- to integrate castor bean cultivation into local and regional business systems, developing family farming and agribusiness.
- to create a space for discussion and reflection, with aim of identifying the factors favouring and impeding the functioning of the business chain.

### **Training workshop**

The key aims of the training were to promote the structuring of the castor bean chain in the Government of Ceará, provide better management and negotiation capacities, both for producers and for public- and private-sector technicians, and also to disseminate the role of each of the links in the chain.

The training workshop lasted five days in all and consisted of two modules: a three-day module to raise the organizational level of the producers; and another, lasting two days, aimed at improving producers' management and negotiation capacities.

Training activities aimed to:

- make technical visits to each of the links in the business chain, to learn about their operations.
- present technologies useful for improving production and productivity in castor bean cultivation, and alternatives for making the crop economically sustainable.
- develop business negotiation and management capacities.
- facilitate exchange between the different producers.

### **Coordination workshop**

The methodology used was based on technical talks and workgroups, and was aimed at discussing the development of the castor bean chain. The workshop was attended by some 97 people, representative of all links in the business chain: farmers, federal, provincial and municipal public authorities, organization of cooperatives, input suppliers, universities, research centres, financial institutions, processing industries, unions and the fuel industry (PETROBRAS).



## **Outcomes and lessons learned**

The main results obtained in each of the identification, training and coordination workshops were as follows:

### **Identification workshop**

Participants in the identification workshop (87 people from the public and private sectors) discussed issues of importance for the chain in relation to: cooperatives, industry, family farming, credit, technical assistance, research, intermediaries, market, distribution and logistics, among others.

Work proposals were presented on each of these topics to focus the structuring of the chain, and a thematic list of problems and solutions was prepared.

Depending on the analysis of each of the issues, the final proposal was formulated and validated as the main input for subsequent workshops.

### **Training workshop**

The training workshops (attended by about 27 people) made a comprehensive study of the chain, illustrating the problems and solutions contributed in the identification workshop. Tours enabled the various participants to obtain a general and contextualized overview of the other links in the chain and to identify the main problems and opportunities.

Training in management and negotiation made it possible to identify the following as critical factors in the negotiation process: organization, union-cooperation, coordination, access to information, clarity of goals, establishing limits, structured strategy with precise objectives (market, price, risks and benefits) and the negotiating environment.

The workshop provided training to a team of technicians from the public sector (Ceará Government Agriculture Secretariat) and the private sector (AGROPOLOS), with the aim of promoting the creation of agribusinesses and business partnerships.

### **Coordination workshop**

Attended by 97 people, the coordination workshop of the castor bean chain in Brazil resulted in the creation of the Castor Bean Management Committee and six workgroups focusing on: agricultural production, industry, research and technological development, financing and promotion, coordination of policies and legislation, and the market.

The government entities and financial institutions present gave direct support to the chain. The Federal Government announced a R\$200,000 training programme in technical assistance and rural extension for technicians, to facilitate technology transfer from MBRAPA to local producers in the castor bean chain and financial institutions, such as Banco do Brasil and Banco do Nordeste, which showed interest in the proposal for financing castor bean cultivation in the region.

## **Lessons learned**

- All efforts relating to castor bean production should be channelled for coordination within the main chain actors to attain the desired goals.
- The project document guidelines should be adjusted to ensure adequate application in the selected chains, complete linkage in each of the project stages and, consequently, better coordination and decision making.
- Given that the regions have cultural and social differences, each chain should be adapted and adjustment should be made to allow for effective implementation of the project.
- Promote prior awareness-raising meetings to overcome lack of knowledge on the project. This will facilitate the future activities, and will also make it possible to take advantage of participation by direct and indirect actors in the training seminar.
- A political decision by national and government authorities to develop the castor bean value chain is fundamental. The business vision of AGROPOLOS facilitated the process.

**Table 14. Factors that favour building business partnerships in the castor beans chain.**

STRUCTURE OF THE CHAIN	ECONOMIC STAKEHOLDERS	SETTING
<p><b>Favour</b></p> <ul style="list-style-type: none"> <li>▪ Priority business chain for the Government of Ceará.</li> <li>▪ Existence of a programme to promote the production of vegetable oils for the production of biodiesel.</li> </ul>	<p><b>Small-scale producer</b></p> <ul style="list-style-type: none"> <li>▪ Willingness of small-scale producers to reactivate castor bean cultivation.</li> <li>▪ Willingness of producers to interact with other stakeholders of the chain.</li> </ul>	<p><b>Institutional</b></p> <ul style="list-style-type: none"> <li>▪ Commitment shown by authorities at the federal, government and municipal levels.</li> <li>▪ Private institutions capable of working with small-scale producers in an innovative way to structure agricultural chains, alliances and agribusiness – AGROPOLOS.</li> <li>▪ Willingness of Banco del Nordeste to work with castor bean cultivation.</li> </ul>
	<p><b>Organization</b></p> <ul style="list-style-type: none"> <li>▪ Willingness to collaborate to promote organization and association.</li> </ul>	<p><b>Market</b></p> <ul style="list-style-type: none"> <li>▪ Analysis of the functioning of the market</li> <li>▪ PETROBRAS is interested in purchasing biodiesel made from castor oil.</li> </ul>

**Table 15. Factors that obstruct building business partnerships in the castor beans chain.**

STRUCTURE OF THE CHAIN	ECONOMIC STAKEHOLDERS	SETTING
<p><b>Obstruct</b></p> <ul style="list-style-type: none"> <li>▪ Lack of a value chain approach.</li> <li>▪ Inadequate business infrastructure.</li> <li>▪ Lack of financing sources to articulate the chain.</li> </ul>	<p><b>Small-scale producer</b></p> <ul style="list-style-type: none"> <li>▪ Limited management capacity.</li> <li>▪ Low levels of education and training.</li> <li>▪ Ignorance of technological innovations.</li> </ul>	<p><b>Institutional</b></p> <ul style="list-style-type: none"> <li>▪ Dispersion of programs and resources.</li> <li>▪ Discoordination of actions.</li> <li>▪ Lack of legal mechanisms for dispute settlement.</li> <li>▪ Discoordinated public policies.</li> <li>▪ Lack of training of agribusiness technicians.</li> </ul>
	<p><b>Organization</b></p> <ul style="list-style-type: none"> <li>▪ Lack of organization among small-scale producers.</li> <li>▪ Association leaders without economic or market rationale.</li> </ul>	<p><b>Market</b></p> <ul style="list-style-type: none"> <li>▪ Monopsonistic and oligopsonistic forms in the functioning of the castor bean market.</li> </ul>

The market for dairy products in Brazil operates in two broad modalities, formal and informal, the only difference being the presence or absence of a health record. The Brazilian authorities acknowledge that the informal market is growing faster than the formal market. This makes the situation complicated in the context of family ownership, since dairy farming is the basis for the income of small-scale rural properties and the product is sold through informal markets.

