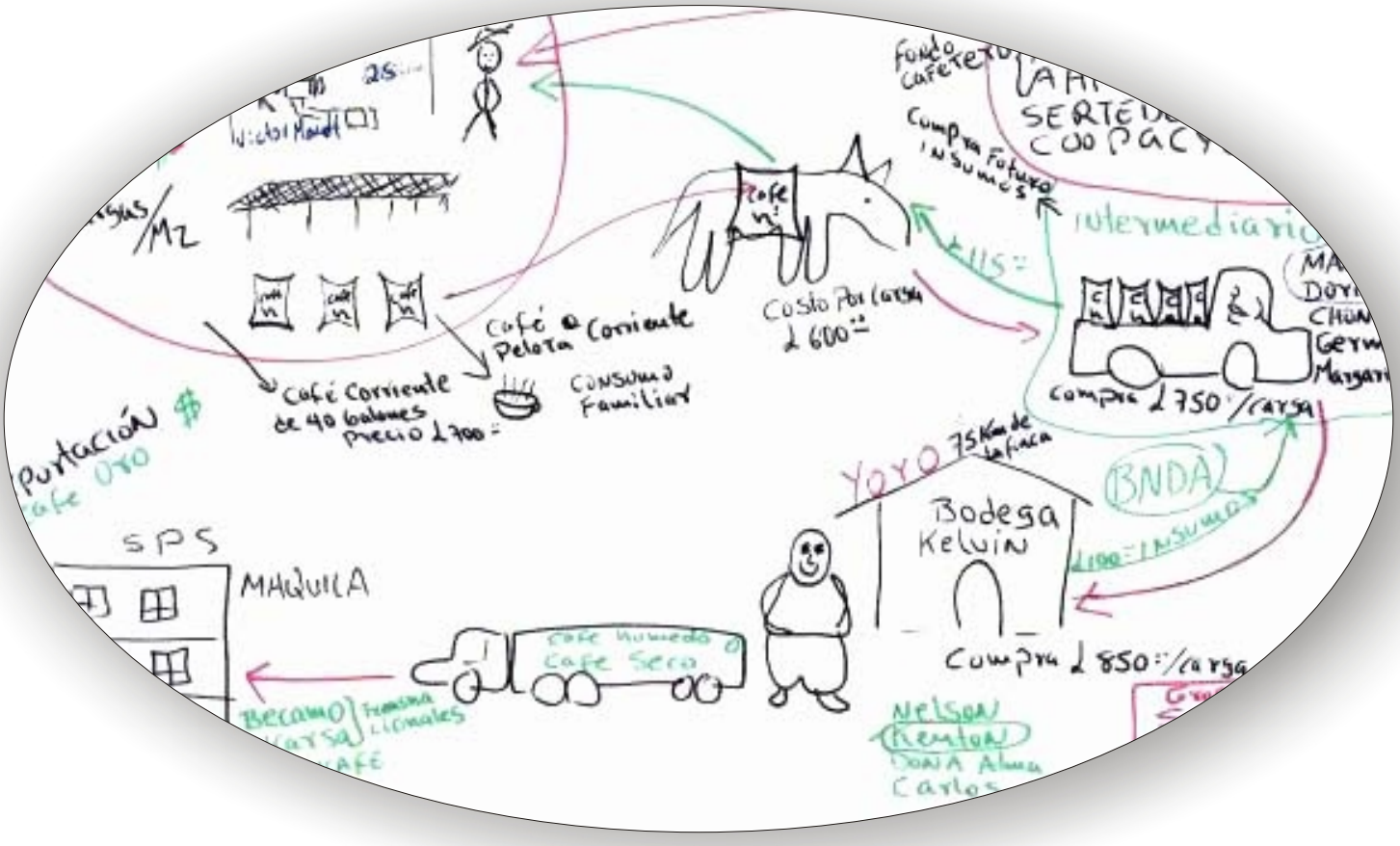
Design of Strategies to Increase the Competitiveness of Smallholder Chains

Field Manual



Mark Lundy, María Verónica Gottret, William Cifuentes, Carlos Felipe Ostertag, Rupert Best

Rural Agro-enterprise Development Project

CIAT

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Centro Internacional de Agricultura Tropical
International Center for Tropical Agriculture

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The text you have in your hands attempts to combine the work of these pioneers so that other rural communities can apply and adapt to their own needs what has been learned, and thus contribute to improving their livelihoods.

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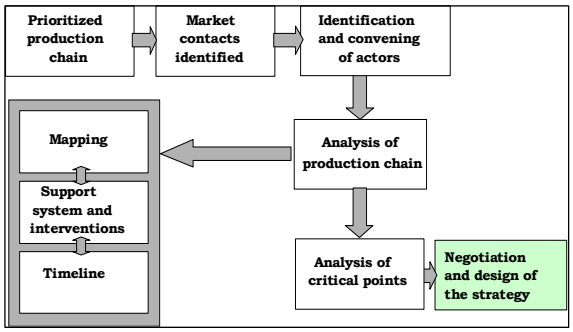
The authors,
Cali, Colombia
February 2004

Module 1

Territorial Approach for Rural Enterprise Development



Guiding questions

1. Why have rural development approaches oriented towards agricultural productivity failed to improve rural family income?
2. What are the elements of a territorial approach for rural enterprise development?
3. Who are the local actors that participate in this approach, and why is the forming of a local group for inter-institutional work important for facilitating processes of rural enterprise development?

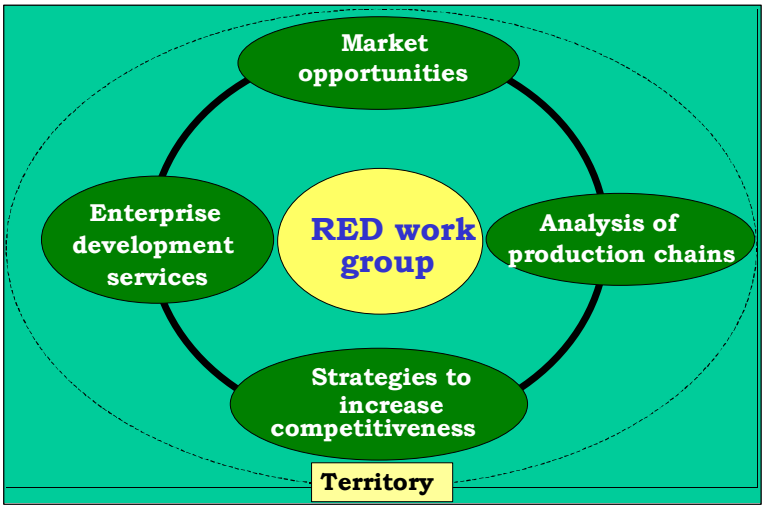
Introduction

Nowadays a great percentage of the rural populations throughout the developing world finds itself facing a crossroads. On the one hand, traditional products are losing value in a rapidly globalizing market, and on the other hand, their natural resource base is reduced due to pressures of survival that place today's food ahead of care for tomorrow's resources. As a result, many families have abandoned the countryside in search of better options in cities and even abroad, without achieving dignified livelihoods for their members.

Confronting this reality are donor and development organizations that support rural development projects aimed at increasing incomes. However, many of these projects look at only one part of the chain , and therefore have limited effectiveness. A classic example of this approach is the project that, at great effort and expense, manages to significantly increase the productivity of small-scale producers, only to encounter a limited market for these additional product, thus leaving producers disillusioned and often with less income than before. This situation is derived from a limited understanding of markets, how chains work, and what opportunities for value adding are available for smallholders. Concepts such as these are key for better-focused rural development projects and would complement the resources and commitment to supporting rural populations expressed by these actors.

The International Center for Tropical Agriculture (CIAT, the Spanish acronym), through its Rural Agro-enterprise Development Project (RAeD) and local partners in Honduras, Nicaragua, Colombia, and Peru, has been developing methodologies that aim to respond to the needs of rural development organizations in the field of Rural Agro-enterprise Development (RAeD). At present, the Center has a territorial approach for RAeD composed of four interconnected methodological steps that seek to improve local capacities. The four elements are: (1) formation of local teams for rural agroenterprise development, (2) identification of market opportunities, (3) analysis of chains and the generation of strategies for their improvement, and (4) the design and provision of Business Development Services, BDS (Figure 1).

Figure 1. Territorial approach for Rural Agro-Enterprise Development (RAED).



Territorial approach for Rural Enterprise Development

Each of these elements includes spaces for organization and planning, and others for action. Organization and planning serves to generate, systematize, and share information and knowledge with the aim of building agreements to guide actions, and in turn increase the probabilities of their success. Table 1 shows a general timeline for the four topics.

Table 1. Planning, organization, and action: key times for rural agro-enterprise development (RAED).

Planning and organization	Intermediate product(s)	Estimated time	Processes and actions to be established
Formation of RAeD work team	– Territorial RED diagnostic – Action plan – System of monitoring, evaluation, and learning	2 to 3 months	– Consensus on what to do, and how and when to do it. – Agreement and coordination of actions among actors
Identification of market opportunities	– Rapid market study (local, regional, and/or national) – Characterization of market options – Participative selection of market options	3 to 4 months	– Establish relations with actors in the markets – Generation, analysis, and diffusion of market information
Participative analysis of chains	– A strategy to increase competitiveness designed for each prioritized chain	3 to 4 months per chain	– Implement research and development actions of the strategy to increase the chain's competitiveness and income of its actors
Identification of supply, demand, and gaps in the local business development services	– Diagnostic of supply, demand, and gaps in enterprise development services in the territory – Design of strategies to strengthen the markets for enterprise development services in the territory	3 to 4 months	– Improve rural enterprise development services existing in the territory – Establish new rural enterprise development services requested in the territory – Links with external actors that can offer the services requested in the territory

At the end of the process proposed above, the territory should have a Agro-enterprise development team composed of various organizations with capacities to (a) identify relative market opportunities for the territory and diverse populations or ecosystems; (b) analyze chains from multiple viewpoints, and propose concrete actions in research and development to increase their competitiveness; and (c) continually coordinate supply and demand for business development services, and facilitate markets for business development services. Based on these processes, local capacity will exist to promote and strengthen the processes of rural enterprise development prioritized by local actors.

Despite presenting the territorial approach as a lineal process with fixed contents and times, this is a dynamic and interactive process based on adaptations and innovations of local actors with a periodic process of evaluation according to their needs, experiences, and context. As such, this approach should be understood as an entry point for a local process rather than a finish line. Each process of rural enterprise development will be different based on the conditions of the territory where the approach is implemented, the capacities and interest of the participants, and the needs that emerge from this interface. It is therefore highly important to document and systematize the local experiences with the aim of being able to share them with others, and thus identify general rules and lessons learned that enrich and improve the approach as well as the specific methods.

This manual covers the third component of the territorial approach for RAeD: the design of strategies to increase chain competitiveness. These strategies seek to improve the competitiveness of the chain by means of concrete research and development actions identified and implemented in collaboration with chain actors. Through this process, trust and collaborative problem solving is facilitated so that, at the end of the process, the groundwork has been laid to move from a production chain to a value chain.

The manual is divided into 10 modules or chapters with the aim of explaining not only the reasons behind the methodology, but also concrete steps that may prove useful in the field. The modules are:

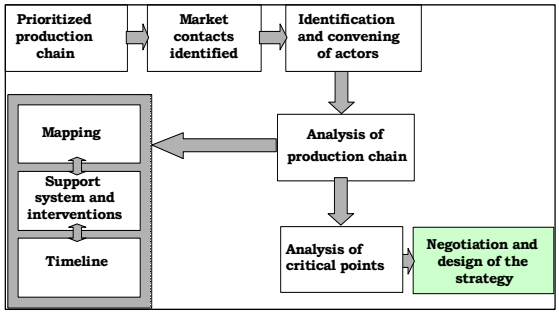
Module 1	Territorial Approach for Rural Enterprise Development
Module 2	Chain Approach: Basic Concepts
Module 3	Basic Principles of a Strategy to Increase Competitiveness
Module 4	Selecting a Chain
Module 5	Market Information and Contacts
Module 6	Identification of Actors in the Chain
Module 7	Analysis of the Chain with the Actors
Module 8	Analysis of Critical Points
Module 9	Negotiation and Design of the Strategy to Increase Competitiveness
Module 10	Monitoring the Strategies to Increase Competitiveness: General Guidelines

To facilitate better understanding and assimilation, each module is structured in the following fashion:

- **Guiding questions** that introduce the themes and ask the reader to reflect on their experience;
- **Conceptual support** relating to the themes introduced;
- **Appropriate tools** to facilitate participative processes of planning, analysis, and design of strategies to increase competitiveness with smallholders and the other enterprise actors in the chain ;

- **Practical examples** of experiences with this methodology in Latin America related with the theme of the module; and
- **A review** at the end of the module that restates the main ideas.

Module 2
Chain Approach: Basic Concepts



Guiding questions

1. What is needed to achieve effective and lasting rural poverty reduction?
2. What elements characterize the rural situation in your community?
3. What is the difference between "comparative advantage" and "competitive advantage", and how are they related with innovation?
4. What is a chain or sub-sector approach, and what are its advantages and disadvantages?
5. What other elements need to be included in a chain analysis, and why?
6. How is a strategy to increase competitiveness defined, what is it for, and how is it executed?
7. What is the difference between a chain and a value chain or value net?
8. What differences are there between the efficiency of an individual enterprise and the efficiency of a chain as a system?
9. What implications does geographic scale have for the design, financing, and execution of a strategy to increase competitiveness?

Background

Traditionally, interventions that seek to support the development of the agricultural sector have been centered on increasing production through programs of agricultural reform, credit, research, and technical assistance, among others. This type of intervention, on the whole, has resulted in an increase in the sector's productivity, measured in kilograms produced by area cultivated, thus allowing substantial improvements in the supply of basic agricultural products.

However, as a result of the law of supply and demand, these production increases have generated significant reductions in the prices paid for these products,. A clear example is the tendency that can be seen in the average price of basic "commodity" products that has been decreasing over the last 50 years. Although production increases have "reduced" the cost of foods for important segments of the urban population, they have not generated sustainable improvements in the income of producers or of rural populations, nor have they contributed to reduced levels of rural poverty.

To effectively reduce rural poverty requires moving beyond productivity, and incorporating themes such as profitability and competitiveness in our work agenda. Profitability, measured in income for area cultivated, helps us with themes such as the generation additional income through value adding, product diversification, and the development of more dynamic and complex markets. The promotion of a rural sector capable of managing and maintaining connections with growing markets is presented then as an alternative strategy of rural development.

Moreover, the world tendency towards globalization and free trade requires moving from a "productivity" to a "competitive" approach. To achieve this competitiveness, business organization, both at the level of the enterprise and its forwards and backwards links, and access to information and technology are increasingly necessary. We must move on from a strategy that utilizes comparative advantages normally based on natural resources, cheap labor, state subsidies, and lightly processed products, easily duplicated by other zones or countries, towards a strategy of competitive advantages. These types of advantages are based on consumer and market knowledge, the manufacture of more complex products, added value, business organization, and the generation of strategic alliances between actors carrying out distinct functions along the chain.

In conclusion, agrifood systems are in a phase of rapid change with moves towards greater vertical integration with the objective of guaranteed quality, continuous supply, and more competitive prices.

Rural Situation

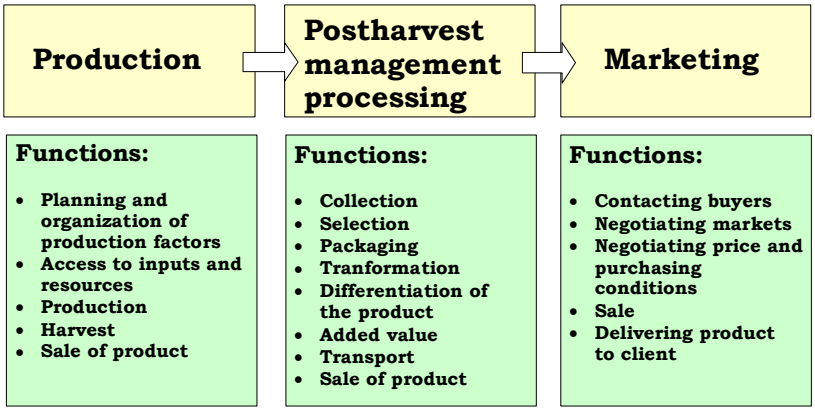
Despite this background, the situation of rural areas, while varying by country and by region, share certain basic characteristics.

1. *Focus on production or sales, but not marketing.* In rural zones, most producers are focused towards production and marketing of their products, which means to say that they know how to produce and sell their products, but not how to market them. Marketing seeks to find more competitive advantages by means of strategies such as product differentiation, market segmentation, and development of specific client niches.
2. *Disarticulation of the chain*. The different links of the chain (production, post harvest management, marketing, and business development services) are disjointed, generating a deficient flow of information along the chain which is utilized by certain market agents, while generating systematic inefficiencies along the chain.
3. *Weak and incipient managerial capacity.* Most existing rural organizations are weak in managerial terms. They have limited capacities to identify and analyze critical points in their chains, build relationships with others and therefore to find key strategies or actions to improve their business.
4. *Individualand not sectoral competitiveness.* Given the uncertainty that characterizes rural areas, it is normal to find that actors seek individual solutions in the short term instead of thinking of initiatives that promote the sector's competitiveness in the medium or long term. This translates into relations between actors along the chain characterized by low trust, self-interest and a limited capacity to assume strategic initiatives as a chain.
5. *Little or no coordination between and a partial focus of business development services.* Business development services to the agricultural sector have been characterized as being punctual and focused on a single link in the chain. Furthermore, these activities reach producers in poorly coordinated form, which results in the duplication of efforts in some areas and gaps in others. As a result, the support received by the chains in the agricultural sector is not sufficiently effective to increase its competitiveness.

Vision of the Chain

A first intent to respond to this situation was the development of the chain approach, with the purpose of visualizing the whole agrichain from the provision of inputs and the production of basic goods, to the marketing of the final product, including the stages of post harvest management and processing. Figure 2 shows the links and their functions.

Figure 2. Components of a chain.



The use of the chain approach has several advantages:

1. It permits a more complete vision of the chain and its different actors, and therefore improved information management.
2. Access to more complete information facilitates the identification of critical points impeding the chain's development, and the location of alternative solutions that are more effective and have greater impact.
3. It is an appropriate scenario for seeking alliances and synergies between the different actors because it can identify common interests, diminish transaction costs and permit more efficient use of available resources.

However, the chain approach leaves out, or at least does not explicitly identify, three aspects that are key to understanding a chain's behavior: the degree of business development of participating organizations, the provision of business development services and the context in which the chain operates.

Normally, various business organizations, both formal and informal, participate in taking the product from the farm to the final market. One of the limitations of the traditional chain approach is that it does not take a detailed look at these organizations, their structure, capacities, or the links between them. A good understanding of the degree of business organization along a chain allows the design of strategies that play to the actors' existing capacities instead of presenting proposals that are theoretically possible, but difficult to implement in practice.

Traditional chain analysis also does not take into account the organizations – both public and private – that provide business development services to the chain. As in the case of business organizations, it is important to understand the quality, coverage, and effectiveness of existing business development services to find possible ways of improving the chain's functioning and competitiveness. Understanding the relationship between business development services and the bottlenecks that limit chain development is equally important. Often it is more illustrative to

identify necessary services that do not exist or do not effectively respond to chain bottlenecks than only examining existing services.