The high flexibility in adapting to different production processes and the variety of income sources made family farming a fundamental element in the modernization of agriculture in Brazil, particularly in agribusiness chains such as milk. The large labour force also makes the milk producing sector a socially desirable, economically viable and politically correct alternative for avoiding many of the urban social problems that stem from rural unemployment and uncontrolled migration from the countryside to the city (PRONAF).<sup>23</sup>

### **Setting**

#### **Geographical location**

The milk chain project was implemented in the Governments of Santa Catarina, Paraná and Rio Grande do Sul in southern Brazil, where milk production is the predominant activity in small-scale family farming.

In those regions, the business partnerships project is perfectly suited to the concerns of organized producers seeking an outlet for their products, possibilities of adding value and ways of thinking and negotiating with buyer groups.

#### **Initial situation**

The fact that Brazil is the sixth largest milk producer in the world (4.3% of production) makes the milk chain important on a macroeconomic scale. Nonetheless, family farming in the regions studied serves the domestic market. Small-scale producers working in the chain have a strong tradition of associativity and form groups mainly through labour union organizations, for which reason it was decided to choose the Family Farm Workers Federation of the Southern Region (FETRAF-SUL) to execute the project.

The Brazilian milk sector has undergone significant transformations since 1991, in terms of the following factors:

- Liberation of prices previously administered by the Government.
- Economic openness. Stability of the economy.

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<sup>23</sup> The National Programme to Strengthen Family Farming supports rural development and the strengthening of family farming. Its general aim is to increase agricultural production, generate business employment, and improve and the quality of life among family farmers.

- Perception of a reduction in the real price of the product as a result of trade openness, mainly for MERCOSUR countries.
- Strict legal regulations to control product quality.
- Quality improvement, with the incorporation of on-farm cooling techniques and bulk milk collection.
- Increased use of tetrapak containers and packaging, among others.

Problems in the milk chain are not related to production processes but to marketing and the market. Other problems stem from the seasonal nature of production. These factors make producers vulnerable, making it essential to form partnerships to enable them to face market fluctuations and open up new prospects for all chain participants.

### **Economic data**

According to the 1995/96 census, there are 4,139,369 family establishments (85.2%) in Brazil occupying an area of 107.8 million ha (30.5% of the national total). Tenant farming (*agricultura patronal*) takes place in 554,501 establishments occupying 240,000,000 ha, representing 67.9% of the total national area. In the southern region, 43.8% of the total area of the region accommodates 90.5% of rural family farm properties. Tenant farming, with just 8.7% of the number of properties, occupies 55.5% of the total area.

Family farmers in southern Brazil began to organize several decades ago. The associative tradition and the presence of Italian and German immigrants – owners with strong cultural roots – probably facilitated this organizational process. Family farming normally interacts with public and private education and extension institutions at the local, provincial and federal levels.

### **Chain structure**

#### **Suppliers**

The figure below shows a family farm production chain scheme, including its product lines and the stakeholders with which it interacts. Unions and associations, cooperatives, self-production, solidarity credit and PRONAF all participate in service provision, input supply and credit operations. In terms of production, the property functions as a single unit, with several lines of production including milk, meat, cereals, fruit and vegetables.

#### **Marketing**

In Brazil milk is sold directly to consumers in a variety of ways, as can be seen in the following scheme, where the last mechanism is quite common in the southern region. Small-scale local retail trade is very important in this link, and sometimes there is also participation by retail and distribution chains.

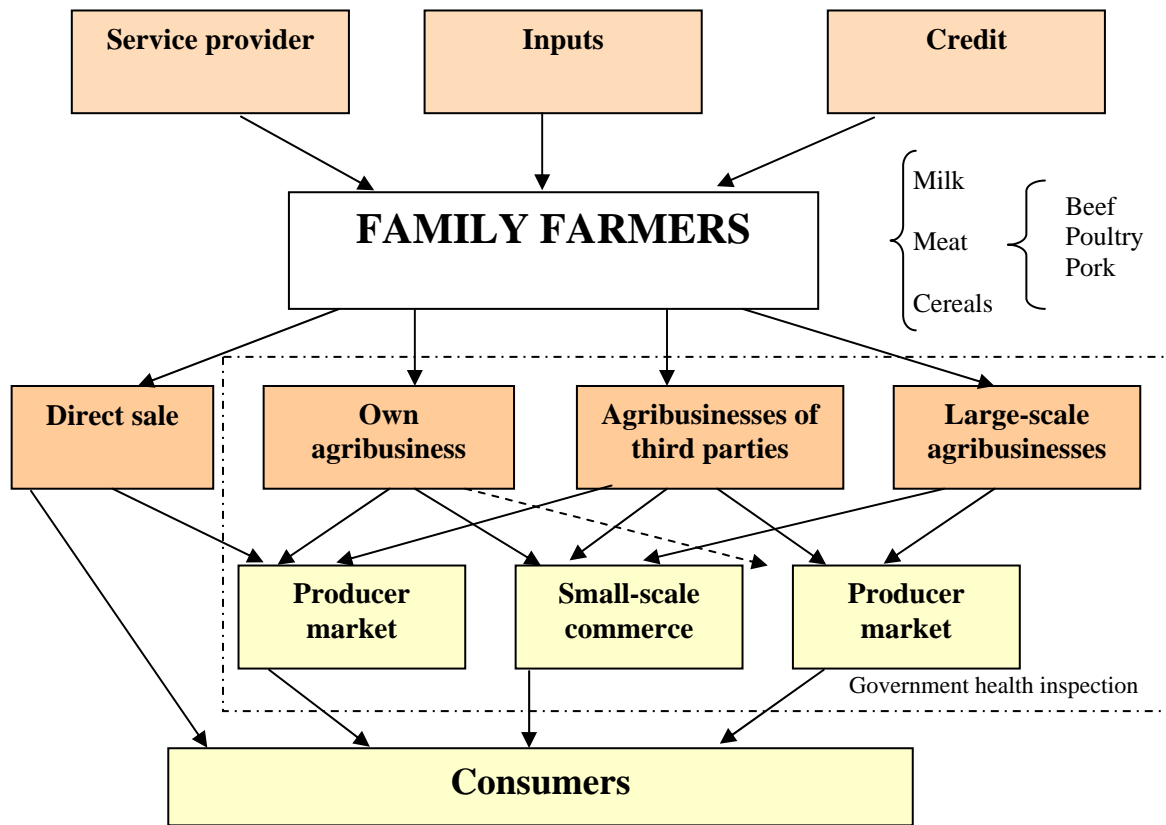
Milk is marketed in Brazil in the following ways:

- Direct sales: producer – household; producer – intermediaries

- Sales: producer – industrial cooperatives.
- Sales: producer – rural fairs.

The key issue in milk marketing is government sanitary inspection, which has hindered the growth of family agribusiness. Although producer movements and organizations have made progress and found ways to satisfy legal requirements, this area requires special attention by the public authorities in Brazil.

**Figure 11. Structure of the family farm milk chain**



Source: Final report of the National Consultant for Brazil

## **Project activities**

Project activities were implemented by the Family Farm Workers Federation (FETRAF-Sul), coordinated by the FAO technical team and supervised by the Plant Health Inspection Department, the national project counterparty designated by MAPA.

Key project activities were the identification workshops, the training modules and the coordination workshops. Prior awareness-raising meetings were held to disseminate the project's objectives.

### **Identification workshop**

Implementation of the identification workshop was divided into three major blocks: panel sessions, group work sessions and a plenary. The activities made it possible to integrate the participants. The programming of activities was shared by all those present, from the technical content through to functional and logistic aspects.

The objectives set for the workshop were to:

- initiate a process to formulate a national family farming programme focusing mainly focus on the milk business chain.
- deepen studies and proposals for the milk value chain in family farming.
- understand the milk agricultural value chain as a family farming development strategy within local/regional business systems.
- create a space for reflection, discussion and proposal on the milk value chain, with social movements, unions, governmental and non-governmental organizations, and teaching, research and extension institutions.
- put forward and debate alternatives for the milk agricultural value chain in the family farming regime.
- identify the factors that facilitate or obstruct business partnerships for the operation of the milk agricultural value chain.
- promote the establishment of business partnerships and strategies in the value chain.

### **Training workshop**

The training modules aimed to encourage the development of management capacities and knowledge of the different links in the business chain, and thereby promote business partnerships and agribusinesses among family farmers in the south of Brazil.

### **Module I. Organizational development linked to the milk business chain.**

The programme consisted of technical tours to the cities of Chapecó, Formosa do Sul, Ríó

Grande do Sul, and field visits to exchange experiences with chain participants and identify potential business and strategic partnerships. The main links in the chain and their actors were visited: producers, family food agribusiness, cooperatives, industries, university with a model business unit and rural producers market.

## **Module II. Development of management and negotiation capacities in the family farming milk chain:**

This module aimed to describe the problems and opportunities of the milk value chain, to establish partnerships based on observations made in the technical tours and the conclusions of the identification workshop.

Training was also set the following objectives:

- to provide negotiation concepts.
- to establish negotiation strategies to promote win-win partnerships in the milk chain.
- to identify conditions that ensure success in the negotiation.
- to simulate negotiation situations relating to the milk chain.
- to choose action priorities.

### **Coordination workshop**

The identification, training and coordination events were held within a fairly short time period, to avoid losing the thread of discussions and to take advantage of the enthusiasm shown by participants in carrying out the work. Before holding coordination activities, an awareness-raising meeting was held with different producers in the agricultural chain.

Unlike what happened in previous meetings, the coordination workshop was attended by individuals from other governments such as Mato Grosso do Sul, Paraná and R o Grande do Sul, because the idea was to attract as many people as possible who could contribute to the development of the chain. The workshop was attended by representatives of small-scale farmers, government authorities, unionists, cooperatives, and others.

The aims of the coordination workshop were to:

- initiate a process to construct a national family farming program, with the milk chain as its main focus.
- attempt to establish business partnerships with stakeholders from different links in the chain.



## **Outcomes and lessons learned**

### **Identification workshop**

The event was attended by 64 people from family farming, cooperatives and producer associations (16), FETRAF-Sul and labour unions (13), the public sector and parliament (19), research institutions (14), a facilitator from the Getulio Vargas Foundation, and a FAO national consultant.

The main problems identified in the family farming milk chain include the following:

- The machinery and equipment available to milk producers in Brazil are not adapted to the needs of small-scale production, and there is no rigorous control of product quality or the treatment and disposal of waste.
- The existence of problems relating to milk marketing, together with rigorous quality standards, cooling and pasteurization technologies (Standard 51),<sup>24</sup> and legal aspects such as public health, taxes, and environmental conservation.
- Milk producers have poor access to credit and a low level of financial and administrative management, which hinders their performance and the exploitation of economies of scale.

### **Training workshop**

About 30 representatives of the milk chain participated, including leaders of family farmers and representatives of cooperatives, family farming labour institutions, national and regional government authorities, NGOs and universities.

Producers were able to interact with a number of important stakeholders in the milk chain, exchange experiences and understand, from their perspective, the opportunities and threats faced by the milk sector. Technical visits also made it possible to ascertain feasible business options to develop in family farming.

Illustrations were provided of the problems of milk production in family farming, and there was an enriching exchange of experiences on business and organizational issues.