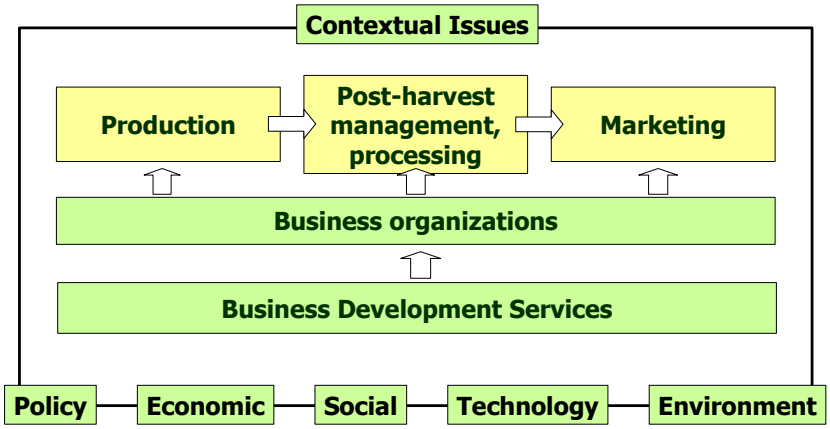
Finally, a general understanding of the context in which the chain operates is critical. Specific issues to bear in mind include local and national policies, the climate for economic development, social issues, natural resource management concerns and the existing technological conditions of the chain.

In response to these gaps, we propose a wider view of the chain that combines the initial definition, with the analysis of business organizations, the existing support system and key contextual issues.

Wider Vision of the Chain and a Strategy to Increase Competitiveness

A wider view of the chain covers not only the chain's functional aspects (production – post harvest – marketing), but also includes the existing level of business organization, the business development services connected to the sector and the context in which the chain functions. Figure 3 shows this perspective.

Figure 3. Wider perspective of a chain .



The method "Design of Strategies to Increase the Competitiveness of Smallholder Chains" intends to respond to the gaps identified in the traditional approach to chains in the following ways:

1. Experience has shown that the success or failure of any intervention for the development of chains depends principally on the actors and business organizations that participate in it and the context in which the chain exists. By explicitly focusing on understanding the actors and the relationships between them as well as with the surroundings, this method facilitates more effective interventions along the chain.
2. Through analyzing existing chain dynamics and elaborating strategies to increase competitiveness we seek to identify interventions that generate a fair distribution of the benefits, and the possibility of involving rural smallholders, their families and their communities. In many cases, this allows the design of strategies that achieve benefits for the producers with the least resources.
3. The use of the term "strategy" permits the design and implementation of various parallel or complementary projects guided by common and clear objectives.

4. Through the strategy, we aim to generate a consensus and synergies between the distinct actors and groups of interest involved in the chain, and thus facilitate the management of resources interventions focused on increasing the chain's competitiveness.

The Rural Agroenterprise Development Project of CIAT has developed the following working definitions of competitive strategies.

What is a strategy to increase competitiveness?
A strategy to increase competitiveness is a set of activities that are planned and carried out with the active participation of a chain 's diverse actors to achieve common objectives, around which one or more business organizations and/or interest groups are linked

Why a strategy to increase competitiveness?
A strategy to increase competitiveness seeks to strengthen or establish a chain that has been prioritized based on its market potential, sustainable production system, and capacity to generate income and employment for the rural population.

How is a strategy to increase competitiveness carried out?
A strategy to increase competitiveness is carried out through short-, medium-, and long-term research and development activities in production, post harvest management and processing, marketing, business organization and business development services, based on an analysis of the critical points which limit the chain 's competitiveness.

These definitions should be taken as a guide and not as the final word on strategies to increase competitiveness. In fact, each actor or local working group can have its own definition of a strategy to increase competitiveness, its objectives, and how to carry it out, based on experiences with this methodology.

General Observations on Chains

Before looking in detail at the methodology of strategies to increase competitiveness, various general considerations on chains are useful to bear in mind. The first is the relation between innovation and competitive advantages, and how these advantages may or may not be sustainable over time. The second is the difference between an existing chain and the building of a value chain as a strategy to increase competitiveness. Finally, how do managerial efficiencies in a single firm compare to building the systematic competitiveness of a chain involving various businesses in diverse activities.

Innovation and sustainable competitive advantages[1]

One of the results of a strategy to increase competitiveness is the promotion of processes of change, or innovation, in themes related to production, post harvest management, processing, marketing, business organization, and supply of business development services. These processes are diverse and can touch upon few or many of the chain's links; what they have in common is an understanding of the chain as a system and not as a collection of individual actors. Together, the innovations proposed to increase competitiveness seek to improve the chain's efficiency, and at the same time improve its competitive position in regards to other similar chains. In this sense, one of the main reasons for innovation is to compete better and thus generate and capture added value for the chain actors. Economists use the term "rents" to describe this added value.

When a business or chain innovates in such a way that its product is differentiated from the others in the market, it can collect additional value. Examples of this are the use of labels that differentiate the product (brands), or the emphasis on its form of production (organic, sustainable, socially responsible), or new presentations (new products), among others. Often these strategies are seen as ways of gaining added value for the product in the face of competition.

Over the last few years, experiences with organic production have been seeking additional rents for small-scale producers. The logic behind this strategy is that "small-scale producers have not had the necessary funds to apply chemical fertilizers or pesticides to their crops, thus they can convert to organic production quickly, and receive a premium price for their products." In this case, the innovation to increase the chain's competitiveness is the organic certification based on the economic limitations of the small-scale producers. However, as illustrated in the case of organic cacao, an organic certification will not confer long lasting benefits when many other producers count on the same "competitive advantage". Or, in economists' terms, the entry barriers facing this innovation are low and, thus, the innovation is easily replicable by others (see Box 1).

Based on this experience with organic cacao, what lessons can we learn about innovation and competitive advantages?

- If innovation is easily replicable by other producers, it tends to be quickly copied and thus loses the advantage and added gain.
- The profitable innovations, no matter how complicated, are copied sooner or later and thus the rents will begin to descend.
- This indicates that processes of market information and innovation should be continuous and require periodic inversions to maintain competitive advantages and added rents.

Finally, it is important to note that the big multinationals invest time and money not only in improving their products, but also in generating a brand that differentiates it. Perhaps in the long term, the existence of an easily identifiable brand translates into a more sustainable competitive advantage than innovations in systems of production, post harvest, and marketing. What implications might this assertion have for the processes of rural enterprise development that are being promoted nowadays?

[1] For wider discussion on this theme, consult: Kaplinsky, R. 2000. Spreading the gains from globalisation: What can be learned from value chain analysis? IDS Working Paper 110, Institute of Development Studies, Sussex, UK (http://www.ids.ac.uk/ids/bookshop/wp/wp110.pdf). Another document of interest by the same author is a guide for the analysis of global chains, available in: http://www.ids.ac.uk/ids/global/pdfs/VchNov01.pdf

In France, for example, the government invests large sums of money in promoting certification of origin for agricultural products. These certificates seek to link the product with its locale and manner of production in such a way that it is easily distinguishable from products of similar characteristics produced by industrial firms. The French Government's Institute of Denomination of Origin expects eventually to achieve coverage of 20% of French products sold. Currently, France sells US$18 thousand million products with a certificate of denomination of origin.[2]

Production chains versus value chains[3]

Often the terms production chain and value chain are used interchangeably, but in fact the two have some important differences. In its simplest definition, a production chain is the description of all participants in an economic activity that relate to take inputs to a final product and deliver it to the final consumers. Conversely, a value chain is understood as a vertical alliance or strategic network between a number of independent business organizations within a production chain. According to Hobbs et al. (2000) [3], a value chain is differentiated from a production chain because:

- Participants in the value chain have a long-term strategic vision.
- Participants recognize their interdependence and are disposed to work together to define common object, share risks and benefits, and make the relation work.
- It is oriented by demand and not by supply, and thus responds to consumer needs.
- Participants have a shared commitment to control product quality and consistency.
- Participants have a high level of confidence in one another that allows greater security in business and facilitates the development of common goals and objectives

Table 2 presents other comparisons between a production chain and a value chain.

Table 2. Enterprise relations: Production chain versus value chain.

Factors	Production chain	Value chain
Information flow	Little or none	Extensive
Principal focus	Cost / price	Value / quality
Strategy	Basic product (commodity)	Differentiated product
Orientation	Led by supply	Led by demand
Organizational structure	Independent actors	Interdependent actors
Philosophy	Competitiveness of the enterprise	Competitiveness of the chain

Source: Hobbs et al. (2000).[3]

The present guide seeks to understand the production chain and facilitate sufficient negotiations between participants to lay the groundwork for the formation of a value chain. It is important to underline that the resulting value chain will have a smaller group of the participants than the production chain as a whole. Not all participants are interested or willing to enter into a value chain arrangement given that this step requires negotiation, information exchange, risks, and changes in the relations along the chain.

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2 Becker, Elizabeth. 2003. Western farmers fear third-world challenge to subsidies. New York Times, September 8. (http://www.nyt.com).

3 For more information consult: Hobbs, J; Cooney, A; Fulton, M. 2000. Value chains in the agrifood sector: What are they? How do they work? Are they for me? Department of Agricultural Economics, University of Saskatchewan, Canada. This publication is available in: http://www.usask.ca/agriculture/agec/publications/value chains.pdf

With a value chain, complex strategies of product differentiation and innovation are easier to achieve, and thus contribute to building sustainable competitive advantages over time. Box 2 gives an example of a value chain in a rural community.

Box 2
Example of a value chain: "Las Brisas," Santa Cruz de Turrialba

When the cheese factory, *Las Brisas*, began activities over 10 years ago, it functioned like all the other plants in the cheese-making cluster of Santa Cruz de Turrialba in Costa Rica, that is, with unstable relations with suppliers and buyers. But as the sector evolved and became more competitive, *Las Brisas* began to seek strategies to move from being just one more player in the production chain to constituting a true value chain.

This search led to the establishment trust-based relationships with both suppliers and buyers. On the milk production side, for example, *La Brisas* facilitated the entry of its biggest milk provider as a new partner in the business, and thus guaranteed 70% of its daily consumption.

On the commercial side, it pursued two related paths. First, it developed contacts with one of its clients – a biscuit factory – to produce a special cheese for manufacturing biscuits. The two businesses jointly obtained support from the University of Costa Rica for specific research on the best type of cheese for the biscuits; and *Las Brisas* entered a new market, in which no competition existed while assisting the biscuit factory to expand production and sales. Second, *Las Brisas* consolidated relations with an important chain of supermarkets in San José, the country's capital, through the application of a methodical quality control for its own brand, participation in joint promotion and marketing strategies, and the development and testing of new products.

What are the results has *Las Brisas* obtained from its value chainstrategy? First, the quality of its product is one of the best in the zone and, therefore, has high acceptance in the market. Second, it is the only business of the cheese cluster in Santa Cruz that sells consistently directly to supermarkets in San José. In 2001, a promotion of cream was so successful that it contracted additional production with other plants of Santa Cruz, but under its supervision and brand. Third, it suffers less than other businesses during times of milk shortage. In summary, constituting a value chain has given *Las Brisas* some important competitive advantages over other similar plants.

Source: Personal interviews, November 2002.

Systemic efficiency versus business efficiency

A third theme that it is important to bear in mind while elaborating strategies to increase competitiveness is the difference between efficiency measured in terms of an individual enterprise versus the efficiency of a chain as such. There are many examples of chains comprised of one or more highly efficient enterprises, but linked in an inefficient fashion. In these cases, the firms' gains in production or post harvest management efficiency could well be lost through inefficient marketing channels. Given that most agro-enterprise activities are not carried out by a single enterprise, but by various interrelated economic actors, achieving a competitive productive chain requires a systemic focus. This focus requires establishing trust-based relations along the chain, and in turn challenges us to move beyond the conflictive relations that reign in most chains. Under this focus, there are no good or bad actors, but rather a system that seeks to be the most efficient possible in benefit to its participants.

Strategies to Increase Competitiveness and Diverse Scales of Intervention

The methodology has been designed to be flexible in its application and useful at diverse scales of work. This section seeks to present, briefly, some of the implications in terms of capacities, resources, and methodologies for this approach depending on the scale of analysis. The term "scale" refers to the geographic coverage in which the chain works. The present manual works with three scales (microregional, regional, and national) that can be defined as:

- **Microregional scale**: Refers to a local scale that can range from a village to a municipality. This scale is useful when seeking to work closely with processes of community development and community management of natural resources.
- **Regional scale:** Includes more than a municipality and can reach as far as a department or a province. This scale is useful for working with more geographically dispersed agro-enterprise chains, or those with more complex interaction, such as clusters or local agrifood systems.
- **National scale:** Focuses on one single chain at the national level and presents advantages when the objective of the exercise is to formulate policies or plans in medium or long term to promote national competitiveness in a given product.

Some of the factors that could be affected, depending on the scale chosen, are:

- **Representation and participation**: What are the considerations for guaranteeing active participation and adequate representation of all actors and interests involved in the chain?
- **Definition of necessities**: How do we assure that we hear the needs of all actors in the chain? This point requires special care with the chain's weaker actors whose ideas tend not to be taken into account.
- **Differentiated strategies**: How do we guarantee that the final strategy includes differentiated solutions according to the needs of the diverse actors? The agro-enterprise chains include heterogeneous actors, and thus demands differentiated solutions according to their needs instead of "one size fits all" strategy.
- **Methodologies:** How do we choose an adequate basket of methodologies for the scale at which we wish to work? What functions well at a microregional scale is probably less effective at national scale, and vice versa. This consideration has to do with participation, level of detail and information, and costs.
- **Level of detail**: What is the key information that we have to collect and analyze? Collecting additional information, however interesting it may be, implies more analysis and additional costs.
- **Costs:** What can we achieve with the available budget? The definition of some viable objectives with the available resources is important and can have important implications for the scale at which we work.
- **Capacity to convene:** Whom should we convene for work at the scale we propose? Do we have the capacity to bring these actors together?
- **Management, negotiation and implementation capacity**: What implications does the chosen scale have in terms of management and implementation of the resources, and negotiation with important decision makers? How strong will our negotiating position be in relation with key decision makers in the chain?
- **Potential impact**: What is the potential impact of actions at the chosen scale in terms of number of beneficiaries, economic development, natural resource management, social and gender equity, impact on class relations, or others?

Table 3 summarizes some of the considerations of scale in relation to the themes previously defined.

Table 3. Some considerations on scales

Theme	Scale		
	Microregional	**Regional**	**National**
Representation and participation	Facilitates direct participation of actors through from each interest group.	Need to select representatives from each group with the capacity to clearly represent the interests of all.	As for regional, but the actors selected need to have good convening capacity and credibility within the group.
Needs differentiation	This can be done by income, access to market, gender, class, technology employed, or any other criteria. It is necessary to ensure that all relevant groups are included.		
Strategy differentiation	This can be done by income, access to market, gender, class, technology employed, or any other criteria. It is necessary to ensure that all relevant groups are included.		
Level of detail	More detailed, with direct information from individual actors	Less detailed, with systematized data and averages for the region	Mean data or national aggregates – sector trends.
Costs	Low. Costs of participative workshops, generation and analysis of information and feedback to participants.	Moderate. Costs of workshops, generation and analysis of information, transfer, lodging, communication of results.	High. Costs of workshops, generation and analysis of information, transfer, lodging, publication, and formal communication of results.
Methods	Participative, with local actors	Participative at times, but with the support of surveys or systematized data.	Emphasis on systematized data (databases, means, surveys, etc.) with key decision makers.
Capacity to convene.	Good for local actors, but difficult with external actors.	Good with regional actors, although may leave some out – greater possibility of convoking external actors.	Good with national actors, but possibly with little real representation – possibility of convening national decision makers.
Management, implementation, and capacity to negotiate.	Limited. Depends on local resources and desires of participants. If advances are achieved they may be sustainable.	Medium. Mix regional resources with external. May fall into the trap of depending on external actors and resources.	High. Good possibility of obtaining resources, but difficulties in implementation if clear rules do not exist among the actors.
Potential impact	Limited to the work zone, and perhaps some neighboring sites	Medium, with wider coverage	Even better, but with the challenges in implementation previously mentioned.

Observations on the Use of Participatory Methods

This guide is based on the use of participatory methods adapted from the school of Participative Learning and Action (PLA). These methods, which include focal groups, mapping, visualizations, social dramas, and many other forms of facilitated reflection, prioritize not only documented results, but also to the process of application as such. Although a concrete result is generated (a map, a matrix, a table, etc.) this is not the sole or even central purpose of the exercise. Of equal importance is the process of analysis and reflection that is generated by the participants themselves around the methodological tool. Often the discussions and agreements reached are more important than the final tangible result of the method.

In the case of this guide, the use of participative methodologies implies that we are going to hear many voices speaking about a single theme: a chain. These points of view will be quite different—what the rural producer thinks is very different to what a city trader thinks—but all the viewpoints have important information regarding the reality of the chain. To achieve our objective of understanding the chain, its strengths, weaknesses, and the design of a shared

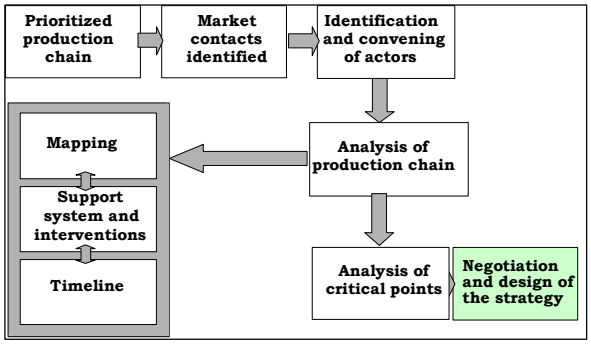
strategy to increase its competitiveness requires listening to all voices equally. Our role in this process is to document all the information, organize it, and give it back to the chain actors so that they may decide on what to do, together, to improve their economic activity.

The design of a strategy to increase competitiveness is a systematic way to generate an open, informed discussion among actors from a chain. But, at the end of the day, those who decide what to do, design action plans, and implement them are the actors themselves.

In this module, we have reviewed some basic concepts about chains; an initial definition of what the strategy to increase competitiveness can be, for what it is designed, and how it is carried out; some key ideas on production versus value chains; some appreciations regarding the scale of intervention; and finally, some initial ideas on the use of participative methodologies. In the next module, we will look in more detail at the principles behind this method. Many of these principles relate to the concepts that we have seen in this module, and together form a philosophy that supports the design of strategies to increase competitiveness.

Module 3

Basic Principles to design a Strategy to Increase Competitiveness



Guiding questions

1. What are the principles behind a strategy to increase competitiveness?
2. What characteristics and qualities are required to facilitate the design of such a strategy?
3. Why is it important to keep in mind the heterogeneity of the chain 's actors even within a single section of the chain?
4. How can research and development activities be combined in a strategy to increase competitiveness, in the short-, medium-, and long-term?

In the previous module, we saw some of the basic concepts underlying strategies to increase competitiveness. In the present module, we look in more detail at the principles behind the method. Many of these respond to some extent to the concepts that have been seen in the previous module, and together form the basic philosophy for the design of strategy for increased competitiveness.