A total of 35 people participated in module II, representing government organizations, both government and federal, research and extension institutions, cooperatives, family farmers NGOs and universities. These participants are also directors and leaders of institutions in the different

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<sup>24</sup> Standard 51. REGULATORY INSTRUCTION N° 51, OF 18 SEPTEMBER 2002 Regulations on production techniques, identity, quality, collection and transport of milk. In exercise of the attributions conferred by Article 87, single paragraph, indent II, of the Constitution, and in view of the need to improve and modernize federal sanitary legislation on milk production, the Ministry of Government for Agriculture, Livestock and Supply hereby resolves:

\*Art. 1° - To approve technical standards of production, identity and quality of milk type A, milk type B, and milk type C, [pasteurized and unpasteurized milk \\*refrigerated](#), and the Technical Standard for the collection of unpasteurized [\\*refrigerated](#) milk and its bulk transport, in accordance with the annexes to this regulatory instruction.

segments of the chain. The training proposal on knowledge of the chain was validated.

A commitment was obtained from participants to establish partnerships with other links in the agricultural chains invited to the coordination workshop, where most participants were young people with good levels of schooling and strong links to rural unions in their respective regions, together with leaders of family farming youth groups.

### **Coordination workshop**

This workshop was attended by 92 people, including small-scale producers organized in cooperatives and associations, government representatives, unionists, research and development institutions, and the University of Chapecó.

As a result of the awareness-raising meeting, a R\$600,000 agreement was negotiated between FETRAF-Sul and the Federal Government to train small-scale family farm milk producers.

Representatives of Government, cooperatives and suppliers made commitments with the different links of the chain to improve relations in the milk chain and strengthen coordination of the business process and marketing.

The Santa Catarina Rural Agricultural Extension and Research Enterprise (EPAGRI) announced it would open all its training centres to small-scale milk producers and called on its technicians to prioritize research and dissemination of technology for milk production on small properties.

### **Lessons learned**

- In Brazil the identification workshops were considered important stages in the current design of the project, because they made it possible to learn about the reality of the selected producers in the regions considered, identify the main institutions in the sector, and embark upon a participatory diagnostic process that facilitated the establishment of the necessary commitments by chain stakeholders, and progress in dialogues and process.
- In practical terms, it was suggested to divide and orientate training on the basis of the type of participant: technicians and public officials on the one hand; and stakeholders of the value chain on the other. The knowledge and information needs of each of these actors were quite different, which affects the modalities and dynamics of the courses.
- Although participation in the process made it possible to bring small-scale producers and industrialists closer together, this was not sufficient for business partnerships to be formed. Moreover, small-scale producers and their associations governmentd that they did not have a chance to express their opinions and interests in the agricultural chains, which impeded information flow and decision-taking.

**Table 16. Factors that favour and obstruct building business partnerships in the milk**

**chain.**

STRUCTURE OF THE CHAIN	ECONOMIC STAKEHOLDERS	SETTING
<p><b>Favour</b> Business chain structured with a vision of an integrated system of family production.</p>	<p><b>Small-scale producer</b></p> <ul style="list-style-type: none"> <li>▪ Family farming vision</li> <li>▪ Strong attachment to family farming</li> <li>▪ Management and negotiation capacities.</li> </ul>	<p><b>Institutional</b></p> <ul style="list-style-type: none"> <li>▪ Commitment shown by authorities at the federal, government and municipal levels, to develop the milk chain</li> <li>▪ Institutional framework – unions, associations – of family farming working in innovative fashion with small-scale family producers.</li> </ul>
	<p><b>Organization</b></p> <ul style="list-style-type: none"> <li>▪ Cooperatives, unions and associations.</li> <li>▪ Management and negotiation capacity.</li> <li>▪ Possibility of effectively reaching small-scale family producers.</li> </ul>	<p><b>Market</b></p> <ul style="list-style-type: none"> <li>▪ New market niche (organic and fair trade).</li> <li>▪ Market with regional cooperatives.</li> </ul>
<p><b>Obstruct</b> Lack of clarity in the concepts of agricultural chains and business partnerships.</p>	<p><b>Small-scale producer</b></p> <ul style="list-style-type: none"> <li>▪ Migration of young people to the cities.</li> <li>▪ Politicization.</li> </ul>	<p><b>Institutional</b></p> <ul style="list-style-type: none"> <li>▪ Regulatory framework (51) that restricts family milk production.</li> <li>▪ Disorganized public policies.</li> <li>▪ Politicization of leaders.</li> </ul>
	<p><b>Organization</b></p> <ul style="list-style-type: none"> <li>▪ High levels of politicization.</li> <li>▪ Not all producers are organized.</li> <li>▪ Limited market vision.</li> </ul>	<p><b>Market</b></p> <ul style="list-style-type: none"> <li>▪ Existence of monopsonistic and oligopsonistic forms in the functioning of the milk market.</li> <li>▪ Heavy reliance on large firms.</li> <li>▪ Disorganized market information</li> </ul>

Two regional activities were held to evaluate the results obtained: a regional workshop of the FAO work team – national consultants, senior consultants and technical officers – and an electronic conference. The activities are aimed at designing a regional strategy to promote and develop business partnerships, to achieve a dynamic exchange of experiences on the main lessons learned in project execution.

### **Regional workshop**

The workshop entitled “Design of a strategy for promoting business partnerships” was held at the FAO Regional Office in Santiago, Chile in December 2003. The event was attended by national consultants from Brazil, Chile, Mexico and Peru, the regional coordinator of the project and senior FAO technical officers.

The main aim of the workshop was to exchange experiences on the processes undertaken in the different countries in executing the technical cooperation project. This was divided into four modules with the following contents:

- Evaluation of the identification and coordination workshops, training seminars and lessons learned from the process.
- Strategy to promote and develop business partnerships proposed by each country
- Institutional programmes and instruments to support the promotion and development of business partnerships.
- Proposals from the expansion of the project by each country.

The following results were obtained from the regional exercise:

- Lessons learned and problems arising from the heterogeneity of the agrifood chain studied were analysed.
- The methodologies and materials used were evaluated and adjustments were proposed.
- The methodological process proposed by FAO to promote the development of business partnerships was validated.
- An initial strategy proposal to promote business partnerships was prepared for consideration in a regional electronic conference.
- It was proposed that the strategy include an awareness-raising component on the benefits of business partnerships, and a component for monitoring and evaluation of the impact of the process.
- Constraints and obstacles identified in the construction of business partnerships were systemized. Favourable conditions for the development of agribusinesses in each country were noted.

- The support programs and instruments existing in each country for the development of agrifood chains and business partnerships, and for the promotion of agribusinesses, were described.
- Lastly, techniques were identified linking existing sectoral policies and programmes, making it possible to create conditions for a possible expansion project.

### **Electronic conference**

The second extended activity to evaluate the project was a regional and electronic conference held between 14 and 28 January 2004. The event's central purpose was to evaluate the development of the project in Brazil, Chile, Mexico and Peru, with the aim of modifying and/or fine tuning the methodology proposed by FAO (<http://www.rlc.fao.org/foro/alianza/conclu.pdf>).

A total of 335 people were invited to the conference, of whom 142 registered. These included representatives of government institutions, development organizations, national counterparties from Brazil, Chile, Mexico and Peru; technical officers from public and private institutions, experts in business partnerships and agribusinesses, and members of the FAO Advisory Group on Business Partnerships. A total of 42 people participated actively in the event with 113 interventions.

To give continuity to the process and facilitate its development, the conference used the same methodology as the regional workshop, divided into four modules:

- Exchange of experiences in holding identification and coordination workshops, and training seminars.
- Proposals for designing a strategy to promote and develop business partnerships.
- Exchange of knowledge and experiences on institutional programmes and instruments in each country and at the regional level, to support the promotion and development of business partnerships and agribusinesses.
- Proposal for the expansion of the project by each country.

The discussion was moderated by specialists in business partnerships, national consultants from the four countries, the regional coordinator and the technical team from the Regional Office. To facilitate the discussions, participants were provided with basic and supporting documents, and questions were formulated to guide and promote debate and enrich the comments observations made by participants.

The development of the discussions had thematic areas that were cross-cutting in the four modules, such as the conceptual discussion, project premises, type of chain selected, methodologies used, territorial development, pre-existence of an associative/organizational culture among participating producers, among others. This without doubt substantially influenced the orientation of the debates. A large part of the discussion focused on an analysis of criteria to be adopted in selecting the chain, particularly the level of organization.

The most significant results included the following:

- A dynamic exchange of points of view on the scope of the project.
- Specify and enrich the concept of business partnerships.
- Share experiences accumulated in each of the countries.
- Disseminate lessons learned during project execution.
- Enrich the proposed strategy for promoting and developing business partnerships.
- Deepen discussion on project expansion.

## IV. STRATEGY FOR PROMOTING BUSINESS PARTNERSHIPS





## Proposed strategy for promoting business partnerships

The strategy aims to facilitate intersectoral cooperation and coordination between local producers and public and private institutions that have the resources and tools needed in a given region. It also aims to promote better integration of small-scale farmers with agrifood chains – processing firms, exporters, marketing enterprises – with a view to improving their market access and the incomes of rural families, and to help strengthen public and private institutions linked to policies and programmes on agrifood chains, competitiveness and the promotion of agribusinesses.

The pillars of this strategy aim, on the basis of the project experience, to provide elements to create an enabling environment for the development of business partnerships: e.g. tools or instruments aimed at improving the competitiveness of agrifood chains and the stakeholders comprising them, in particular involving organized small-scale producers in the region.

### **First component: To develop trust within the chain**

To deepen and improve project activities as participatory spaces for meetings between producers and other sectors. They also make it possible to ascertain the agrifood chains' problems needs and opportunities, while contributing to the growth of trust within the chains, for the development of business partnerships.

Raising awareness among the various producers makes it possible to act on uncertainty and help achieve better results in the coordination of business workshops.

#### Activities:

- Identification workshops.
- Awareness-raising workshops.
- Coordination workshops and chain dialogue.

### **Second component: Capacity building**

The training component should be developed fundamentally in three areas: agrifood chains and competitiveness agreements; management and negotiation; economic aspects linked to the chains. It should also include a communication for development component – adapting methodologies to the educational level of the farmers.

#### Activities:

##### Agri-food chains and competitiveness agreements

- Information on domestic and international markets.
- Business planning, good agricultural practices and food quality and safety issues.

- Comprehensive knowledge of the chain – technical visits.
- Exchange of experiences.

#### Management and negotiation

- Business management tools.
- Negotiation capacities.
- Agrifood chain management.

#### Economic aspects linked to agrifood chains.

- Economic advantages of business partnerships – value added, transaction costs, economies of scale, etc.
- Design of contracts, agreements and negotiation tools.
- Alternative forms of financing.
- Organizational and associative models.

### **Third component: Improve information flows on product supply and demand**

This line of action requires activities to improve systems and flows of information on markets and prices, foster reciprocal trust, make negotiations more transparent and reduce asymmetric information among chain stakeholders, particularly by defining the contents of their commercial relationship.

#### Activities

- Establish diagnostic studies of the chains as support tools for the formulation of business plans.
- Promote product differentiation.
- Analyse the institutional supply of support programmes and services.
- Implement a system of market intelligence for the chain – price, quality, volume, trade agreements, segmentation, etc. – to protect the long-term sustainability of the system.

### **Fourth component: Develop institutional, legal and economical framework**

An aspect that is sensitive to the development of business partnerships is the availability of an institutional framework, such as arbitration systems for dispute settlement, contractual relations, institutional environment and economic setting.

Arbitration systems: The existence of a trust relationship between economic stakeholders should allow friendly means of settling trade disputes to emerge, backed by an effective and efficient legal system, or else through ad hoc tribunals, mediation by sectoral chambers, etc. Organizations may also act as intermediaries in dispute settlement, as unions do in Brazil. Arbitration or mediation modalities could fill a necessary space. Public institutions would have to assume this role transparently and fairly for the parties, not only in terms of regulations but also as guarantors of their enforcement.