A strategy to increase competitiveness is based on building agreements between chain actors to seek sustainable improvements in the competitive performance of a particular chain . This approach is inserted within a context of territorial approach to rural enterprise development, and endeavors to strengthen existing business support capacities and to create new abilities when these are lacking. The methodology is intended to be sufficiently clear to be applied by local actors—technicians, promoters, facilitators, leaders—without having to resort to external experts. These actors should revise the method and decide which parts are useful for them, which parts are not, and finally adapt this guide adapted to their needs.

To support this process we recommend keeping in mind some basic principles

Business approach and market orientation

A competitive strategy is a business tool. It has been designed to support enterprise activities that seek to increase incomes and respond to market demands. Before starting with a competitive strategy, local facilitators should have a clear idea of the strengths, weaknesses, and potential for enterprise development in the local area, and have up-to-date information on the market opportunities open to the territory. When selecting a chain with which to work, assessing the level of existing business organization and the market opportunity are essential.

The business organization of a chain does not have to be formal. In fact, there are chains that function well, have a systemic focus, and are competitive, based only on informal actors. Perhaps

the most common is a mixed system in which formal and informal actors intervene at the same time. It is important to reflect on the type (formal, informal, mixed) of business organization existing and its capacities. Are there key actors that move this chain ? Who are they?

Given the time and commitment required for designing and implementing a strategy, we recommend doing so in only cases where the market opportunity merits this investment (possibility of increasing sales and incomes of various actors). Trying to organize a competitive strategy around a chain with low value or minimum possibilities of added value is more difficult than around a chain with good potential. In the case of new or promising chains, care must be taken in analyzing and understanding existing market opportunities so as not to generate false expectations.

Chain focus – integrating functions from input provision to product consumption

The methodology reviews all the functions of the chain starting from input provision to the consumption of the final product. The existing enterprise and available business development services are analyzed as well as the functions of input provision, production, post harvest management, processing, and marketing. This wide analytical framework is important to understand the chain as a business system, and at the same time identify critical points where a minimum of effort will generate maximum benefits.

Coordination among different actors, including the private enterprise and business development services, to identify synergies

The methodology assumes that areas of common interest between diverse actors along the chain are not evident, and thus requires the facilitation of meetings and coordination. For this reason, the methodology seeks to incorporate and motivate of a wide variety of actors to define common objectives and strategies thus permitting a coordinated effort between them. In this approach, it is important to ensure that all key actors in the system are included. The organization facilitating the process should have friendly relations with all key actors or be disposed to build these relationships during the course of the process. Building contacts with actors in the private sector (big enterprises, supermarkets, local and external traders, those offering business development services, etc.) is sometimes complicated, given time limitations, but at the same time is critical because of the information they manage regarding the chain, the market, and its potential.

An additional objective is the identification of synergies among actors along the chain. The organization facilitating the process should involve representatives of all actors to highlight their interdependence and the possibilities of improving, together, their business activity. This does not mean to say that all actors participate at all times in the design of the strategy. It is highly probable that the private sector will not attend long workshops about the chain, but some of their representatives should be interviewed to capture their opinions, be present when results of the analysis are discussed, and participate in final design of the strategy. Despite being less participative due to time constraints, these actors can often help (or hinder) any proposed change in the chain , and therefore must be included.

Active participation in decision making by key chain actors

With the objective of having a good understanding of how the chain functions, it is important to have good representation from along the chain. Key input suppliers, producers, people involved in post harvest management and processing, marketing of the final product, or the provision of business development services to the chain need to participate actively in such a way that the different viewpoints are clearly heard.

In the same way, within each link of the chain there may exist groups that are important to differentiate. For example, if a chain includes the participation of large-, medium-, and small-scale producers, with diverse technologies, different access to resources, and thus different opportunities and limitations, it is important to have representatives of each group and thus design effective support strategies. People or organizations involved in processing activities are another example; different levels of technologies may exist that affect processing efficiency, costs, and final product quality. It is useful to differentiate these actors to better focus future interventions. At a consumer level, differentiation is also important. For example, consumers of varying income levels may have varying demands based either on product quality or price or a combination of the two.

Combining research and development activities to promote innovation

The final strategy can include both research and development activities at any point or points along the chain . Research actions can be oriented towards improving productivity, post harvest management, processing, marketing, or the provision of business development services with the purpose of resolving structural or strategic problems that limit the chain's competitiveness. One or various actors may implement development activities in a parallel fashion (for example, extending the use of an improved, but little known, technology). Like the research actions, these seek to increase the chain's competitiveness. Normally, short-term activities are focused on development outcomes, but as the strategy advances, and research results are obtained, these are implemented by or diffused among the chain actors.

The process of innovation is long term and, if possible, permanent. A reasonably long time horizon is important to guarantee the chain's competitiveness both now and in the future. In other words, improving the chain quickly is important, but if substantial (or sustained) improvements are sought, a strategic research system that facilitates innovation is key. It is important to clarify that "strategic research" is not necessarily an action carried out by specialists or research centers (although these may participate), but rather a permanent focus of innovation, learning, and diffusion that draws on both experts, and the knowledge of chain actors and their own capacity for innovation.[4]

Mixing short-, medium-, and long-term activities with local and external resources

A strategy to increase competitiveness, as well as including both research and development activities, proposes actions of short, medium, and long term with or without external resources. The strategy to increase competitiveness, like the Territorial Approach to Rural Enterprise Development of which it forms part, is based in the first instance on local actions with local resources. Before seeking external support, chain actors should strive to initiate activities using local resources and knowledge. This is useful because it promotes a positive dynamic between the actors through which they realize that they can do things without waiting for external support. In the medium and long term, local and external resources and knowledge can be mixed, and at the same time more complex actions or strategies designed and implemented to increase the chain's competitiveness.

There are three main reasons why is it important to think about time and resources from the start of the process:

[4] Three clear examples here are the master builders of local processing plants who may be excellent adaptors and diffusers of improvements in post harvest technology, Local Agricultural Research Committees (CIALs, the Spanish acronym) that carry out applied research focused on crop production at the community level, and Research Groups in Rural Agro-industry (GIAR, the Spanish acronym) that integrates post harvest technology and production improvements to develop value added products targeted towards a specific market demand .

1. A process initiated with local resources and knowledge tends to strengthen local capacities for analyzing and resolving problems, and thus assists in the development of capacities for innovation.
2. Seeking solutions to chain needs based on existing local resources instead of waiting for external resources (or projects) to solve the problem results in faster and more sustainable actions. Often the most efficient solutions require more commitment from actors than financial support.
3. Grounding activities in local resources tends to reduce the pressure of overestimating the chain's needs and possible responses. A clear example is the choice of technological options. When large-, or medium-scale funding is available, costly and complicated technological solutions tend to be chosen; while when solutions are based on local capacity of payment and maintenance of the technology, these tend to mesh better with local needs and conditions.

Identifying a process facilitator

Finally, the design of a strategy to increase competitiveness requires an organization or people that can facilitate the process. This organization can be a Producers' Association or other union (for example, a processors' association), a Local Chamber of Commerce, one or various nongovernmental organizations (NGOs), a university, a private enterprise, or other group. In CIAT's experience, NGOs together with organizations of producers are the most common facilitators of strategies to increase competitiveness, but in some cases others have promoted them (a regional center for competitiveness in Colombia, and a private support service enterprise in Peru, to name two). There are indications also that these processes could be led by strong private enterprises that seek to improve their competitive position and that of their chain .

The facilitating organization of this process should have certain basic capacities, characteristics and attitudes for the work, which appear below. Table 4 is a generalization of the basic conditions, and therefore should be taken as a guide and not as a definitive list.

Table 4. Identifying a process facilitator.

Capacity or characteristic	Necessary	Recommended
Position of neutrality in not representing any one player in the chain in particular	✓	
Experience with the management of participative methodologies and facilitation of the processes	✓	
Convening capacity and at least some level of influence in support policies to the sector	✓	
Disposition to facilitate design of the strategy and seek funds and support for its implementation	✓	
Interest in participating in the implementation of the strategy	✓	
Trust of the actors and a reputation of acting with transparency	✓	
Interest in building or improving local capacities	✓	
Previous experience in rural enterprise development		✓
Knowledge of market tendencies relevant to the chain		✓
Basic knowledge of the chain		✓

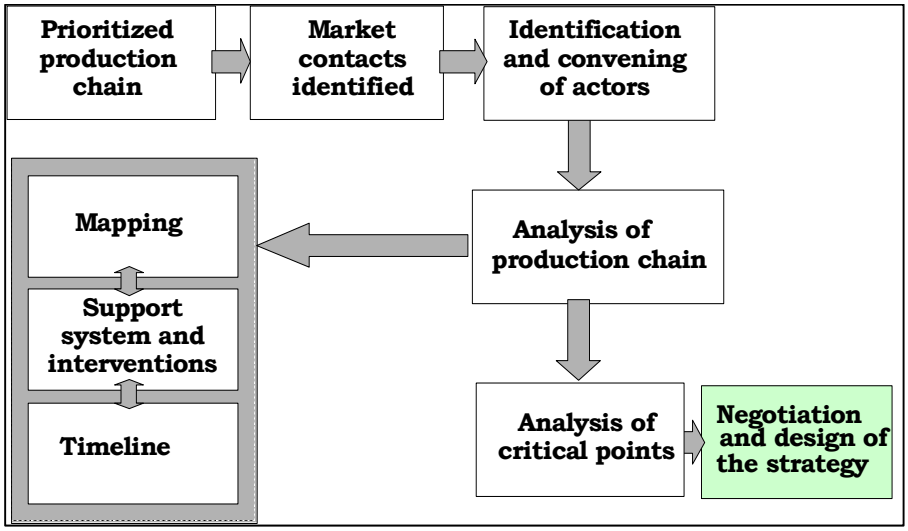
In summary, the design and implementation of a strategy to increase competitiveness has a business orientation, responds to clear market opportunities, analyzes the totality of the chain with contributions from key actors, seeks synergies between them to implement research or

development actions, and proposes actions at short, medium, and long term, with or without external resources.

Stages in the Design of a Strategy to Increase Competitiveness

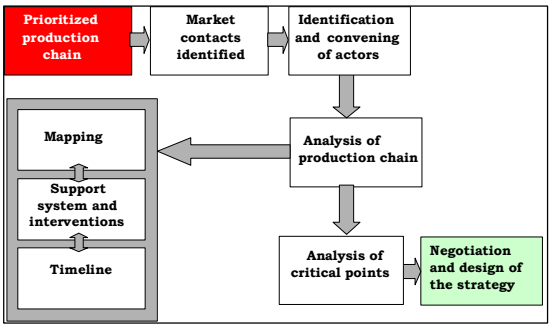
Figure 4 shows the different stages in the design of a strategy to increase competitiveness, which begins with the selection of a chain based on different criteria. Once the market contacts are identified, the next step is to identify the different actors and interest groups that should form part of the analysis. Once actors are identified and brought together, the chain is mapped, the level of business organization evaluated, the support system identified, and past interventions catalogued. Based on this information, the critical points for the development of the chain are analyzed. Next, a long-term strategic vision is prepared based on market prospects and innovation possibilities. Around this vision, a set of strategies is designed to resolve the critical points, take advantage of opportunities and contribute to an increased level of competitiveness for the chain and its actors.

Figure 4. Stages in the design of a strategy to increase competitiveness.



In this module, we have discussed the principles that support and orient the analysis of a chain and the design of a strategy to increase competitiveness. Some characteristics and qualities were identified that are required of organizations or persons intending to facilitate the design and execution of strategies to increase competitiveness. The importance of recognizing the heterogeneity of the chain's actors and its implications was also touched upon. Finally, the module closed with a brief discussion on how to combine research and development activities in the short, medium, and long term to generate innovations that permit increases in the chain's competitive position. In the modules that follow, each step of the method will be developed.

Module 4
Selecting a Chain



Guiding questions

1. What are some key criteria for selecting one or various chains with which to work in the territory?
2. How can these criteria be classified according to their relative importance? Which one/ones is/are more important than the others, and why?
3. Once the criteria are identified, how can they be used to separate key chains from those of lesser importance?
4. What are the advantages and disadvantages of using quantitative selection criteria and objectives compared with qualitative, more subjective ones for selecting a chain?

Introduction

Once the decision has been made to work using this method, the first step is the selection of a chain on which to work. This decision can be made based on diverse criteria ranging from the pre-selection of a product by a development project to a decision based exclusively on the use of market signals. There is no single, correct way for making this choice since it is a decision of the organization that will implement the process. Nevertheless, it is important to reflect upon the impact the use of diverse criteria might have on the success or not of the chainselected.

The selection of a chainseems easy enough, but the reality is somewhat different. In this process, the organization that will implement the strategy has to balance criteria such as effective market demand, consistent supply, poverty reduction or employment impact, technical, social and environmental feasibility, existing organizations needs and wants, among other factors. If this process is carried out in coordination with other organizations, each one with particular interests, it becomes slower, but at the same time, possibly more sustainable. The purpose of this process is to select, based on clearly identified criteria, the best bets for a given territory. A systematic process like this improves the possibility that the selected chain will be successful.

This module presents some generic selection criteria that have been useful in previous applications of the methodology, explains them briefly, and ends with the presentation of a concrete field experience.

Selection Criteria

The following criteria may be useful for selecting a chain on which to work. They do not represent an exhaustive list and they should be modified according to the criteria of the organization that will lead the design and put the strategy into motion. Equally, these can be applied simply or using a great deal of data and analysis. The final decision on which of the criteria to apply, and the way of doing so, remains in the hands of the organization facilitating the design of the strategy.

- **Market demand:** How much market demand is there for the chain's product? Is the market for this product growing strongly or slowly, is it stable or diminishing? We recommend working with primary products that show strong or moderate market growth since this usually implies that the market can assimilate additional production. In the case of new products, a survey of intent to buy can be done to identify potential market size.[5] This decision should be taken based on reliable information; it is best to use information from recent market studies, or surveys made by private or state institutions.
- **Product profitability:** How profitable is the production or processing of this product? How does the product's profitability compare with what a bank pays on money in a savings account? Is it much higher, a little higher, the same, or less than the bank pays? Comparing the profitability of various products requires calculating the internal rate of return (IRR) for each, and then comparing the interest rate paid by the bank. We recommend working with products that more profitable than the bank's savings account interest rate, which is the opportunity cost for savings. However, this is not a hard and fast rule given than opportunity costs for labor tend to be low or non-existent in many rural areas. It is important that the product be sufficiently profitable for the producers at actual market prices, and that the market demand is sufficient to assimilate additional product without entering a state of oversupply and price declines..
- **Potential impact:** How many families could benefit from a strategy to increase competitiveness in this chain? Will this strategy generate strong, medium, or low impact in terms of income for producers? What impact will this strategy have on least favored groups? On women as opposed to men? It is also important to ascertain if the strategy will generate rural farm or non-farm employment, and for whom. If the target population of the project or organization is a specific segment of the population (for example, small-scale producers, women, indigenous populations, youth, or others), it is important to ask ourselves if this group will be able to take advantage of the additional gains foreseen by the project. Working on strategies that present greater impact in terms of additional income in the zone is important, but without losing sight of the distribution of these benefits. Strategies with greater impact generate interest among possible participants and contribute to the business development of the territory as bring in additional profits instead of merely redistributing existing ones.
- **Feasibility:** Even thought a market demand exists, is it possible to produce this product in the territory given existing social, economic, and environmental conditions with the quality that the market demands? Is the production system for this product consistent with the sustainable natural resource management? The selection of chains that adapt to existing conditions and coincide with the facilitating organization's concept of natural resource management is recommended. If this is not the case, the facilitating organization should identify strategies to resolve feasibility limitations (for example, credit for installation costs of perennial crops such as fruits, simple systems of water harvest, micro-irrigation systems, or the identification of improved post harvest technologies). The existence of feasibility questions should not necessarily eliminate the product since solutions can be included as part of the activities to increase the chain's competitiveness.
- **Existing business organization:** What are the business organizations in the chain like? Are there formal or informal groups of producers, processors, or traders in this chain? How strong or weak are they in business terms? Is there coordination among them now, or was there in

[5] For more information, consult: Ostertag, C.F. 1999. Identifying and Assessing Market Opportunities for Small Rural Producers. Series of Tools for Decisión Making in Natural Resource Management, number 7. International Center for Tropical Agriculture (CIAT), Cali, CO. (online http://www.ciat.cgiar.org/agroempresas/pdf/tools_for_decision_making.pdf)

the past? In this criterion, care must be taken not to leave out informal actors and organizations such as local and regional traders and their networks of suppliers, who despite being informal, are business organizations that exist and function with some grade of effectiveness in the zone. This is not a matter of judging if they are "good" or "bad" organizations for the target population, but rather of identifying them as business organizations.

- **Support agencies:** Is there one or more support organizations associated with this chain? What services do they or could they offer to the chain? Are they willing to facilitate or participate in the design of a strategy to increase competitiveness? Again, it is important not to leave out the actors who are associated with the chain informally, in aspects of technology, credit, or technical assistance since they can facilitate or limit the design and implementation of the strategy.

Definition of Individualized Selection Criteria

Each organization or group of organizations should develop their own selection criteria. These can range from the most elemental to the most technical in nature. If the facilitating organization has some pre-defined chains as part of its project, then there is little sense in having long discussions. However, it may be interesting to discuss the order in which of these chains will be worked on. On the other hand, if a decision is being made amongst various organizations with different criteria and work agendas, this exercise can be useful for defining a common agenda instead of each organization working on its own agenda in isolation. The decision to apply this part of the method and how to apply it is in the hands of the facilitating organization(s).

If it is decided that it would be useful to prioritize among the various chains for the development of one or various strategies, then there are several methodological options ranging from simple (voting or discussion) to more complex (technical studies). Simple methodologies are quick, while technical methods permit more analysis and greater security in the decision made. A balance needs to be struck between subjectivity and objectivity that the participants feel comfortable with. It all depends on the needs of the facilitating organization. Generally, CIAT has applied more technical methods such as those described below.

A Methodology for Prioritizing Chains

With the intention of developing individualized selection criteria, we recommend a brainstorming session. This exercise can be done internally within the facilitating organization or among various organizations if there is a committee for rural enterprise development or other territorial organization with this focus.

The steps to follow in this process are:

Identification of criteria

(a) Select a facilitator who is capable of organizing the results. It is best to name two people, one as facilitator and the other to document the decisions and take notes on the process.

(b) Ask each participant to write a list of three criteria in response to the question: "What are the most important criteria for selecting a chain with which to work in our territory?" Each answer should be recorded on a card (one criteria per card, in big letters, maximum three lines) and given to the facilitator.

(c) The facilitator reads out each card and places it where it is visible to all participants (wall, floor, table, blackboard, etc.) without additional comments. Only clarifying questions are permitted at this time.

(d) Once all ideas have been read out, they are grouped by common themes. For example, all cards that are related to the theme of impact are put together on one corner of the wall. All those to do with profitability on another, etc. If some cards do not fit in any group, they are put aside for later revision.

(e) The facilitator invites participants to revise each group of cards to see if one or more common criteria can be generated among them. At this point, it is useful to underline the common themes among the cards and look for a phrase or title that summarizes the cards. Once a summary phrase or title has been defined, it is placed on top of the group of cards on a new, differently colored card. This exercise is repeated until all the groups of cards have been revised.

(f) When work with the groups of cards is finished, the different cards that were not initially classified are looked at again, to see if the idea is already in another group or if it is worthwhile including as a separate theme.

(g) Once the themes are defined, there should be a list of selection criteria to apply to the chains of a given territory.