Contractual relations: A strategy aimed at improving contractual relations should include an analysis of the cost of “formalization” for producers who are culturally used to informal relationships – a decisive factor in the profitability of their activities. To avoid the appearance of unequal situations and/or conflict between the parties, steps should be taken to systemize pre-established contractual schemes, draw up standard contracts, and train and inform small-scale producers to prevent clauses being applied that are damaging to the contracting parties.

Institutional setting: Intersectoral consensus mechanisms are important, whether national, regional or local, to facilitate horizontal and vertical linkage to strengthen the agrifood chains.

Economic setting: There are three components to be considered, which could be addressed through studies complementary to this strategy: credit and alternative forms of financing; territorial development based on agribusiness clusters as a development alternative, their functioning – scale – and relation with factors such as technological innovation, development of competencies and skills and service infrastructure; and the social responsibility of firms, as a way of improving trust and transparency between chain stakeholders.

### Activities

- Creation of consensus-based arbitration and mediation mechanisms.
- Support for contractual schemes, which could include a study on formalization costs.
- Research about transaction costs.
- Strengthening of local development mechanisms and tools.

### **Fifth component: Develop producer organizations**

The possibility of gaining market access is motivation to create horizontal linkages. Organization, whether formal or informal, emerges spontaneously when individual producers understand they cannot compete alone and need to associate with their peers to improve negotiating capacity and market engagement. This process occurs when there is a certain maturity in the producers’ business culture – something that cannot be created from outside but is motivated through initiatives that facilitate communication, trust and cohesion among producers.

It is essential to consider the role of leadership in guiding the necessary cultural change and

initiating strategies based on the business partnerships approach. There are many associative forms that directly or indirectly develop economic activities. Two types can be highlighted: traditional mercantile (quoted corporation, limited liability company, etc.) and cooperative schemes that depend on the needs and culture of the producers.

#### Activities

- Validation of organizational schemes among small-scale producers for economic purposes.
- Analysis of information on the main associative forms and comparative analysis.
- Training in the management of organizational schemes and organizational strengthening.

#### **Sixth component: Analysis, monitoring and evaluation of the strategy**

The strategy as designed should be assessed regularly, to make sure it effectively fulfils the purpose of improving the competitiveness of the agrifood chain, in particular that of small-scale producers, by developing business partnerships.

Instrumentation of the project in the different countries shows that the process can be made sustainable if it is linked to a local and/or national public-private institutional scheme and is integrated into existing sectoral policies

#### Activities:

- Implement an impact monitoring and evaluation system.
- Periodic evaluation of results achieved and adjustments.

A strategy for business partnerships that include small-scale producers will be more successful in so far as it has public and private programs and instruments to support it.

One of the first lessons learned in project implementation was the important role played by the rural public and/or private institutional framework at all levels, for the development of agribusinesses.<sup>25</sup> The existence of an institutional framework in which producers participate with the private and public sectors is an important step in guaranteeing development and strengthening economic activity. This situation clearly produces a catalyzing effect for greater organization of producers and encourages the search for markets for their products.

Another of the lessons learned in the field was the ability to establish that, despite the heterogeneity<sup>26</sup> of the eight chains in which the project was executed, a common element is that the small-scale producer does not have the supply of products needed to engage in the marketing chain; and, of course, lacks reaction capacity to adapt rapidly to the requirements of a changing and demanding market. This situation was similar in all the chains studied, i.e. both in the well-structured mango, Mexican lemon or avocado chains, and in the lentil, milk, beef, artichoke and castor bean chains.

In terms of the characteristics or profile of producers that could benefit from business partnerships, the lessons of the project show that producer organizations designed for economic purposes obtain greater benefit than producers organized with other aims, such as territorial, political, cultural. It was also possible to confirm during the project that good results are likely to be achieved with informally organized producer groups, but with a market vision.

The project experience showed us the importance of considering the social, cultural and ethnic specifics of small-scale producers, particularly their economic rationales (based on traditions and customs), which do not always coincide with the rationales of the organizations or institutions with which they interact. An example of this is the market rationale of lentil producers in the Peruvian highlands, who prefer to sell their produce over the course of the year rather than all at once; or the family milk producers in the southern Brazil who produce and sell their produce with rationales based on cultural traditions.

The results of the project have made possible to validate the FAO methodological proposal, i.e. the sequential process of activities – identification, training and coordination workshops – as a process aimed at facilitating interaction and intersectoral cooperation between the various producers and their public and private setting.

Joint participation by stakeholders of the chain, despite their different educational and cultural levels, is an innovative proposal allowing for interaction among all persons interested in pursuing

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<sup>25</sup> The agricultural business is defined not only in relation to what happens within farm boundaries, but also by all the interconnected processes that enable the supply of agricultural products to reach consumers (Zylbersztajn, 1994).

<sup>26</sup> Heterogeneity in terms of the characteristics of production, structuring of the chain, comparative importance of the chain, levels of producer organization, local and regional development, and the type of linkage between the different links of the chain.

common paths. Rural producers were listened to and they expressed their opinions throughout all project activities. Participants were also given the chance to participate in the analysis of the problems and solutions in the chains studied, unlike traditional agricultural schemes.

One of the activities that caused most impact among participants was the module of technical visits to the different activities of the chain. This helped to form a common perception of the problems, possibilities for engagement in the business process, and to add more value to the agrifood chain. Better knowledge of the way the chain is structured can be a positive element in establishing partnerships based on mutual trust between stakeholders, since these can only result from understanding and access to the same information, not only on the market but also on the structure of costs and profit margins throughout the business process.

Project execution also taught that one of the most important constraints on the establishment of business partnerships stems from the attitude of economic stakeholders: not only the individualism of producers, packers or agro industries, but also the lack of trust and a spirit of coordination among stakeholders, which hinders the establishment of partnerships.

Another factor is the absence of a strategic vision. Generally speaking, the business vision of producers is short-term, unlike the long-term view of agro industries. Packers are in an intermediate position given their relative mobility for entering or exiting the market. Dealers nearly always have a short-term business opportunity view, due to fluctuations in demand arising from changes in tastes and preferences among final consumers.

Without any doubt, one of the most important contributions made by the business partnerships project has been methodological, since the methodology developed can be applied both to organized or independent producer groups – with a business vision – and to technicians and officials from the public and private sectors. The advantage of this process is that it can be easily replicated, and its simplicity and flexibility mean it can be adjusted and adapted to a wide variety of realities in the regions, agrifood chains or target public with which it is decided to work.

This flexibility favoured the development of methodologies for each of the project's key activities (identification/training/coordination), and also made it possible to incorporate new activities (e.g. awareness-raising meetings), as happened in Chile, Brazil and Peru.

To ensure the success of the project it is important to have commitment from local, public and private authorities. In this regard, it is essential to involve local institutions from the outset, both in defining the local stakeholders to be invited, and in deciding on the activities to be undertaken. Insufficient initial coordination will be hard to overcome once the work is underway. The project team has a key role to play in this regard. Aspects such as the choice of agrifood chains, regions and participants – in particular small-scale producers – are also critical.

Field visits to crop-growing or livestock-breeding farms, packing units, industries and distribution centres – supermarkets – and also research centres at universities, made it possible to broaden the held by participants of the chain as a whole, highlighting the importance of sharing experiences and information for comprehensive improvement of the business process.

The dynamics of the activities demonstrated the benefits of teamwork and having a business vision, while also providing signals on the importance of quality, certification, good agricultural practices and business management of farms. Throughout the process, care needs to be taken over the expectations generated among participants, to avoid false expectations and/or overestimation of the methodology outcomes.

In Chile, the establishment of business roundtables was an important instrument for collaboration in actions and the establishment of agribusinesses. Agrifood chains can be aligned on the basis of demand from the final consumer. In the case of the meat chain, the methodological proposal was seen to play an articulating, facilitating and catalyzing role in the process.

In Brazil, the institutions with which the key project activities worked played a fundamental role. Firstly, given its firm commitment to family farming in the south of the country, FETRAF-Sul clearly facilitated understanding of the project among the cooperative movement in the region and made it possible to focus on the sector's problems in coordination with proposals from regional leading organizations. Secondly, in the Government of Ceará, political decision by the national and government authorities was essential for development of the castor bean chain and the business vision of AGROPOLOS, which facilitated the process.

In the case of Mexico, the Suppliers Evaluation System showed the importance of establishing a customer-supplier dialogue to define quality requirements based on a demand approach i.e. the

final consumer. The chain dialogue is an effective tool for re-establishing links between the segments of a chain, and improves the chances of success, since it emphasizes the technical characteristics of products as a basic element in establishing the business and reference points for price setting.

In Peru, the project sent out strong signals regarding the organization of small-scale producers. In this case, a topic underlying all discussions of evaluation was the profile of producers and the characteristics of their organization to be able to effectively connect to the business chain and make their business processes more competitive. In cases where the organizational level of the producers is relatively low or producers are independent, it would be possible to explore a support strategy to develop their business capacities; and subsequently, at the initiative of the organizations themselves, seek modalities for linkage and association with other producers or stakeholders to improve their capacity for negotiation or facing the market.

The project can be said to have fulfilled several objectives:

- It made it possible to align the supply of products from small-scale farms and the demand for them.
- It articulated public and private institutional supply
- It provided spaces for dialogue and coordination with all stakeholders of a chain and the public-private sectors that work in promoting agrifood chains, competitiveness and agribusinesses.

In all activities there was a surprising lack of knowledge of the role of business partnerships as tools to improve the competitiveness of the agrifood chain. There also appeared to be considerable difficulty in visualizing the value chain as a system and business partnerships as processes that are instrumental in improving the value chain process. This aspect drew the attention not only of small-scale producers, but also public-sector officials and technicians, who in many cases were resistant to abandoning a traditional view of agriculture. This leads us to conclude that awareness-raising work is fundamental throughout the process.

Based on the discussions of agrifood chains and business partnerships, there is not yet a shared view that these generate mutual benefits to all participants since their main virtue is to add value to products. Moreover, partnerships are an important contribution to creating a new institutional architecture that would address the coordination and information failures that arise in highly dynamic and competitive markets.

Two factors contributed to the success of the project: firstly, the fact that FAO is an international organization of high credibility and prestige, given its technical capacity, neutrality and concern for business equity; secondly, participation of universities in Chile, Mexico and Peru, which provided an institutional framework guaranteeing neutrality and independence of interests. This also allowed intensive methodological thinking at the different stages of the process.



A number of recommendations are made below which might be useful in motivating the development of business partnerships in the region:

- Maintain the (improved) logical sequence of the different project stages, always seeking active participation from the different stakeholders in the chains (particularly organized small-scale producers and technicians from the public and private sectors) and involvement of universities, research and innovation centres, and NGOs/CSOs.
- Choose the institutions and producers with which to work in an agrifood chain, in the light of their technical and business capacity and their proximity to small-scale producers. This factor is a key for the success of work targeted on small-scale farming.
- Involve public national, regional and local authorities from the outset, together with private enterprise with economic capacity to guarantee effective mobilization of resources to the zones where the work will take place.
- It is fundamental to maintain dialogue and permanent discussion with public and private institutions and with producers from the chain, to guarantee the success of the process and its continuity through time.
- Pay attention to all producers and entrepreneurs that show interest in business partnerships, to incorporate them into the process.
- Seek to disseminate the activities of business partnerships through the communications media and within the institutions (both public and private) that work with an agrifood chain, competitiveness and agribusiness approach.
- Consider creating a support network of local firms that provide training, technical assistance, harvesting services, universities, centres of research and intelligence on national and international markets, among others.
- Enterprise social responsibility is an important element to consider within a local, regional or territorial development approach.
- Create a regional database containing technical information from the sector, institutional supply, business opportunities, and a market place of suppliers and demanders for the crop and livestock sector. This activity was envisaged in the project framework, but for budget and time reasons it could not be carried out, although a platform design and sufficient information is available on each of the agrifood chains with which work took place.
- An important aspect to consider is the time relation between project activities and the business activities of agrifood chains in the regions where the work takes place. In particular, it is advisable to adapt project execution to the agricultural calendar, so as to make the most of the coordination activity with the possibility of real business

negotiations.