At this point it is useful to review all the criteria selected and decide on which are the most critical for the decision making process. We recommend a list of three to four criteria with easily measurable indicators so as not to spend an excess amount of time on the chain selection process. Once the criteria are selected, the group moves to identify indicators and measure each one.

Using the criteria

Based on the list of criteria identified previously, the group proceeds to define indicators for each. For example, if of our criteria is potential impact, we define how impact will be measured (persons, families, communities, municipalities, etc.) and where the data will come from. If another of our criteria is profitability, then decisions must be made on how to measure profitability, which data to use, and with what to compare the profitability of the heading. Depending on the number of criteria and points of view, this process may take more or less time. The end product is a list of operational criteria with their respective forms of measurement and data sources.

Arranging criteria according to relative importance

Using the list of criteria and their respective indicators, we proceed to prioritize criteria: Which is the most important of them all for us? Are chains that involve more producers of higher priority than those that are more profitable? Is it more important that the activity be sustainable in environmental terms, or profitable? This step gives a specific weight to each criterion with the purpose of enlarging the differences between the options, reducing the number of ties, and thus facilitating selection of chains. At the end of this process, we have arranged the criteria from the most to the least important, and each is assigned a score or weight. For example, if there are four criteria, the most important could have a weight of four points, the second of three, the third of two, the fourth a single point.

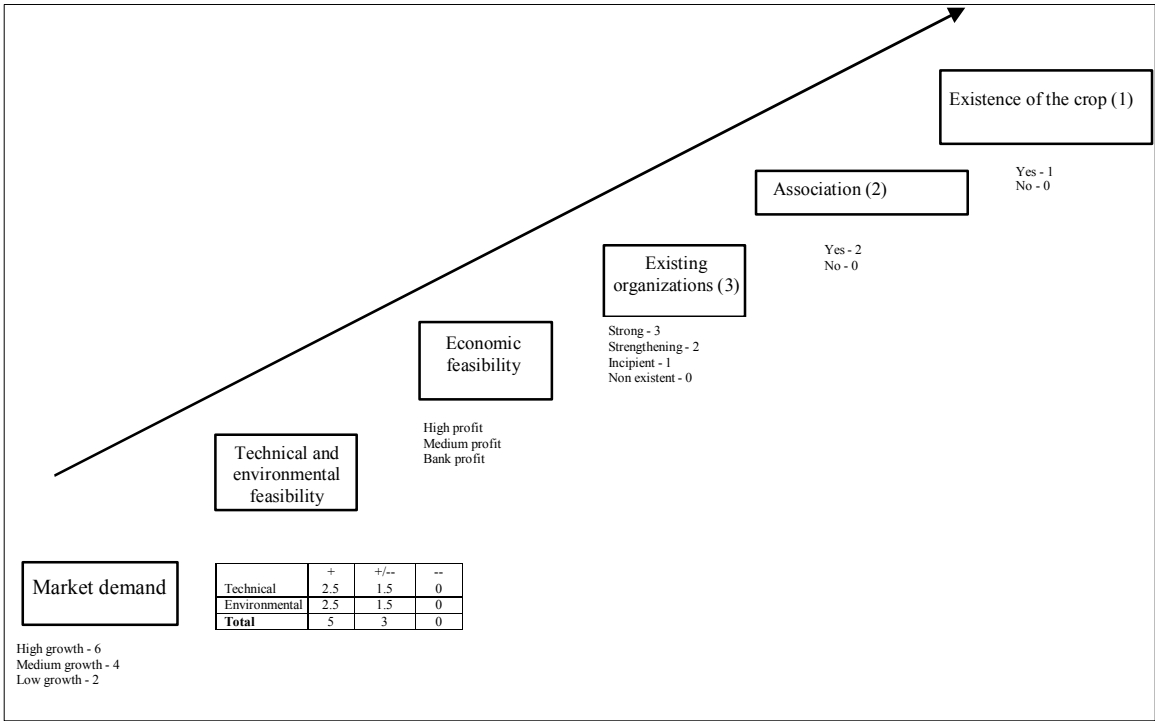
Selection Tool

Using the list of criteria with the indicators and sources of information, the final step is the construction of a selection tool. This tool can take the form of a decision tree (see example 1 below) or a simple weighted scoring matrix (see example 2 below). What is important is that the criteria are clear to all participants and that we have the necessary supporting data to take decisions. Once the tool is established, it is applied to all potential chains in a territory to see which are the most important for us.

Example 1 – The Decision Tree of CIPASLA, Colombia

To facilitate selection of chains among multiple options, agendas of support organizations, and interests of community groups, the Rural Agro-industrial Committee (RAI) of the Consorcio Interinstitucional para una Agricultura Sostenible en Laderas (CIPASLA) developed the decision tree presented in Figure 5. The objective was to compare a long list of chains with market opportunities, favorable conditions for production in the zone, and with some degree of interest or organization of producers. The development and implementation of the example presented in Figure 5 was a long process, as it required the agreement of four local NGOs, a governmental organization, and a producer association. The process was carried out in three 2-hour meetings and was useful for the members of the RAI.

Figure 5. Decision tree of the Rural Agro-industrial Committee (RAI) of the Consorcio Interinstitucional para una Agricultura Sostenible en Laderas (CIPASLA), Colombia.



	+	+/--	--
Technical	2.5	1.5	0
Environmental	2.5	1.5	0
Total	5	3	0

Source: RAI of CIPASLA, 2000.

This decision tool was applied using the following criteria and measurements: each option studied received a score out of the total possible of 21 points. The criteria and measurements used were:

Market demand

The growth of market demand is organized in three categories:

High – annual growth in demand above 6%
Medium – annual growth in demand between 3% and 5%
Low – annual growth in demand between 0% and 2%

Note: In the case of CIPASLA, indicators on the level of growth of each product were taken from "**Market studies for products of small-scale producer economy of the zone of the Cabuyal River micro-watershed**".

Following these criteria then, we have the following distribution of products:

Growth	Products
High	Mangos, blackberries, oranges, plantains
Medium	*Lulos*, pineapples, lemons, potatoes, grapes, passionfruit, *chonto* tomatoes, capsicums, carrots, green beans, free-range chickens, milk products
Low	Tree tomatoes, broccoli, pears, soursop, cauliflower, Batavia lettuce, bananas, guavas, apples, *uchuvas* (*Physalis*), onions, melons, coconuts, avocadoes, passion fruit, dry beans, beetroot, spinach, green beans

Technical and environmental feasibility
The matrix is read in the following way:

Feasibility	Highly feasible ++	Medium feasibility ++/--	Not feasible --
Technical	Production is feasible in the zone and does not present major technical nor managerial problems	Production is feasible in the zone, but presents limiting technical and mangerial factors that require training and research solutions	Production is not technically feasible in the zone
Environmental	Production does not generate negative environmental impacts in the zone such as erosion, contamination, or deforestation	Production generates a negative environmental impact, but it is manageable with good production practices	Production generates a highly negative environmental impact with no known form of mitigation

Economic feasibility
Chains are grouped according to three levels of profitability:

Highly profitability – the product's IRR is 6 points or more over the bank's savings account interest rate.
Medium profitability – the product's IRR is between 1 and 5 points over the bank's savings account interest rate.
Bank profitability – the product's IRR is equal to the bank's savings account interest rate.

Existing organization
The level of business organization in each chain is assessed using the following criteria:

Criteria	Level of organization		
	Strong	**Growing in strength**	**Incipient**
Legal incorporation	Legal incorporation	Legal incorporation is in process or does not exist	No legal incorporation
Achievements	Sustained achievements over various years	Some recent achievements	No achievements as yet
Capacity for planning and carrying out actions	Internal processes functioning for planning and evaluation	Incipient processes of planning and evaluation	No processes of either planning or evaluation
Business practices	Effective accounting and administrative controls	Incipient accounting and administrative controls	No accounting and administrative controls

A strong organization fulfills all four criteria.
An organization growing in strength fulfills some, but not all, criteria.
An incipient organization fulfills none of the defined criteria.

Support agencies
An organization is interested in associating with producers in the process of strengthening the chain.

Existence of the crop in the zone
The crop or product exists in the zone, and thus is known by local producers.

For each product identified with market options, and of interest to CIPASLA partner organizations or producers, relevant information was collected for each point above. Once the information was completed, possible points for each criterion were assigned, and total points generated for each product. To select the products for which to first elaborate strategies to increase competitiveness, scores were compared to identify those that best responded to the criteria of the RAI of CIPASLA.

Example 2 – Simple weighted scoring matrix [6]
Another way to implement a decision-making process using the criteria identified is to use a weighted scoring matrix as shown in the following example.

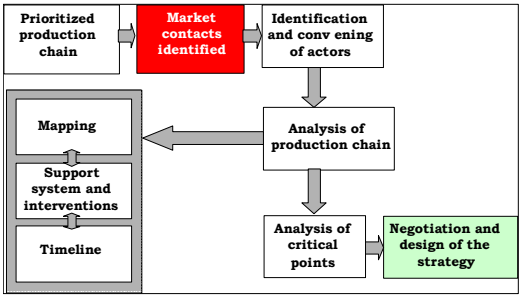
Selection criteria	Weight (W)	Product A		Product B	
		Evaluation (1 to 10)	W * E	Evaluation (1 to 10)	W * E
Potential positive impact on smallholders	25%	8	2.00	6	1.50
Potential employment generation in relation to total local employment	35%	6	2.10	4	1.40
Value added potential of the product	20%	6	1.20	6	1.20
Size of the chain's market	10%	8	0.80	10	1.00
Potential employment generation for vulnerable groups (women, youth)	10%	4	0.40	10	1.00
TOTAL	**100%**	**32**	**6.50**	**36**	**6.10**

6. Adapted from: RURALTER, 2004. Guía Metodológica para el análisis de cadenas productivas. Mesa de trabajo "Desarrollo Económico" de la plataforma RURALTER. Quito, Ecuador, Marzo. Page 18.

This system seeks to combine a simple scoring system with the relative importance of the selected criteria for a more targeted decision-making process. In this example, Product B actually has a higher overall score but when the weighted criteria are applied, Product A is better.

This module has presented some criteria that have been useful for selecting chains within a territory. The identification of prioritized chains is the first step for proceeding with the analysis of the chain and the design of a strategy to increase competitiveness. At the end of the exercise, instead of having many chains to work with simultaneously, the facilitating organization or work group should have a few chains selected according to their own selection criteria. Once the work menu is defined, the remaining steps of the methodology of strategies to increase competitiveness can begin to be developed.

Module 5
Market Information and Contacts



Guiding questions

1. Why is it useful to have up to date market information for the chain's products before beginning the analysis?
2. What information is it useful to have about the product or products, the market, the rules of the game, and the buyers?
3. How can we generate reliable information on the market in a quick and efficient way?
4. What decisions can be made based on up to date market information, and what implications do these have for elaborating a strategy to increase competitiveness?

Introduction

The selection of one or several prioritized chains using methodologies such as those described in the previous module allows us to focus our efforts on a few chains with good potential for change in accordance with the interests of the facilitating organization or working group. Once the chains are identified, we need to assess whether on not the necessary information is available for analysis. As a first step we recommend reviewing market and product information. Who is the client for this product? What ranges of quality are acceptable to the buyer?

To answer these and other queries, we recommend revising existing data of market tendencies or carrying out a rapid survey with known or potential buyers of the product. This phase of the method seeks to place the process on a firm footing with reliable market data, and at the same time identify and get to know the clients of the product or products. Likewise, it is a good opportunity to invite key clients to participate in the analysis of the chain and the elaboration of the strategy to increase competitiveness.

Rapid Market Survey [7]

A rapid market survey should not be confused with a complete market study, but rather understood to be a short exercise that permits identification of certain key aspects of the market(s) for the chain's product(s). Specific key information is sought that helps in decision-making. The required information can be divided between data about the buyer, the product itself, and other specific observations defined prior to the survey. What is important is to clearly define what information is needed to make business along the chain more dynamic, evaluate the possibility of establishing new business with key buyers, and permit the definition of possible strategic buyers for the chain .

[7] This section presents a simplified version of a rapid market survey. For a complete explanation on identifying market opportunities, consult: Ostertag, C.F. 1999. Identifying and Assessing Market Opportunities for Small Rural Producers. Series of Tools for Decisión Making in Natural Resource Management, number 7. International Center for Tropical Agriculture (CIAT), Cali, CO. (online http://www.ciat.cgiar.org/agroempresas/pdf/tools_for_decision_making.pdf)

Data about the clients

The basic data needed about the clients are:

- Name
- Location (exact address, city, department, etc.)
- Contact information (telephone, fax, cellular phone, electronic mail, etc.)
- Type of client (trader, supermarket, restaurant, hotel, institution)
- What other products are bought

Data about the product

The data required about the product are:

- Description of the product and its presentation (weight, packaging, etc.)
- Legal requirements for selling the product (sanitary registration, bar codes, packaging, legalized invoices, etc.)
- Product price and form of payment (cash, credit, for how many days)
- Price paid for the product
- Volume of the product required by the client
- Frequency of product delivery (dates, periods, etc.)
- Site of product delivery (at the buyer's site, on the farms, etc.)

Additional observations

In addition to these data, we can ascertain whether the client is interested in new suppliers of the product, whether s/he is interested in participating in more strategic long-term relations with groups of producers, or whether s/he wants other products that could be of interest for the territory. At this time, it is important to identify clients with whom a commercial relation can be achieved. This process goes beyond simply saying "market demand exists" to identifying people with whom the chain's producers can negotiate. If there are clients who express reservations about working with small-scale producers, for example, finding others who are more flexible in this sense is recommended.

Survey methods [8]

The simplest and quickest way of performing a market survey is by means of structured or semi-structured interviews with the clients. These interviews should be designed beforehand and the facilitating organization can carry them out either with producers, extensionists, students, or any other suitable group. The complexity of the surveys and the requirements for the survey takers vary according to the market. For a local market, the producers themselves, or secondary school or university students, can carry out the survey. However, for an urban market, far from where producers live, we recommend organizing a mixed group of producers, extensionists from the facilitating organization, and students for carrying out the survey. Regardless of the selected market, it is highly recommended to include several of the chain's key producers or processors since these are in a good position to diffuse survey results to their neighbors and acquaintances, and thus firmly establish bases for later changes in the technology or product.

If the actors hope to use the survey results to motivate changes in the form of production or product quality, it is useful to gather graphic evidence of the visits to the market and the products seen using photography or video for later demonstration to other chain actors. Sometimes, being able to clearly show the differences between the quality of one product and another, or a new form of packaging, is enough to motivate a change in the chain's actors.

[8] For a full discussion on the theme of methodologies, consult Ostertag (2000).

To perform a rapid survey, a group of market researchers (or facilitators) is formed. This group should participate in the design of the tool and the questions to make sure they understand both clearly. Once the survey tool is designed, it should be tested with local actors to: (a) verify that the information sought is obtained; (b) identify possible gaps, and (c) ascertain that the survey can be carried out in a reasonable time. Likewise, the forms that will be used for recording the data should be tested, and their ease of use verified. When the tools are ready, groups of researchers are formed to perform the survey, and each is assigned tasks.[9]

Several research teams can carry out the survey in a single day, or a lesser number can do so over a longer period. Given that markets are not static, it is important to carry out the surveys in a timely fashion; within 1 to 2 weeks at most is better in terms of capturing easily comparable data. If the selected market is large, an urban center for example, it is best divided amongst several groups of researchers. At the end of the day it is useful for the groups to meet to review results, compare notes and decide how to manage any difficulties.

Documenting Results

Once the survey is complete, results should be documented as soon as possible. There are many ways of documenting and systematizing survey results, what is important is to choose a format that permits a useful comparison, and that makes sense to the participants. Information to be included in the format can include:

- Name of the company or client
- Location and contact information
- Quantity of the product bought by day, week, month, or year
- Means of delivery of the product (with or without processing) and required packaging (bag, basket, tray, etc.)
- Present source of the product being bought and present suppliers
- Prices and form of payment
- Special requirements (health registration, bar codes, etc.)
- Possibility selling to this client

In the case of chains that include multiple products, it is useful to generate a table for each product. For example, if we are gathering market information for a dairy chain, we can identify buyers for fresh milk, pasteurized milk, cheese, yogurt and other sub-products. Each specific product has different characteristics that are important to identify.

Table 5 presents an example format that has been used in the past for this type of survey.

[9] These groups can be composed of a single person, or up to three or four persons. According to CIAT experience, groups of from two to four persons are best since it is difficult for a single person to interview and document answers at the same time, while large groups tend to intimidate those being interviewed.

Table 5. Results of a rapid market survey for *panela* (unrefined sugar).

Company	City	Weekly quantity[a] (*arrobas*)	Form	Packaging	Source	Suppliers	Price (pesos)	Payment	Requirements	Possibilities of sale
Olímpica	B/ ventura	25 15 10 10	Round Powdered	Bag/24 pkt	Candelaria	Caña Dulce – extra Caña Dulce – corriente Olímpica Estrella Buen Gusto 400 gr	10,800 9,900 8,900 10,400 18,000	30 days	Label of *panela* source, Codification in Cali	Good
Distrib. Casa Blanca	B/ ventura	40	Round	Bag/24 pkt	Palmira	Palestina Estrella	11,000 10,000	15 days	Sanitary registration, packaging does not matter	Good
Merka Mar	B/ ventura	80 80	Round Round	Bag/24 pkt 2 units	Candelaria Candelaria	Palestina Palestina	9,800 11,000	30 days	Sanitary registration, packaging does not matter , depends what is offered	Good
La 14	B/ ventura	n.d.	Round Round Powdered	2 units 2 units	Candelaria	Palestina Estrella Buen Gusto 400 gr	n.d.	30 days	Depends on Cali, the codification is through Cali	None
Olímpica	Buga	n.d.	Powdered Powdered Round Round Round Round Round 8 squares 1 kg 8 squares 1 kg	Bag Bag Vitafilm None Vitafilm Vitafilm Vitafilm Vitafilm Vitafilm	Candelaria Medellín Cali Candelaria Bugalagrande Candelaria Candelaria Bugalagrande	Palestina 500 gr Buen Gusto 400gr Olímpica AA Triangulo Lucerna Palestina Palestina Lucerna	32,149 41,860 19,870 20,540 21,767 24,112 28,130 30,363 25,898	30 days	Label of *panela* source, Codification in Cali	Medium

Source: Corporación para el Desarrollo de Tunía (CORPOTUNÍA; 2000).

a. 1 *arroba* = 25 lbs.

Using Results

The results of the survey are useful in various ways. First, they allow us to meet clients of the chain, which facilitates selecting those who will participate in the elaboration of the strategy as representatives of the marketing link. Second, they help identify which buyers are more open to collaboration with the chain's other members, and where they are located. Third, the results give an indication of the actual volume of the product that enters the market; this fact is important, to know how much of the product the market is presently absorbing and at what price (a rough proxy for product demand). In the same way, clients can be asked at what price they would be prepared to buy more of the product.

The survey results give us a clear idea on product delivery and the form of payment presently used. Based on this information, the differences between the quality of our product or its packaging and existing market norms can be identified. Also, it is possible to revise the mechanisms of payment managed by the clients, analyze which is the most favorable for the chain's producers, and what would be the implications of beginning negotiations with different types of buyers.[10]

Also, based on the survey, clients can be classified according to the possibility of selling to them or their strategic value for the chain. Some useful criteria in this exercise can be the volume that each client manages, the segment s/he attends, the use s/he gives to the product[11], the price s/he pays or is prepared to pay, and disposition (or not) to establish strategic relations with other members of the chain. At this time, it is important to make sure that information generated covers the market(s) in which we hope to work.

Finalizing the process of information and market contacts, the organization or facilitating group should have clear:

- Who the clients of the chain's product(s) are.
- Where they are located and how to contact them.
- What the rules of the game that govern the market and its most important segments.
- What quality of product is required for the diverse segments of the market.
- Which of the clients should participate, directly or indirectly, in the design of a strategy to increase competitiveness.

In this module, we reviewed the principal reasons for carrying out a rapid market survey if we do not have access to up to date data on the products and markets with which to work. A short list of the key data to collect regarding clients, product characteristics, form of payment and other strategic themes was discussed. Finally, some simple methods, forms of documenting the results, and their usefulness for a strategy to increase competitiveness were mentioned. In the next module, we will proceed to identify the key actors and design strategies to convene them for the strategy's elaboration.

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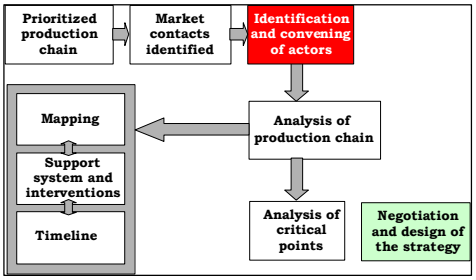
[10] A good evaluation of the requirements and rules of the game that reign in different segments of the market is useful. At times a "good" market turns out to be not so good when these factors are analyzed. A concrete case is the supermarkets that tend to extend payments to their suppliers for 30 days or more, and at the same time discount money for product not sold. At the outset, their prices and volumes are favorable, but it may not be the most profitable segment for small-scale producers.

[11] If clients exist that use the product in different forms (for example, the extraction of essential oils from aromatic plants) it is important to take them into account. Sometimes these non-traditional businesses have greater possibilities of growth and demand for strategic relations than the traditional channels. Furthermore, because of being relatively new, there is possibly less competition in these segments.

Module 6
Identification of Actors in the Chain



Guiding questions

1. Who are the key actors in the chain that should be consulted for their point of view?
2. Are there important differences between actors that participate in the same link of the chain ? What are they? Why do they exist?
3. Why is it useful to differentiate the actors along the chain? What are some advantages or disadvantages of doing this?
4. Which actors have the capacity to lead processes of innovation in the chain? Which factors are important for promoting lasting changes in the chain?

Introduction

Up to this point in the guide we have covered two preparatory steps for elaborating a strategy to increase competitiveness: selecting the chain in which to work and generating or systematizing specific market and product information. In this module, we will cover the final step of preparation prior to analyzing the chain. In this section, various important points related to the identification of key actors, a strategy for convening them, and the organization of workshops for the strategy's elaboration will be covered. At the end of this module, the facilitating organization will be ready to convene the participants and elaborate a participative analysis of the selected chain.

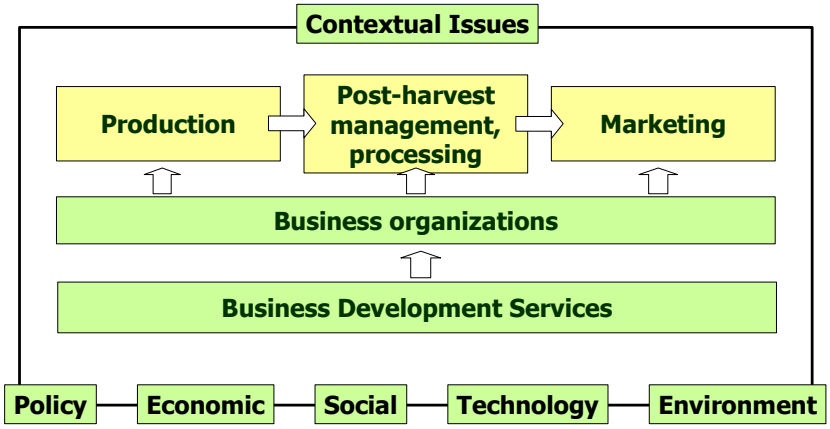
Identification of Key Actors

The identification of key actors has two basic steps: (1) an analysis by each functional category of the chain, and (2) an analysis within each functional category. The first step seeks to identify the chain's general participants by functional category (production, post harvest management, processing, marketing, provision of business development services), locate them geographically, and obtain some data about them. Results from this step include a list of actors (people, groups, companies, etc.) by function. Based on this information, each functional category is reviewed to assess if we can deal with all actors as single group or if they must be further divided based on social, gender, economic, geographic, technological or other criteria. The differentiation of the actors constitutes the second step for their identification.

Identification of the chain's actors by functional category

The identification of actors by functional category is based on Figure 3 (from Module 2), repeated here.

Figure 3. Wider perspective of a chain .



Actors are grouped by the following functions:

- *Production* – actors whose functions are directly related with basic agricultural production, including input provision, for elaborating the chain's product(s). This category can include pre-production, production, harvest, or extractive activities.
- *Post harvest and processing* – actors whose functions are directly related with post harvest management (cleaning, sorting, packaging) or its processing into value added products (for example, processing milk into cheese, sugarcane into *panela*, or other types of processing). These activities may be in the hands of individual actors or rural or urban companies, within or outside the territory.
- *Marketing* – actors whose functions are related to the chain's product(s). In general, these actors move the product from the territory to the end markets (as traders), but wholesalers located in urban centers can also be included. Various marketing actors can be involved depending on the geographic extension of the chain under analysis.
- *Providers of business development services* – individual actors, organizations, or companies that offer business development services to the chain. The services offered by these actors can be tangible (transport, machinery, storage, among others) or intangible (technical assistance, training, etc.), and formal (NGOs, state agencies, companies, etc.) or informal (transporters, local traders, other farmers, etc.)

In operational terms, actors can be identified through brainstorming with a small group that knows the chain . At this point, an exhaustive list of the actors is not needed, but rather an idea of key actors for each functional category. If the participants do not have much information on some functional categories, then interviews may be necessary to generate reliable data about the actors in this part of the chain .

At the end of this process, results can be documented in a table such as Table 6.

Table 6. Actors identified by functional category in the chain.

Function in the chain			
Production	**Post harvest and processing**	**Marketing**	**Business development services**
Actor 1 Actor 2 Actor 3, etc.	Actor 1 Actor 2 Actor 3, etc.	Actor 1 Actor 2 Actor 3, etc.	Actor 1 Actor 2 Actor 3, etc.

Differentiation of Actors within the Chain

Once a list of actors by function has been generated, the differences between them are examined. The framework of analysis here the functional categories, which are revised one at a time. Within each functional category, actors are reviewed to see if there is sufficient variance among them to merit differentiating them into sub-categories. Some criteria for differentiation include:

- *Technology* – are there important differences between the technologies used by different actors within the functional category? Examples of these differences are production or processing technologies that vary from the rudimentary to the modern. If we group actors by technology used, do diverse groups emerge?
- *Geographic location* – are the actors grouped in a single site or spread among several? What implications does location have? Are there producers with better land than others? How does access to markets or business development services vary? Are the problems or opportunities sufficiently different in each site to merit a disaggregated analysis?
- *Access to capital*[12] - Is there important differentiation in terms of access to capital? Are there some who have better or worse access to productive resources? An analysis of access to capital could be useful for grouping actors in each functional category.
- *Capacity to innovates* – Do certain groups of actors along the chain have more or less capacity to innovate? Who are they? What are their motivations to innovate in the chain? In some cases, the clients promote innovation through changing product standards, but in other cases the agro-enterprises processing the product want to improve their market position through the development of new products.

At the end of this process, actors in each functional category are differentiated based on key criteria and a decision is made on which groups should participate in the design of the strategy to increase competitiveness. Table 7 shows one way to systematize these data.

Table 7. Differentiation of actors in the functional category of production.

Principal production orientation	**Geographic location**		
	Zone A	**Zone B**	**Zone C**
Commercial	6 producers	None	2 producers
Semi-commercial	5 producers	4 producers	8 producers
Subsistence	10 producers	12 producers	12 producers

If more than two criteria are used, a name is defined for each group of characteristics. For example, a *small-scale subsistence producer* can be one that is (a) located in hillsides, (b) has traditional technology, and (c) has limited access to production assets. The facilitating organization defines appropriate local criteria for differentiating actors.

[12] Capital refers to tangible active products such as land, tools, or money, and intangibles such as access to support networks.

For each actor typology identified, a brief description with the most salient points can be prepared including the number of actors in this category, their social, ethnic or gender characteristics, their leadership in the chain, their capacity to assume risks and innovate or other relevant criteria. Box three contains a brief example of an actor typology.

INSERT TRADER EXAMPLE FROM SANTA CRUZ DE TURRIALBA HERE (see page 34 SNV guide for example)

The objective of this exercise is not to complicate the selection process of participants, but rather to verify that groups representative of the all chain functions are included. The main justification for this is to assure that we will receive the most complete view possible of the chain as it now stands. If, for example, we only include processors using modern technology, the identified problems and support options will be adequate for them, but not for the other processors that use more rudimentary technology. The same occurs with the geographic location of the chain actors; hillside producers, for example, commonly face different problems than do low land producers. Indeed there are probably differences between the hillside areas located at different altitudes. What is important is to assure that all groups expected to participate in chain analysis and in the final strategy are identified and included to correctly identify limitations and construct adequate solutions for their diverse conditions.

Convening the Actors

Once the chain's actors are identified and analyzed, a group of them is selected to design the strategy to increase competitiveness. It is neither necessary nor desirable to convene all of the actors, but rather to choose a subgroup of strategic actors for this process. The definition of strategic depends on the objectives of the strategy. If we are seeking to improve the links of small-scale hillside producers with an intermediate urban market, and finally with various export companies, then strategic actors should be selected from each of these groups.

For the selection of these actors, two general criteria have been useful: (1) that they are interested in participating, and (2) they have the capacity to improve the chain. The second criteria is important since it leads us to analyze which of the actors can influence the chain most rapidly. This means including powerful actors, sometimes known as chain "captains" in the exercise. These persons and companies exercise diverse forms of influence on the chain. For example, a producer or group of producers that has experience in developing innovative production technologies can have quite a lot of influence on how production occurs. In the same way, a processing company that is interested in new forms of product presentation, developing new products for the market, or entering an alliance with producers can have great influence. The final buyers of the product have purchasing power, and if they participate can facilitate rapid and lasting changes in the relations between other actors. Finally, the support organizations (including the one that facilitates the chain analysis) have negotiating power with the diverse actors. Often, this power is used to negotiate better terms of exchange between the different actors, and at the same time verify that all are complying with what was agreed on. In this sense, all of the identified actors are reviewed and the most appropriate selected for the exercise.

An Observation on Numbers

A common error is to try and involve everyone. Provided that good representation of the different actors exists, there is no benefit to having a larger number of participants. In practice, almost always producers are the most numerous participants, followed by processors and support organizations. The group that least participates in workshops, but not in the implementation of the strategy, tends to be the traders or buyers. Provided that there is adequate representation for each

group of people who know the chain, the total number of participants should not be a cause for concern.

Organizing Workshops

The organization of workshops with identified actors for mapping the chain, identification, and analysis of problems and of final negotiation are the principal form of obtaining information, discussing difficulties, seeking possible solutions, and achieving agreements among the actors. Therefore, the adequate organization of these spaces is important. Main factors to keep in mind are: explaining the process of elaborating a strategy to increase competitiveness, the site and the time needed for each workshop and for the whole process, the expected results and benefits, and the use of the results. Each factor is described below.

The process

At the start of the first workshop or informative meeting, it is important to explain to participants why increased competitiveness is important, how the process will function, who will participate at what times, and the expected results and benefits. This can be done using a flipchart or other communication technique. Highlighting that this process seeks synergies among actors is important to clarify that the process does not intend to exclude actors, but rather to improve the overall functioning of the chain.

Presentation of participants

Once the process is clarified, we recommend a round of presentations. There are many ways of doing this. Choosing a method that promotes contacts along the chain (for example, producers with traders, and processors with support organizations) is recommended. Mainly, the idea is to show to the group who the participants are, their role in the chain , and what their expectations or interests are in the process.

Selection of an adequate site

The elaboration of the strategy to increase competitiveness requires various spaces for group work, plus a central site where all participants can be brought together. Depending on the number of participants, these spaces may be at one site (different rooms or corners of a large room) or in several. The following steps of the method explain when to do group work and when to hold plenary sessions. If separate sites are used for different actors, we recommend that they be close by so as to facilitate plenary sessions.

Scheduling

The methods described in this guide require time. It is important to clarify with the participants how much time is needed, and how much time they are prepared to invest; also, it is important to organize the workshops so that they adapt to the time the participants have available, which in practice, may imply working in the afternoon or night or over weekends.

Expected outputs

At the start, it is a good idea to explain what the expected outputs are. Generally, these results seek to increase the chain's competitiveness, but it may be that the facilitating organization wishes to highlight additional benefits for the chain actors; for example, explaining to those that offer business development services that the results can be used to present funding proposals to improve the chain, or to the traders that results will include shared quality criteria along the chain.

Use of results

From the start it is necessary to make clear that the results of this process will be shared among the participants, may form part of future projects, and form the basis for negotiation at the end of

the process. If there are any concerns in this regard, it is good to clarify them at this time or achieve specific agreements about the use of the information. At the end of each stage of the process, systematized results should be shared with all participants in a timely fashion.

Ownership of results

Given that most of the information comes from the chain actors, their contributions must be recognized in whatever document or presentation comes out of the process. The facilitating organization should be recognized for its work, but it must be remembered that the real owners of the information are the chain actors themselves.

Time line for workshops

Elaborating a strategy to increase competitiveness usually requires four 6-hour workshops, organized over 3 or 4 months, depending on the availability of the actors. These workshops cover chain analysis, identification limiting factors, proposed solutions to these, and negotiation among the chain actors for the final strategy. Table 8 shows a time line used by an NGO in Colombia.

Table 8. Time line of design workshops for a strategy to increase competitiveness.

Workshop	Contents	Results
1	– Presentation of the process and expected outcomes – Presentation of participants – Mapping the chain – History of the chain – Business development services	– Map of the chain – Historic graphic of activities of support and innovation in the chain – Supply, demand, and quality of business development services
2	– Identification of critical points by functional category – Analysis of causes and effects of the critical points	– Problem trees for each functional category – General problem tree for the chain
3	– Identification of possible solutions – Generation of a provisional logical path	– Solution tree for the chain – Provisional logical path for discussion
4	– Negotiation among chain actors – Definition of the final strategy to increase competitiveness	– Agreements among actors for the chain improvement – Inputs for the strategy to increase competitiveness

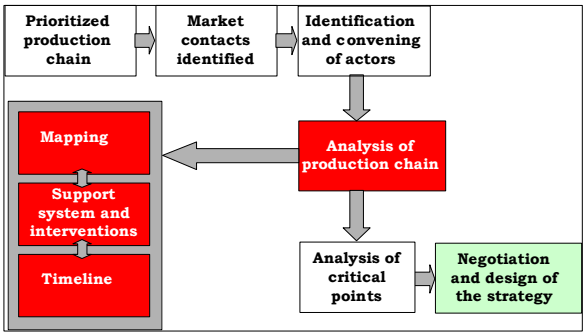
Other Sources of Information

The main sources of primary information on the chain are the actors themselves. However, it is probable that some chain actors do not participate in the workshops because of their business activities or interests. Therefore, the facilitating organization must think of other ways of collecting their points of view and information. Some techniques that have been of use for CIAT are: interviews (semi-structured and structured), visits, and focus groups. The participation of all strategic actors in the final negotiation sessions is critical as this is where actions to improve the chain are negotiated and defined.

As well as primary information from chain actors, secondary information contained in reports, books, or other available documents about the chain is useful. In the case of secondary information, it is important to share and validate this information with participants in the workshops.

By the end of this module, the facilitating organization will have identified chain actors by functional category, ascertained if it is necessary to differentiate among sub-groups in each functional category, selected strategic actors for strategy design, and organized the details of the workshops. The next module explains the first step of chain analysis: the mapping of the chain .

Module 7
Participatory Analysis of the Chain



Guiding questions

1. What are some important criteria for analyzing complex systems such as chains?
2. Why can it be useful to divide chain actors into differentiated groups to analyze the system?
3. What are some techniques that permit us to generate a common language and understanding around the chain? What are the advantages and disadvantages of the use of participative tools to this end?
4. What can we better understand by mapping the chain, and what not? Is there additional information that is difficult to capture in this way? Why?
5. Why is understanding the business development services offered along the chain important? What important information can we collect in this area?
6. What can we learn by carrying out a historic analysis of chain development over the last few years? When might this be useful and when not? When is an extensive and formal revision necessary, and when is a rapid analysis sufficient?

Introduction

To reach this stage of the method, potential chains were reviewed and one selected, existing market data organized and complement and a group of strategic chain actors selected and convened. This module explains how to begin the analysis of the chain by forming working groups and the application of some tools: the mapping of the chain , identification of business development services offered, and the construction of a brief history of the chain. Each tool is explained in detail in the following pages. Prior to beginning chain analysis, criteria for the analysis of complex systems should be reviewed and appropriate working groups formed.

Criteria for the Analysis of Complex Systems

The method described in this field guide engages the diverse actors along the chain. Given that each group of actors plays a distinct role in the system, they tend to have different points of view about the limiting factors and opportunities that affect the chain. This diversity is positive, since a chain is a complex system where actors know their part of the system well, but do not necessarily comprehend other aspects or the overall picture. The effective analysis of complex systems requires the application of some simple criteria.

Listen to everyone

Given the diversity of roles along the chain, actors have different points of view. The producers know a lot about what happens on the farms (production difficulties, pests, varieties, yields, etc.), but progressively less as the product leaves their community or goes into processing processes. Actors who are concerned with post harvest processes, equally, know a lot about this theme, but know less about production or marketing. And so it follows with the actors involved in marketing the product or products of the chain; they may have general knowledge about the entire chain but

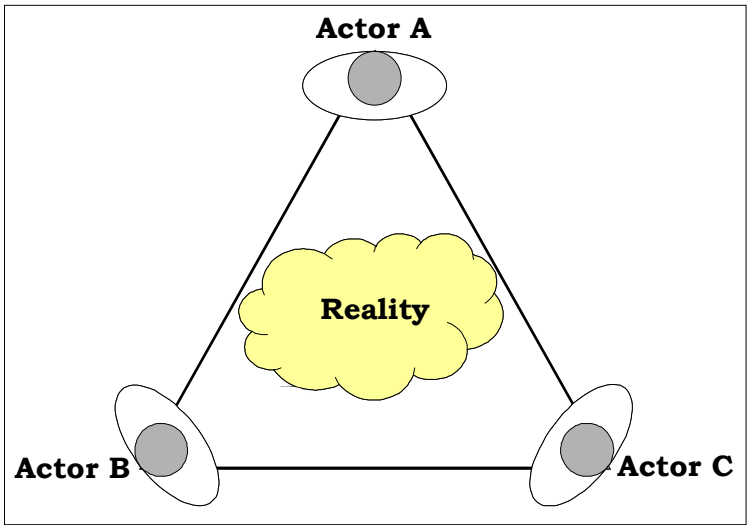
possess more complete and profound information about the aspects that directly concern them. Finally, support actors ought to be knowledgeable, in theory, the entire chain . However, in practice, it is common to find that they also have specific focuses according to their objectives or capacities.[13]

To overcome the compartmentalization of information requires listening attentively to the voices of diverse actors along the chain. All have valuable information about their particular activities and can contribute general data about the whole system. However, no one, including the technical actors, is knowledgeable about the chain in its entirety.