- To expand the project it is recommendable to identify the advantages of each specific chain in advance, as well as the competitive advantages of the region or micro-region in which it is located, such as: geographic location, climate, infrastructure (industry, highways, services), agglomeration (population, firms, consumers), technology production centres, financial institutions, commercial incentives, economic organization of small-scale producers, technological research centres, etc. It is also recommended to consider economic, social, political and cultural factors that could serve as catalysts for regional or local development.

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ADEX	Asociación de Exportadores [Exporters Association]
ADRA	Agencia Adventista para el Desarrollo y Recursos Asistenciales [Adventist Agency for Development and Assistance Resources]
ANTAD	Asociación Nacional de Tiendas de Autoservicio y Departamentales [National Association of Self-Service and Department Stores]
APHOVAM	Asociación de Productores de Hortalizas del Valle del Mantaro [Mantaro Valley Vegetable Producers Association]
ATPDEA	Ley de Preferencias Arancelarias Andinas [Andean Trade Preference and Drug Eradication Act]
CEDEPAS	Centro Ecuménico de Promoción y Acción Social [Ecumenical Centre for Social Advancement and Action]
CESEN	Centro de Servicios Empresariales [Business Services Centre]
CETREX	Centro de Enseñanza y Entrenamiento de Extensión [Education and Extension Training Centre]
CNC	Consejo Nacional de la Competitividad [National Mexican lemon Council]
COELIM-Colima	Consejo Estatal del Limón Mexicano [Government Mexican lemon Council]
CONALIM	Consejo Nacional del Limón Mexicano [National Mexican Lemon Council]
COSUDE	Cooperación Suiza [Swiss Cooperation]
DFPV	Departamento de Fomento e Fiscalização de Ficalização Vegetal [Plant Inspection and Development Department]
DGDA	Dirección General de Desarrollo Agrario [General Agricultural Development Department]
DGIA	Dirección General de Información Agraria [Agricultural Information Department]
DGPA	Dirección General del Promoción Agraria [Agricultural Promotion Department]
EMATERCE	Empresa de Asistencia Técnica y Extensión Rural del Estado de Cear
EMBRAPA	Empresa Brasileira de Pesquisa Agropecuária [Technical Assistance and Rural Extension Enterprise of the Government of Ceará]
EPAGRI	Empresa de Investigación Agropecuaria y Extensión Rural de Santa Catarina [Santa Catarina Agricultural Research and Rural Extension Enterprise]
FAO	United Nations Food and Agriculture Organization
FDA	Fundación de Desarrollo Agrario [Agricultural Development Foundation]
FETRAF	Federación de Trabajadores de la Agricultura Familiar [Family Farm Workers Federation]
FIRA	Fideicomisos Instituidos en Relación con la Agricultura [Agricultural Trust Funds]
FIRCO	Fideicomiso de Riesgo Compartido [Shared Risk Trust Fund]
FONAES	Fondo Nacional de Apoyo para las Empresas en Solidaridad [National



INCAGRO	Fund to Support Solidarity Enterprises] Innovación y Competitividad del Agro Peruano [Innovation and Competitiveness of Peruvian Agriculture]
INDAP	Instituto de Desarrollo Agropecuario [Agricultural Development Institute]
INIA	Instituto Nacional de Investigación Agraria [National Agricultural Research Institute]
INIFAP	Instituto Nacional de Investigaciones Forestales, Agrícolas y Pecuarias [National Institute for Forestry, Agricultural and Livestock Research]
ITESM CCM	Instituto Tecnológico de Estudios Superiores de Monterrey, Campus Ciudad de México [Monterrey Technological Institute of Advanced Studies, Mexico City campus]
MAPA	Ministerio da Agricultura, Pecuaria e Abastecimento [Ministry of Agriculture, Livestock and Supply]
MENA	Mesa de Negociación Agraria [Agricultural Negotiation Roundtable]
MERCOSUR	Mercado Común del Sur [Southern Common market]
MINAG	Ministerio de Agricultura [Ministry of Agriculture]
NGO	Non-governmental organization
NUPELTD	Núcleo de Pesquisa em Logística, Transportes e Desenvolvimento [Logistics, Transport and Development Research Nucleus]
OGANA	Organización Ganadera de Aysén [Aysén Livestock Organization]
PARA	Programa de Alivio y Reducción de la Pobreza [Poverty Relief and Reduction Programme]
PARA USAID	Proyecto Alivio y Reducción de la Pobreza [Poverty Relief and Reduction Project]
PETROBRAS	Petróleo Brasileiro S.A.
PRONAF	Programa Nacional de Fortalecimiento de la Agricultura Familiar [National Programme for the Strengthening of Family Farming]
PRONAMACHS	Programa Nacional de Manejo de Cuencas Hidrográficas y Conservación de Suelos [National River Basin and Soil Conservation Management Programme]
PYMAGROS	Proyecto Productos y mercados para el Agro de Sierra [Highland Agriculture Products and Markets Project]
SAG	Servicio Agrícola Ganadero [Crop and Livestock Service]
SAGARPA	Secretaría de Agricultura, Ganadería, Desarrollo Rural, Pesca y Alimentación [Agriculture, Livestock, Rural Development, Fishing and Food Secretariat]
SARC	Secretaria de Apoio Rural e Cooperativismo [Rural Support and Cooperativism Secretariat]
SEAGRI	Secretaría de Agricultura del Estado de Ceará [Ceará Government Agriculture Secretariat]
SENASA	Servicio Nacional de Sanidad Agraria [National Agricultural Health Service]
SEREMI	Secretario Regional Ministerial [Regional Ministerial Secretariat]
SPR	Sociedades de Producción Rural [Rural Production Companies]

SWOT	Strengths, Weaknesses, Opportunities and Threats (Analysis)
TECBIO	Centro de Investigaciones Bioenergéticas [Bioenergy Research Centre]
UFC	Universidade Federal de Ceará [Federal University of Ceará ]
USDA	United Governments Department of Agriculture