Triangulate the data

If it is accepted that all the actors are partly correct, then a process of triangulation is useful to understand the larger picture of the chain. What is triangulation? It can be understood as a relation between three or more persons who are examining something in particular. Each one can see a part of the object, but not all of it. If we ask them to draw the object, we get three points of view that need to be combined into the full picture of the object. Each one sees the system from their perspective, and therefore can describe what they see or experience, but is partially blind to the realities of the other actors. To have a more complete picture then, all the points of view must be combined—or triangulated—as shown in Figure 6.

Figure 6. Triangulation of data.



In practice, triangulation implies combining and contrasting data from various viewpoints. It is common to find that actors describe diverse issues from their viewpoint, but when these are reviewed, they turn out to be part of the same problem. For example, producers tend to talk of low prices for their products, while processors and traders talk of the problems of quality and continuous supply. All are describing the same problem (lack of information on what to produce, when and how) from their own points of view. When data from diverse actors is compared and contrasted relationships become clear and solutions that benefit the chain as a system, and not a specific group of actors are evident.

[13] For example, many NGOs have an explicit focus towards specific populations (small-scale producers, rural women, youth, indigenous, etc.) or one or other link of the chain (technical assistance or credit in production, access to transformation technology or storage of the product for marketing). The same occurs with informal support actors. The valuable thing about these actors is their profound knowledge of certain aspects of the chain, and their capacities to support it in some way.

Managing power relationships

In a complex system with multiple actors it is common to find unequal power relationships. Some feel comfortable talking to outsiders, and others will not speak more than necessary. Likewise, some actors have formal education, or economic resources, etc. The diverse implications of power in relationships can fill multiple sociological studies, but is also important for a strategy to increase competitiveness.

In chain analysis, technicians and men with a certain degree of formal or informal education speak easily from the start. While these actors may have valuable knowledge to share, they tend to dominate the scene, obscuring the others (persons with little or no education, youth, women, ethnic minorities, etc.). As a result, only part of chain reality is heard. How do we manage these power relations to ensure more equitable participation among diverse chain actors?

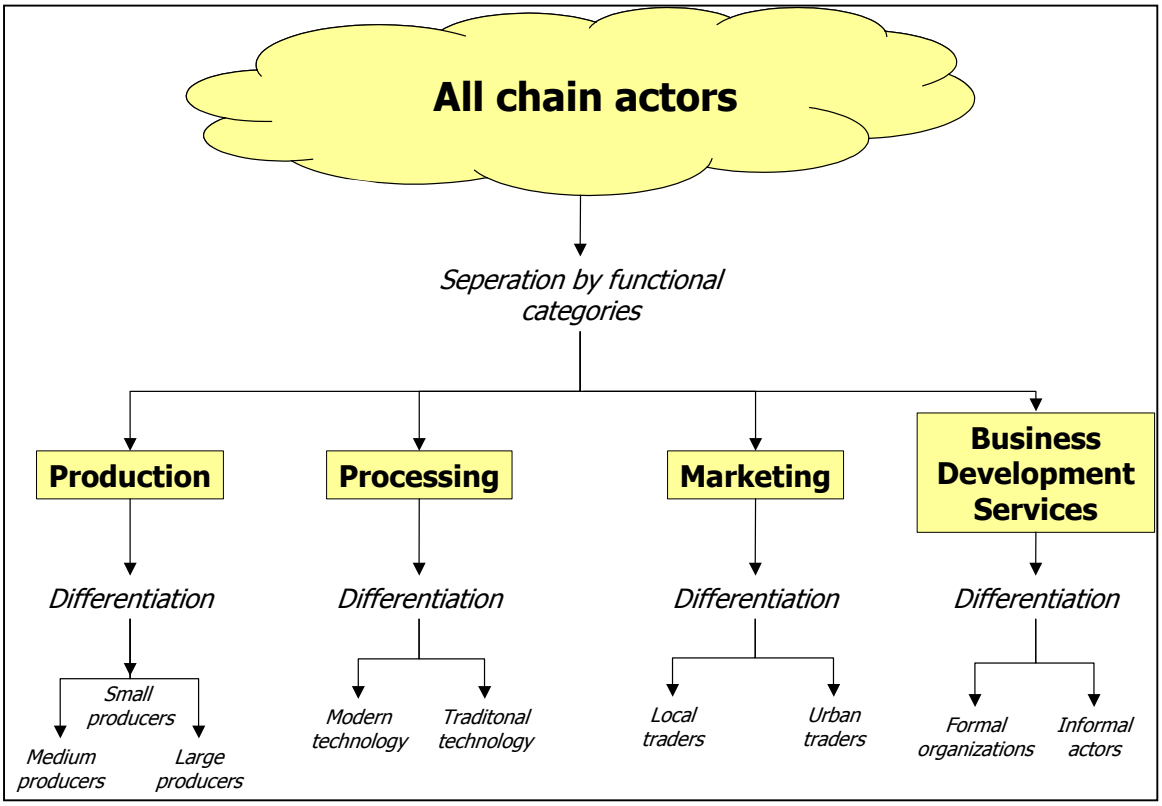
While many methods exist, experience has shown that the formation of separate groups to map the chain, analyze business development services, and review chain history is useful. With separate groups different points of view are heard more clearly, and the final strategy to increase competitiveness will be more complete and firmly grounded. This practice implies separating producers, processors, traders, and those offering business development services into different groups. In addition, if there are important sub-groups within each functional category (as previously identified in Module 6) it may be necessary to have them work separately as well. This is especially important if the strategy focuses on a specific population group (small-scale producers with certain characteristics, groups of women, old or young people, ethnic minorities, etc.), since the problems and solutions analyzed, should correspond to the focal group and not to other actors in the chain.

Formation of Working Groups

Initial working groups are formed based on the functional categories in the chain. Those who are involved in production are grouped, the same as those involved in post harvest management or processing, marketing, and business development services. Once grouped, a decision is made whether the organization of subgroups to capture diverse geographic, social, technological, class, ethnic, age or gender viewpoints is needed. These decisions can be discussed with participants so that all are clear about the different groups and their objectives. Figure 7 shows this process.

Once the working groups are formed, the exercises are explained. When everyone is clear about what to do, each group should work separately on the exercises without the intervention of the other actors. This process is much easier if all the work locations are in the same zone.

Figure 7. Process of forming working groups.



Tools

The tools used for chain analysis are mapping, identification of business development services offered, and chain history. The most important of these are mapping and the identification of supply and demand for business development services. The review chain development is an optional step that provides useful information for analysis. On the following pages, the objective of each tool, time required for its use, necessary materials, steps, facilitating questions, and examples are provided.

Mapping the chain

Objective

Visualize product flows, business development services, and inputs along the chain, from primary production to sale to wholesalers, from diverse points of view.

Time

About 2½ hours in total. One hour for the elaboration of the maps by each group, 1 hour for the socialization and construction of a consolidated map, and one half hour for identifying and filling gaps in the information.

Materials

This exercise can be carried out using flipcharts and markers, blackboards and chalk, or even on the floor with local materials. What is important is to describe the flow of the product in such a way that all the actors can see and discuss it.

Process

Divide the groups by the functional categories of the chain and ask them to draw the chain, as they know it. To begin the visualization, it is a good idea to identify the actors and place them spatially (in their community or city) by functional category. Then, other questions are asked that provide additional details that are added to the basic chain drawn at the start (see below). This exercise could take between 45 and 60 minutes. At the end, each group explains its vision of the chain in plenary, and a more complete vision is completed drawing on all viewpoints. The facilitator of the exercise is responsible for eliciting additional information on key topics (see list below).

Facilitating questions

Some basic facilitating questions for this exercise appear below. However, the facilitating organization is at liberty to change the list according to their needs. We recommend organizing key questions in a guide for those facilitating the group work. Some of these questions can be formulated to start or support the process of visualization, while others are more suited for later stages or for reviewing the final maps, identifying gaps, and complementing the data already generated by the group. The results of the questions should be noted on the map itself or by one of the facilitators of the process in his/her notes. These replies greatly enrich the original map and show participants how much they already know about their chain.

Actors:

- ✓ Who are they?
- ✓ Where are they?
- ✓ What are their functions in the chain?
- ✓ How do they relate to one another? Are relations good, average, or poor? Why?
- ✓ What are their characteristics (gender, class, age, education, abilities, know-how, etc.)?

Markets:

- ✓ Where do we sell what we produce (in each link of the chain)?

Product characteristics:

- ✓ What are the characteristics of the product?
- ✓ What are the volumes of production monthly or annually?
- ✓ How much of the product is sold in the markets monthly or annually?

Costs, yields, and distribution of the chain's value

- ✓ How much does it cost us to produce (in each link of the chain)?[14]
- ✓ What are the buying and selling prices in each stage of the chain? Are they stable during the year, or do they fluctuate?
- ✓ How efficient (yields by area planted, conversion factors, etc.) are the diverse activities in the chain?
- ✓ What is the distribution of the total income from the chain between the actors like? Which groups gain more and which less, and why?[15]

Business development services

- ✓ Who (in each link of the chain) supports us?
- ✓ How do they support us? What services do they offer (in each link of the chain)?
- ✓ What is the quality of the services offered?

Here, care must be taken to visualize the support received by informal actors (intermediaries, moneylenders, etc.) that at times are more effective that that of the other support groups.

[14] Commonly no one has any idea about this, but sometimes one or more producers can provide an approximate idea.

[15] In this part, it is a good to review the role of each group in the chain bearing in mind the risks assumed, value added, and access to information or key contacts.

Rules of the game

- ✓ What is the form of payment in each stage of the chain?
- ✓ What are the quality requirements?
- ✓ What is the buying frequency?
- ✓ How are relations between chain actors? Are they happy with the existing relationships? Why or why not?

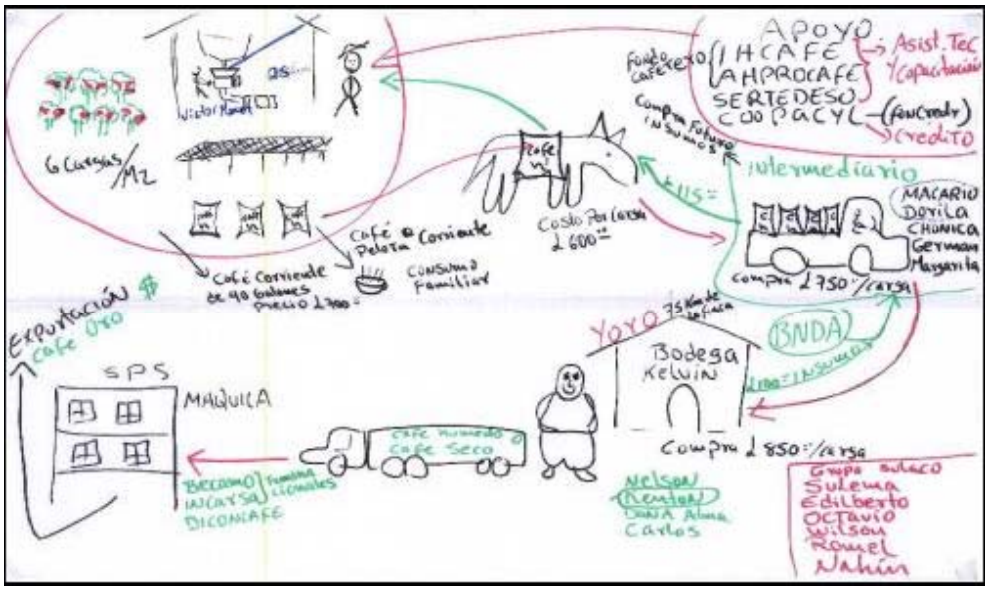
If the facilitating organization has more specific questions, these can be included in the final facilitation tool, making the necessary adaptations so that they are of maximum help in visualizing and understanding the chain. Additional tools can be combined with the mapping exercise to document specific information of interest to the participants and the facilitating organization. One example is that of gender analysis where the relative roles of women, men and children can be analyzed along the chain in the various productive activities. A more complete analysis in this sense could examine not only roles and responsibilities but also access to resources, knowledge and gendered decision-making by chain actors.

If, at the end of the exercise, there are parts of the chain with major gaps, it is probable that we have left out one or more key actors in these functional categories. A strategy to elicit and include their points of view is needed.

Example from Yorito, Honduras

Figure 8 presents an example of a chain map generated by a group of coffee growers in the Municipality of Sulaco, Honduras. The map shows that the producers have a fairly complete vision of the chain (covering functions from production to export), and that they have managed to identify most of the actors. When examined in greater detail, however, it is clear that most of the information on the map relates to the relationship between the producers and one large regional trader. Details about what happens in the chain between Yoro and product export are less clear.

Figure 8. Map of the coffee chain, Municipality of Sulaco, Honduras.



Source: Producers of Sulaco, Strategy to Increase Competitiveness of Coffee Workshop, 2000.

An important aspect that does not appear to be set down on the map is the question of quality. In this case, the importance of quality was raised in the map interview done by the facilitator. In this example, traders, exporting firms and support organizations did not participate actively. As a result, gaps remain that must be filled through workshops, focal groups, or semi-structured interviews with the missing actors.

Production and transformation
The map gives information about the production system at the farm level in the Municipality of Sulaco. Here, we can see the average production per *manzana*[16] of land, the cost of depulping the coffee (2.5 Lempiras[17] per liter of coffee), and the use of the final product.

In the map interview, what gaps need to be clarified?

- ✓ Production costs
- ✓ Existence of depulping machined in the zone (Do people usually pay for this service?)
- ✓ Number of coffee farms in the zone, total hectares in production (approximately) or volume of coffee produced.

Sometimes it is easier to find this data with intermediaries who, for example, have good knowledge of production volumes, or with support organizations that manage more formal data such as extension, yields, and average costs.

Nevertheless, it is important to ascertain what producers know about the activity since these data tend to be more accurate and up to date than most "official" figures.

Marketing
The map helps us appreciate Sulaco's system of coffee marketing. The data included are: (a) price of production per load of coffee, (b) traders' purchase price, (c) names of local traders with an indication of which ones are most important, (d) sales price to regional traders, (e) names of regional traders with an indication of which is the most important, (f) final destination of the coffee – San Pedro Sula, and (g) names of the export firms known by producers.

This exercise provides key information to plan future research activities, such as semi-structured interviews with the local and regional traders and visits to export firms in San Pedro Sula.

What are the gaps in this information that must be filled?

- ✓ Prices between Yoro and the export firms and the price of Honduran coffee in international markets.
- ✓ The use of "futures" by local traders to guarantee volume at favorable prices. Who provides the funding for this? Local traders or regional traders? What are the advantages or disadvantages of this system for the actors involved?
- ✓ The support lent by intermediaries to producers (services provided, costs, volumes, and frequency)

Support system
It is interesting to note that the support system, both formal and informal, appears clearly defined. In this case, producers receive formal assistance (technical assistance, training, and some credit)

[16] A *manzana* of land is equivalent to about 80 m^2.
[17] US$1 is equivalent to 18.2 Honduran Lempiras.

from public and private firms (see Figure 8 top right-hand corner), while business support (marketing, transport, inputs, and advances of working capital through future purchases) come from traders.

In the case of the traders, a more complex, two-way relationship is shown, than with support organizations. In this space, what data are missing?

- ✓ Information on the actual relationships between traders and producers. Is it a stable relationship, or do producers feel exploited? What is the real flow of funds like in this relationship? The trader advances resources, but what is the final cost of these resources for the producer?
- ✓ More details on the relations between local and regional traders. As well as buying the coffee, what role does the regional trader play?
- ✓ More information on the business development services provided by support organizations. Are they efficient, of good quality, sufficient? Does everyone have access to these services? Do they respond to producers' needs?

It is interesting to note the map was generated in a relatively short amount of time (less than 1 hour) by a group of small-scale producers. At the same time, other, less complete maps were generated by other groups. After reviewing all maps, it was decided to use this one as the base map for the analysis of the coffee chain in Yorito and Sulaco. Another interesting point is the level of detail (names, for example) that appears for the informal actors. This contact information is of great use to identify key sources of information for follow-up work.

Provision of Business Development Services

Objective

To make a simple list of business development services that exist along the chain and to qualify their quality and identify gaps susceptible to future improvements.

Time

About 2 hours in total; 1 hour for identifying, describing, and qualifying the services by functional category, and another hour for socializing the results and comparing them amongst the groups.

Materials

This exercise can be done using flipcharts and markers, blackboards and chalk, or even on the floor with local materials. What is important is to describe the services supplied and received in such a way that all the actors can see and discuss them.

Process

Continuing with the same groups used for mapping, proceed examine supply and demand of formal and informal business development services in each function of the chain. The groups of producers, processors, and traders analyze their respective links based on results of the mapping, while the business development service providers look specifically at the services they supply. After about 1 hour of working in groups, results are revised in a plenary session, and matrices are generated of supply and demand in each functional category.

It is important to make a special effort to include informal service suppliers since they are more difficult to identify. Examples of informal suppliers of services include: farmer extensionists or smallholders with additional knowledge on production themes; metalworking shops that make or repair agricultural or simple processing machinery; workshops that rent out machinery for

processing; transporters; traders; moneylenders, among many others. Emphasis is placed on informal suppliers business development services because: (a) they exist in almost all chains; (b) their services tend to be more sustainable that those supplied by formal actors; (c) their costs are lower; and (d) they make most of the chains work.

Facilitating questions
The basic questions for facilitating this exercise with the groups of producers, processors, and traders are:

- Who supplies services to this link in the chain?
- What services are supplied?
- What cost does this service have?
- How useful is this service? Does it solve your problem?

The results can be organized in the following matrix (Table 9).

Table 9. Matrix of the analysis of services received (by clients).

Service by link of the chain	Supplier	Cost	Benefit (recipient perspective)	Comments
Production Processing Marketing Organization	Who supplies the service	Paid for the service in cash or kind	☺ High utility 😐 Medium utility ☹ Low utility	Additional information about each service

In the case of suppliers of the service, useful questions include:

- What services are supplied to each link in the chain (production, post harvest, processing, marketing, business organization)?
- Who are the clients of the service?
- What portion of the service cost does the service client cover? What portion is covered by other sources (donor or state subsidy)?
- How effective is the service? Does it manage to solve the problems of the client?
- How much does it cost to supply the service?

Results can be organized in a matrix such as the one shown below (Table 10).

Table 10. Matrix of analysis of the services supplied (by service providers).

Service by link of the chain	Clients	Cost	Benefit (supplier perspective)	Comments
Production Processing Marketing Organization	To whom is the service directed	Paid by the service in cash or kind	☺ High utility 😐 Medium utility ☹ Low utility	Include total costs of services

Once the services supply and demand has been identified, a simple review can be made in plenary session to see if there is agreement between the services noted by the clients (producers, processors, and traders) and the organizations supplying the services. Often, this revision

generates interesting discussions, given that services appear that were unknown up till now or that the evaluation of quality varies substantially.

Example from Guamote, Ecuador[18]

This methodology was applied to a dairy chain in the Municipality of Guamote, Ecuador, with the following results (Tables 11 and 12).

Table 11. Example of services received in Guamote.

Service	Who offers it[a]	Cost	Benefit	Comments
Production				
Veterinary	Private individuals	Warehouse discount 30% to 40% of the cost of medicines	☺	
	Expert farmers		☺	
	Rural Action	None	☹	
	MAG-CONEFA	Fuel	☺	Never arrives on time
	CDL	None		
Credit	FEPP Acción Rural	22% No data	😐	Very expensive
Inputs	Shops Acción Rural	Varied No data	☹	Expensive

a. MAG-CONEFA, Ministerio de Agricultura-Comisión Nacional de Erradicación de la Fiebre Aftosa; CDL, Comité de Desarrollo Local; FEPP, Fondo Ecuatoriano Popularum Progressio.

Table 12. Example of services supplied in Guamote by supplier.

Service	Whom for	Costs	Benefits	Observations
Credit	Rural and urban marginal producers	18 - 21.7 %	☺	Individuals, associations, Funds.
Cattle ranching technical assistance	Milk producers Credit Fund Acción Rural Without credit Acción Rural • A-R partners • Non partners	US$6.00 Extra visit $1.70 US$1.70 + Product US$2.00 + Product	☺ ☺	2 visits + products 1 cow Great demand
Storage	All those interested	Same as Riobamba Cheaper than Riobamba		Non partners Partners
Training in livestock mgt.	Livestock owners	US$0.25 / person	☺	Minimum 15 persons
Training in milk management	Milk suppliers of the consortium	US$5.00	☺	5 days Real cost US$12.0
Training in milk processing	Cheese makers' consortium	US$15.0	☺	15 days Real cost US$36.0 per person
Follow-up in milk processing	Trained cheese makers Partners Non partners	 $1.70 $2.00	No data	Being started

When the tables of clients and service providers were compared a long discussion ensued, as the client groups lists included of the services provided by local NGOs. At the end of the process, it was established that the promotion of existing services was deficient and that few milk and

[18] For a complete version of the application of this methodology in Guamote, Ecuador, and an extensive discussion on the theme of local business development services, see the document: IICA-CIAT-COSUDE-MCCH (2001). Los servicios locales: Un desafio del desarrollo rural. Available in: http://www.ciat.cgiar.org/agroempresas/espanol/inicio.html

cheese producers where aware of their existence. Through this process, a simple, rapid, and cheap way to improve service quality was identified: more effective service promotion.

A second result was that best evaluated services were those that were fee-based. Although the full example is not shown here, it was clear that the services best reviewed by the clients were paid services, while free services were not well accepted.

Chain history

Objective

To identify key moments in the chain's evolution, positive and negative aspects and lessons learned. This can be applied generally (key milestones of the chain), or with an emphasis on previous projects or support received by the chain.

Time

About 1 hour in total.

Materials

This exercise can be carried out using flipcharts and markers, blackboards and chalk, or even the floor with local materials. What is important is to describe the history in such a way that all the actors can see and discuss it.

Process

Using the same groups from the mapping exercise, proceed to define key dates in the chain's evolution. Start with a brainstorming session to identify key moments, clarify each one and organize them chronologically. Build a timeline as a column, and proceed to identify additional information on each event and evaluate lessons learned. The exercise ends with a socialization of the results between the groups, and clarification of gaps. After this workshop, the facilitating organization will mould all the timelines into a single one.

Facilitating questions

The facilitating questions for the timeline are:

- ✓ What have been key events in the chain's evolution during in the last ten years? In what year did each one occur?
- ✓ Who participated in this event? What were their roles?
- ✓ Was there external support during this time? Who facilitated it?
- ✓ What was good about this event?
- ✓ What was negative about this event?
- ✓ What did we learn from this event?

If the facilitating organization wants to focus this exercise towards specific themes, such as the evolution of the technology used in the chain, the arrival of new products, local innovations, or others, the tool can be adapted to such ends. An example of a chain history is presented below.

Chain history example from CIPASLA, Cauca, Colombia

The following example (Table 13) is from a dairy products chain in Cauca, Colombia. In this case, the tool was applied to a producers' association within the chain to facilitate a process of reflection on its evolution and growth and motivate to continue with future activities.

Table 13. Example of the timeline of the Asociación de Empresarios Agroindustriales de la Sub-Cuenca del Río Cabuyal (ASERCA), Colombia.

Year	Event	Which of us participated	Who supported us[a]	Evaluation		
				The good	The bad	What we learned
1994	Congreso Internacional de leche – Medellín	2 milk producers	CIAT, CIPASLA	Idea of organizing ourselves	-	-
1994	Launching the idea, survey of producers	CIPASLA	CIPASLA	Knowing production dates and options	-	-
1994	Trip to La Arboleda	Producers	FIDAR	-	-	Organizing process of the group, how to organize a milk products plant
1995	Training in the milk business	Producers	FIDAR, CIPASLA	-	-	Everything related with milk processing
1995	Organization of the group, buying of equipment	Producers	FIDAR, FES	-	-	Importance of organization, practice in processing
1996	Buying of lot, construction and organization of the business	Producers	CIPASLA, PRODAR, DRI, ECONORCA, CETEC	-	Not coordinated with public health	How to manage resources Projects can carry on when organized
1997	Inauguration of the plant	Partners	SENA, FIDAR, CIPASLA	The plant	-	Achieve the proposed objective
1997-99	Independence of the plant	Partners, Board of Management	Jairo Balanta (paid by partners), CIPASLA – AIR	Know that it can be done	Organization (sense of relevance) and Board of Management (low profile)	Despite setbacks, we have made real progress
1999	Market study and sanitary registration transaction (in process)	-	CIPASLA – AIR	-	-	-

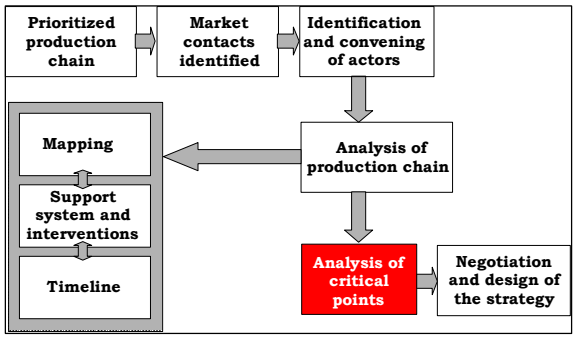
Source: Workshop Formulación de Estrategia de Competitividad para Lácteos, Asociación de Empresarios Agroindustriales de la Sub-Cuenca del Río Cabuyal (ASERCA), 1999.

a. CIAT, Centro Internacional de Agricultura Tropical; CIPASLA, Consorcio Interinstitucional para una Agricultura Sostenible en Laderas; FIDAR, Fundación para la Investigación y el Desarrollo Agroindustrial Rural; FES, Fundación para la Educación Superior; PRODAR, Programa Cooperativa de Desarrollo Agroindustrial Rural; DRI, Fondo de Desarrollo Rural Integrado; ECONORCA, Empresa Cooperativa del Norte del Cauca; CETEC, Corporacíon para Estudios Interdisciplinarios y Asesorías Técnicas; SENA, Servicio Nacional de Aprendizaje; AIR, Agro-Industrial Rural committee of CIPASLA.

Another variation on the chain history exercise is one focused on local processes of innovation to support the chain or generate new products. If these processes are investigated, it is important to include a space to note the sources of the innovation(s), their channels of dissemination, and the results they have had in the chain. Actors identified in this way are key when new changes in the chain are proposed later in the analysis process.

In this module, we have discussed how to form working groups and three tools for chain analysis: mapping; supply and demand of business development services; and a chain history Together, these tools permit a first analysis of the chain and prepare us for the next step, which is the identification and analysis of factors limiting the chain's competitiveness, and possible solutions.

Module 8
Analysis of Critical Points



Guiding questions

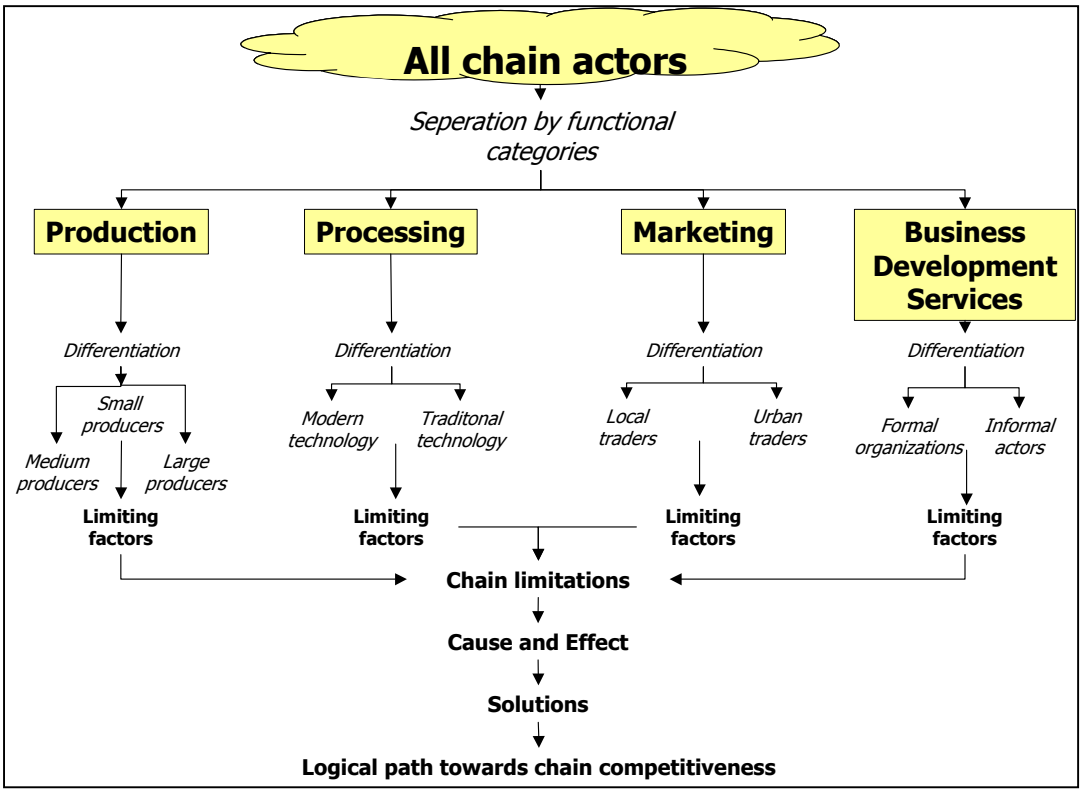
1. How can we identify the critical points that limit a chain's development?
2. Is differentiating chain actors and their opinions valid when we seek to identify the critical points? Why, or why not?
3. If we identify differentiated critical points with chain actors, how can we connect them later in the analysis?
4. Why is it important to identify not only the critical points, but also their causes and effects on the chain?
5. Is it possible to connect various critical points along the chain?
6. Once the critical points are identified, how can we use them to plan processes of innovation and chain development?
7. Can we find critical points that influence the chain more than others? What would happen if they were resolved? Could strategies to resolve these especially critical points lead to dramatic increases in chain competitiveness?

Introduction

At the end of Module 7, we visualized the chain including actors and their locations, the flow of the products, inputs and business development services between them and final markets. Based on this exercises, the present Module will explain how to pin point critical points where the chain faces internal or external limitations, how to analyze the causes and effects of these limitations, how to identify solutions for these bottlenecks, how to compare the chain with the competition and finally how to design a logical path towards increased chain competitiveness.

All exercises described in this Module will be carried out by groups of strategic actors previously identified by functional categories along the chain (see Modules 6 and 7 for more information on the selection of strategic actors). Below, we explain how to identify factors limiting competitiveness, how to analyze their causes and effects, and a way of translating limitations into opportunities. The process is explained graphically in Figure 9.

Figure 9. Analysis of critical points.



Identification of Limiting Factors

This tool has two steps: (1) a brainstorming session focused on identifying existing limits in the system, both internal and external, and (2) the selection of the most critical limitations. This exercise is carried actors grouped by functional category followed by a plenary session to share the results.

Brainstorming session

First, ask the group to identify the limits that they see as important in the chain. Each idea should be written on a card according to the following rules: (a) one idea per card, (b) not more than three lines long, and (c) in big letters so that everyone can see. In groups where level of schooling is limited, drawings representing ideas can be used.

Once the ideas have been collected and put on the cards (leave 15 to 20 minutes for this exercise), clarify ideas and find out if the card effectively conveys the idea of the author. At this time, similar ideas are put together in groups of cards. Once ideas are grouped, define the central ideas of the group in one phrase on a different colored card. This summary card is placed on top of the group of individual cards so that everyone can review whether or not the key ideas have been captured. At the end of this process (of 15 to 30 minutes), the final cards are placed on the wall where all participants can see them and read them out loud (see below for example).

Access to funds *(credit for working capital and credit)*	Access to inputs *(Lower production costs)*
Training and technical assistance *(in production)*	Improvement of breed
Improvement of pastures	Marketing

Prioritization of limitations

There are various ways of arranging the identified problems. If the group is relatively homogeneous in terms of participation (no single person dominates the group), and if it has a limited number of problems (8 maximum), the double-entry matrix tool described below can be used. If there is a marked tendency for one or more persons to influence the decisions of the group, or a large number of problems, it is better to opt for a secret vote to capture more clearly the opinion of the group and not just that of the most vocal members.

Pair wise ranking

A pair wise ranking process uses a matrix where the identified problems are placed in identical rows and columns as seen in the following example (see Table 14).

Table 14. Incomplete example of a pair wise ranking exercise.

Problems	Access to funds	Access to inputs	Training and technical assistance	Improvement of breed	Pastures	Marketing
Access to funds						
Access to inputs						
Training and technical assistance						
Improvement of breeds						
Pastures						
Marketing						

Based on this example, work proceeds in the following fashion: (1) identical themes are not compared (financial against financial, for example) and each pair will be compared once only (for this reason only half will be filled in); (2) the facilitator asks, "between access to funds and access to inputs, which should be solved first?; (3) the group discusses the question in an attempt to reach a consensus; (4) the answer is written on the card and the group proceeds to the next pair of problems; (5) notes should be taken on the rationale behind the decision (why are pastures more critical than access to funds, for example). The logic behind the decisions is sometimes more illustrative than the decision itself. Depending on the group, this exercise takes between 30 and 45 minutes.

At the end of the exercise you should have something similar to the following matrix (Table 15).

Table 15. Complete example of a pair wise ranking exercise.

Problems	***Access to funds***	***Access to inputs***	***Training and technical assistance (TA)***	***Improvement of breeds***	***Pastures***	***Marketing***
Access to funds		*Funds*	*Training*	*Funds*	*Pastures*	*Marketing*
Access to inputs			*Training*	*Improvement of breeds*	*Pastures*	*Marketing*
Training and TA				*Training*	*Training*	*Training*
Improvement of breeds					*Pastures*	*Marketing*
Pastures						*Marketing*
Marketing						

Next, each factor is scored based on the number of times it appears and assigning an order of priority according to this frequency. To clarify, explain to the participants that the votes received by each limitation will be counted, and thus determine what factor is the most urgent to resolve.

Table 16 shows the results of this scoring for the example being developed.

Table 16. Final ranking of limitations

Limitations	Frequency	Order of priority	Observations
Training and technical assistance	5	1	*Notes on why each decision was made.*
Marketing	4	2	
Pastures	3	3	
Financial	2	4	
Improvement of breeds	1	5	
Purchase of inputs	0	6	

Consolidation of limitations

Once the factors are ranked by each group of actors, the results are shared in a plenary session. Each group explains its final ranking results focusing on the rationale behind their decisions and why one factor is more important than the others. The facilitators should note limitations that are similar across groups even if they use different terms to describe basically the same problem. If doubts or inconsistencies exist among the results, they can be clarified at this time.

At the end of the socialization process a consolidated list of limiting factors is generated. At this time, similar or related limitations are grouped as in the brainstorming exercise. The rank assigned to each limitation by each group is also noted as shown in Table 16.

It is common for groups to rank limiting factors that are exclusive to them highly. Despite this, the facilitators should focus on identifying limitations that are valid along the whole chain —such as marketing in the previous example—to highlight the relations between limiting factors in each link and the overall competitiveness of the chain. At this point it is useful to refer to the chain map and review which of the ranked limitations have causes and effects in more than one link.

Table 16. Example of a consolidation of limitations in a chain.

Limitations	Order of importance for each group		
	Producers	Processors	Support system
Training and technical assistance for milk production	1	-	6
Marketing (publicity, presentation, transport, suitability of sales points)	2	1	3
Pasture improvement (low yields)	3	-	8
Access to working capital and credit	4	-	4
Improvement of breeds (low performance)	5	-	8
Cost of inputs	6	-	-
Training and technical assistance in processing milk products	-	2	9
Weak organization and lack of internal regulations	-	3	1
Need to construct new infrastructure for the processing plant	-	4	-
Management of processing subproducts (whey and cream)	-	5	-
Requirements of team and machinery	-	6	-
Business capacity	-	-	2
Legal limitations	-	-	5
Deficient quality control	-	-	7

Source: Workshop Formulación de Estrategia de Competitividad para Lácteos, Asociación de Empresarios Agroindustriales de la Sub-Cuenca del Río Cabuya (ASERCA), 1999.

Following this exercise, the most common or strategic limitations are identified amongst all the actors, to be analyzed in more detail. The identification of common limitations is done by comparing the prioritized lists and seeking similar or related themes among the actors (the marketing example noted previously). In the case of strategic limitations, a wider discussion on chain competitiveness is facilitated to identify the causes of the common limitations. This second process becomes easier as causes and effects of each limitation are analyzed as described in the following section.

We recommend selecting between three and five common or strategic limitations to analyze. It is normal to find that many of the other limitations ranked by the different actors appear as causes or effects of one or more of the strategic limitations. By seeking common limitations to analyze, the focus of the group is squarely centered on finding solutions that benefit most actors, generate positive synergies along the chain and help solve other, minor limitations that are specific to each functional category.

Analysis of Cause and Effect

As a result of the ranking exercises, a list of limitations is generated to analyze in greater detail. This list must be manageable (a maximum of five is a good rule of thumb), respond to the concerns of the actors, and should contain limitations whose solution generates benefits for more than one group of actors in the chain. The common limitations can be worked on first among the actors, followed by those that have been identified as strategic among all participants. As the analysis of causes and effects advances, the multiple relationships between limitations will become clear (for example, some limitations are causes or effects of others) so that it is hardly ever necessary to work with more than five limitations.

This analysis is carried out using the technique of problems trees.

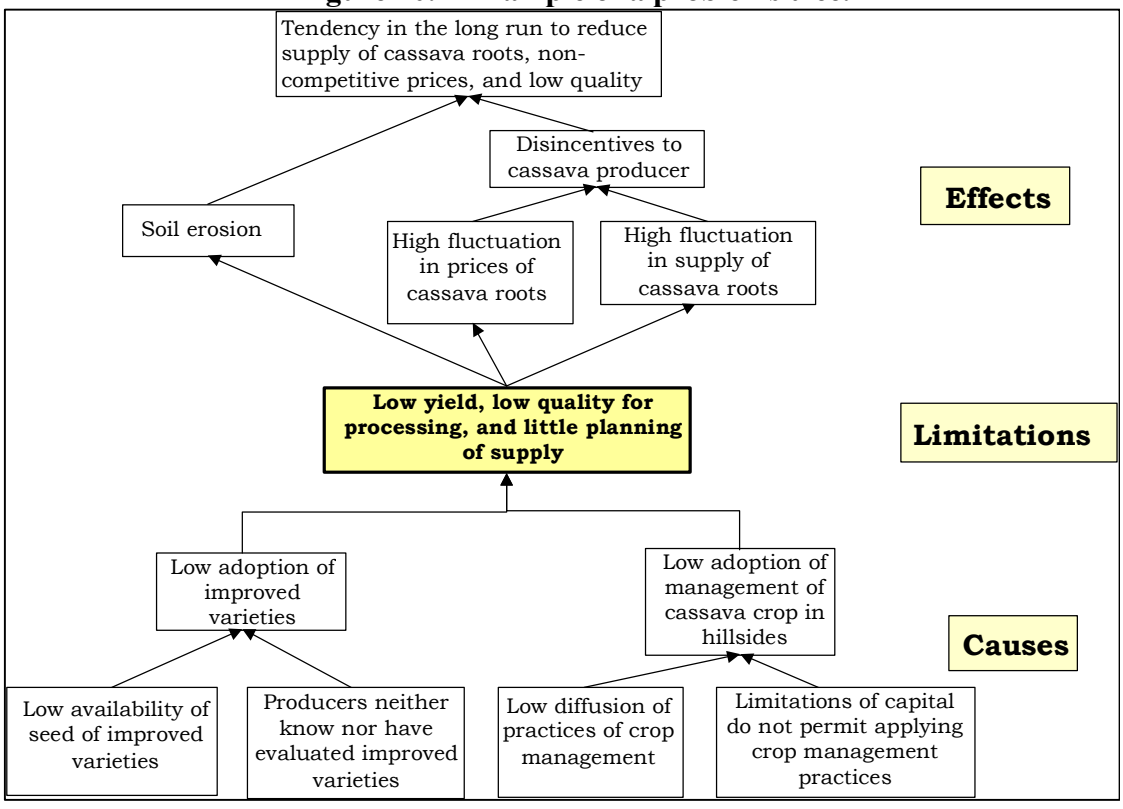
Problems trees to analyze limitations

A problem tree (or cause and effect analysis) includes the following steps:

1. Put the selected limitation half way down the workspace (paper, wall, floor), explaining clearly to participants the reasons why it was selected. Care must be taken in explaining the problem clearly – and achieving a consensus on this – since the validity of the analysis depends on a common understanding of the problem.
2. Ask participants about the causes. Questions should be structured in the following way: Why are there low yields, poor quality, and little supply planning of cassava roots? Each time that participants reply, the idea should be noted on the card and placed underneath the initial problem. Once the card is placed, the question is repeated – Why? – and the answer noted on the new card. The objective is to generate chains of causality to understand not only the central, visible problem, but also its causes. It is important to discuss and clarify as much as possible the diverse causes of each problem, and the relationships between problems. Normally, analysis is continued to the second level of causality, although this work can extend – or deepen – greater analysis of a particular point merits.
3. Once the causes of the limitation are analyzed, the facilitator initiates the analysis of the effects using the phrase: What are the effects or results of this limitation? The effects analysis then follows the same logic as described above. For effects, analysis is also carried through to the second level of effects. If the facilitator wishes to analyze the links between the limitation and wider themes – livelihoods, for example – the analysis can be amplified further.

At the end of the exercise a much clearer idea should be held about the real causes of the problems, their effects, and how to enter to improve the situation, as shown in Figure 10.

Figure 10. Example of a problems tree.



Once relevant problems trees have been defined for the selected limitations, the next step is to identify the relationships between limitations. As noted previously, it is common to find that some limitations are in fact causes or effects of others.

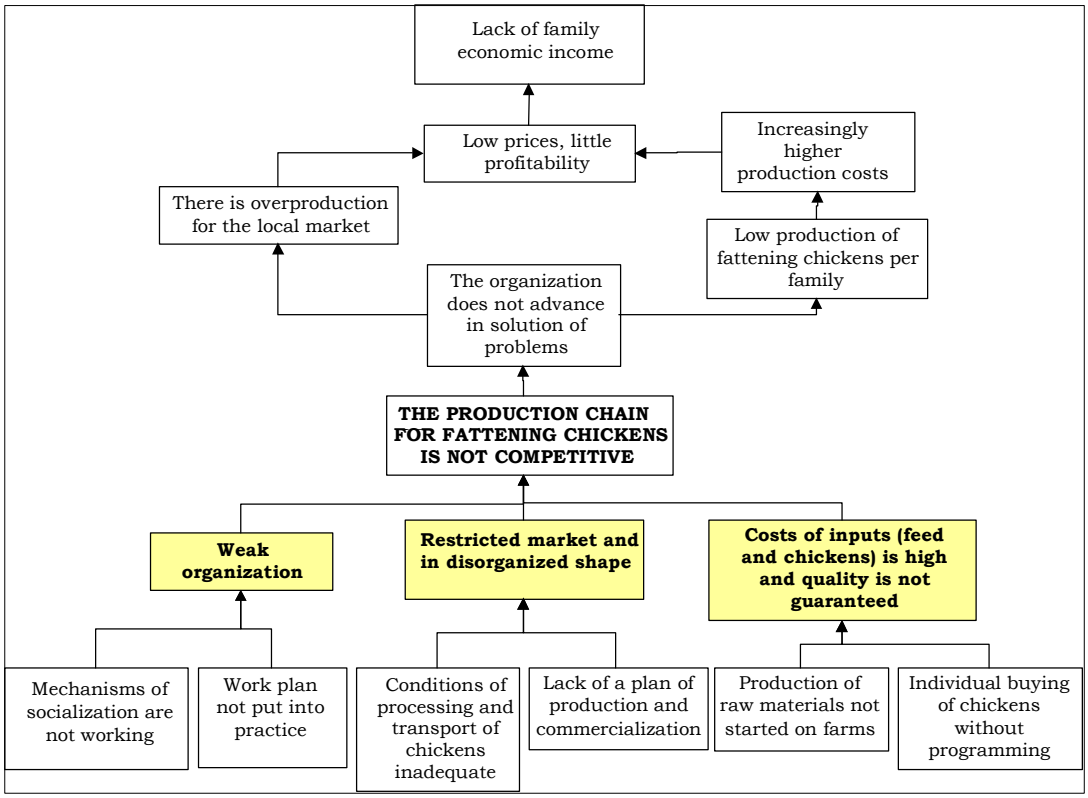
General problems tree for the chain

Based on the problems trees for selected limitations, a general tree is constructed to represent the difficulties facing the chain at the time of analysis. The level of detail in this final tree can be less than in the specific trees. The goal is to link all the trees in a logical fashion. Normally, the sum of chain limitations adds up to low levels of competitiveness but on occasions some limitations may actually be effects of others.

When constructing an overall cause and effect analysis for the chain, facilitators must clearly identify the logical relations between causes and effects that appear in the tree. Equally, it is important to review the relations between levels of causes and effects so that the more profound causes are clearly related, and if possible causally linked, with the identified limitations. If this process is carried out effectively, it provides a solid starting point to identify possible solutions to the chain's limitations.

Figure 11 shows an example of a general problems tree for a chain. The limitations in yellow are those that were analyzed in the specific trees.

Figure 11. Example of a general problem tree for a chain.

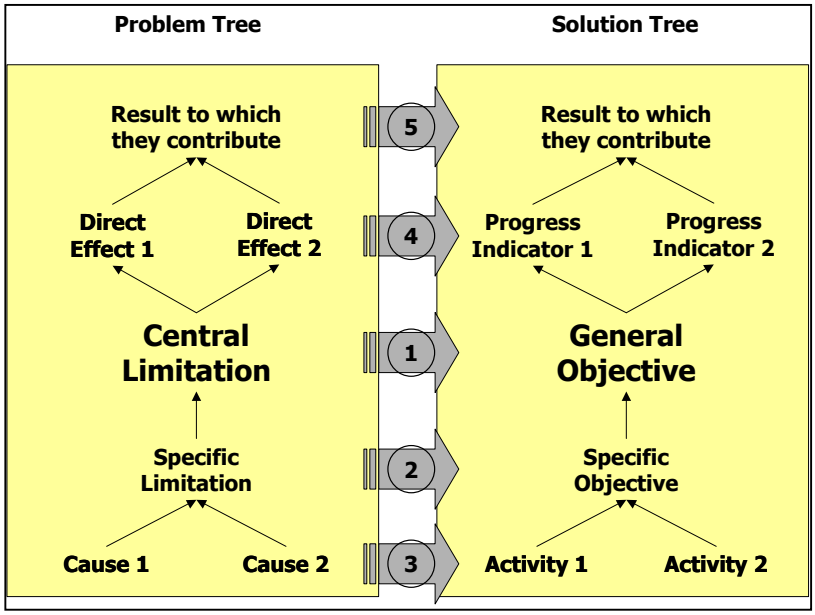


This analysis clearly identified the principal causes of the chain's low competitiveness and the effects of this on producer livelihoods. In this case, the problem tree was generated by chicken producers, and thus reflects their viewpoint more than that of the chain's other members.

From limitations to solutions

In addition to providing a more profound understanding of a chain's problematic, problem trees can be useful for identifying possible solutions. Causes can be translated into objectives or activities of a project with the central limitation as the general objective, while effects become either indicators of progress or impact. Figure 12 explains this process.

Figure 12. Using the problems tree to identify solutions.

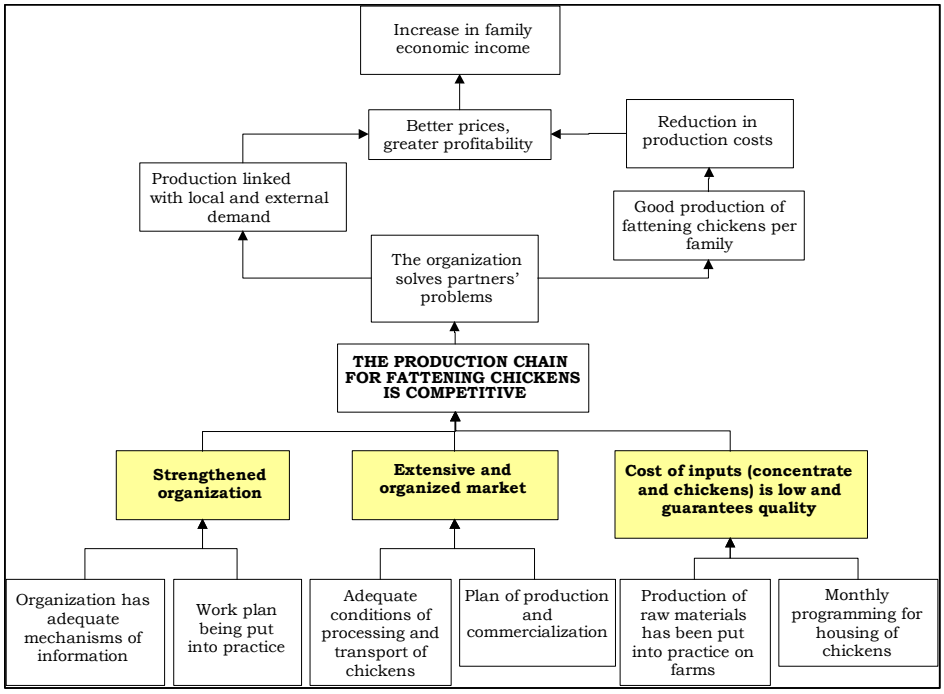


If the problem tree has been carefully elaborated – with clear logical links between the different levels – this process should be relatively simple. If it is difficult to translate problems into objectives, the tree's logic should be revised to find gaps or inconsistencies.

To facilitate this exercise, ask the participants to put the negative points in the problems tree into a positive expression that is placed in the solution tree. It is easier to begin with the central limitation and move downwards (that is to say, change the causes into specific objectives or into activities), and then repeat the process upwards translating direct effects into progress and impact indicators. Given that most chains contribute to economic aspects of livelihoods, it is difficult to maintain total causality at this step. If we to know specifically how much a chain contributes to a particular livelihood strategy, this requires further analysis with chain participants and the use of complementary livelihood analysis tools.

Figure 13 shows the objectives tree that emerges from the problem tree example shown previously.

Figure 13. Example of a solution tree.



Source: Proyectos Productivos Integrados (PPI) of rural chickens, Asociación de Productores y Expendidores de Pollos del Norte de Cauca (ASOPROEX), and Corporacíon para Estudios Interdisciplinarios y Asesorías Técnicas (CETEC), Colombia, 2001.

Comparing the chain to the competition

Prior to designing a strategy to increase competitiveness, it is useful to compare key competitive aspects of the chain with other chains with similar products. This process is known as benchmarking. The chains selected for comparison may be direct competitors – i.e. in the same markets or market segments – or indirect competitors – i.e. in other markets or market segments. If a related chain serving a more attractive market segment can be found, this is a good point of reference as it can show chain actors how close or far they are from being able to enter a potentially more lucrative market segment. If no such chain exists, comparing key competitive variables with the direct competition is useful.

Key competitive variables to keep in mind for this analysis include[19]:

- ✓ Access to key markets (distance, road links, communication)
- ✓ Product quality
- ✓ Product quantity
- ✓ Productivity and technology employed
- ✓ Production costs or sales price
- ✓ Product presentation or packaging
- ✓ Distribution channels
- ✓ Production peaks and shortages through-out the year
- ✓ Brand or product image
- ✓ Associated services

[19]. Adapted from: RURALTER, 2004. Guía Metodológica para el análisis de cadenas productivas. Mesa de trabajo "Desarrollo Económico" de la plataforma RURALTER. Quito, Ecuador, Marzo. Page 57.

Information for the exercise is best gathered by organizing cross-visits to competing chains by the chain actors. Prior to these visits, the chain actors should develop simple questionnaires that allow them to quickly gather impressions on key competitive variables in a systematic fashion. At the end of the visit, a short meeting to document and share the findings should be held. Information obtained can be organized in a simple table as shown in Table 17.

Table 17. Simple Benchmarking Table.

Competitive variables	Current situation in our chain	Competing Chain 1	Competing Chain 2
Market access			
Product quality			
Product quantity			
Productivity and technology employed			
Production costs / sales price			
Product presentation			
Distribution channels			
Production peaks or valleys			
Brand or product image			
Associated services			

INSERT FUTURE PROSPECTIVE/SCENARIO SECTION HERE – PPP PROJECT METHOD, MVG

Designing a Logical Path to Increase Competitiveness

With a general solution tree, a simple benchmarking exercise and a brief prospective analysis for a chain ready we can advance to the design of a strategy to increase competitiveness. A useful first step at this stage is the design of a logical path. A logical path is nothing more than the organization of the specific objectives in chronological order, plus the definition of a common vision of the future for the chain. Why is this step important? Principally because one or more of the specific objectives facilitates, drives or is a prerequisite for other more complex changes planned for the chain. A logical path helps build consensus on where to focus limited resources to achieve the greatest possible impact in the shortest amount of time.

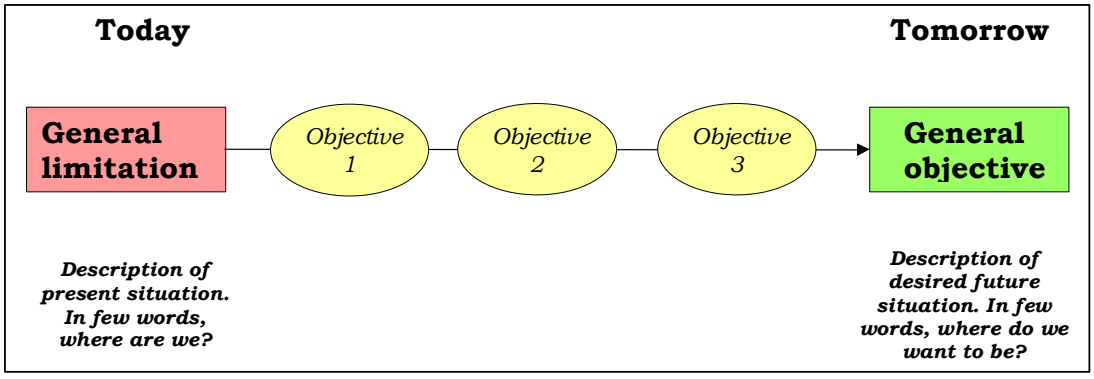
The facilitation of the process is an exercise in logic. Based on the general solution tree, the general objective is defined and the specific objectives are placed on cards and read out to remind all participants of them. Next, the central limitation is placed at the left end of the workspace and the general objective at the right thus showing both where we are and where we hope to end up. The participants are then asked to define in few words both extremes bearing in mind the results of the benchmarking study and the selected future scenario. How can we describe our current situation? How can we describe where we hope to arrive? These ideas are noted on cards and placed below each extreme. At this point, it is recommendable to focus more on the right-hand extreme—commonly known as the vision—to clearly define a desired future for the chain. The vision can be a few lines or a paragraph, what is important is to pick up the feelings of the participants, place them in a concrete timeframe (within 5 years, for example), and define measurable or verifiable changes. Depending on the size of the group, it can be useful to work

initially in subgroups, with each subgroup responsible for generating some words or short key phrases for the chain's future. Then the facilitators collect all the contributions and construct a shared future vision.

Once the two extremes are clear, the specific objectives from the objective tree are reviewed to identify a logical order for their implementation. Facilitators can use phrases such as, "starting from where we are now we hope to reach our desired future in 5 years by achieving the following objectives, which one or ones come first? Is there one objective or several whose achievement would leverage important changes in the others? Are there objectives that depend on others? Where do we begin, and why? These questions tend to generate debate amongst the participants. In CIAT's experience, at the end of the debate one or two objectives with the potential to catalyze change tend to emerge. These specific objectives are placed a little to the right of the central limitation previously identified.

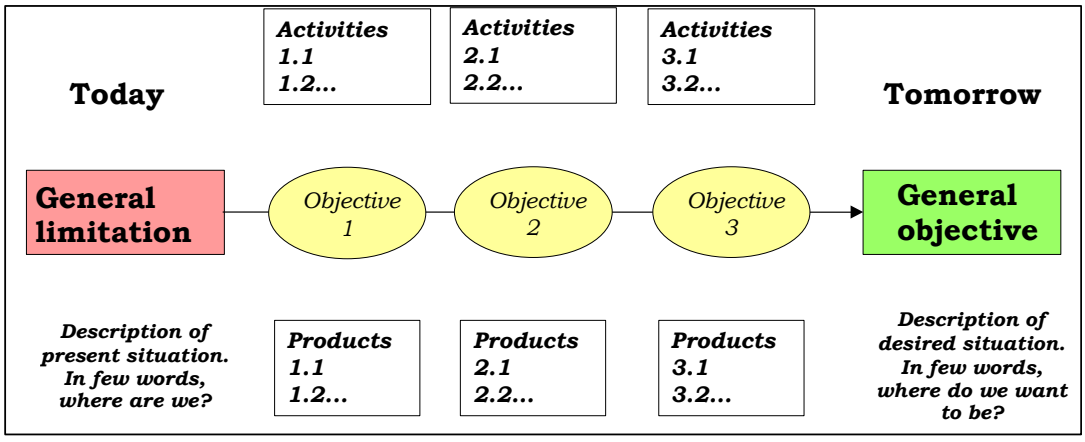
The process continues with the placement of the other specific objective in a logical pattern flowing from right to left until all the specific objectives have been placed between the two ends, as shown in Figure 14.

Figure 14. Definition of a logical path.



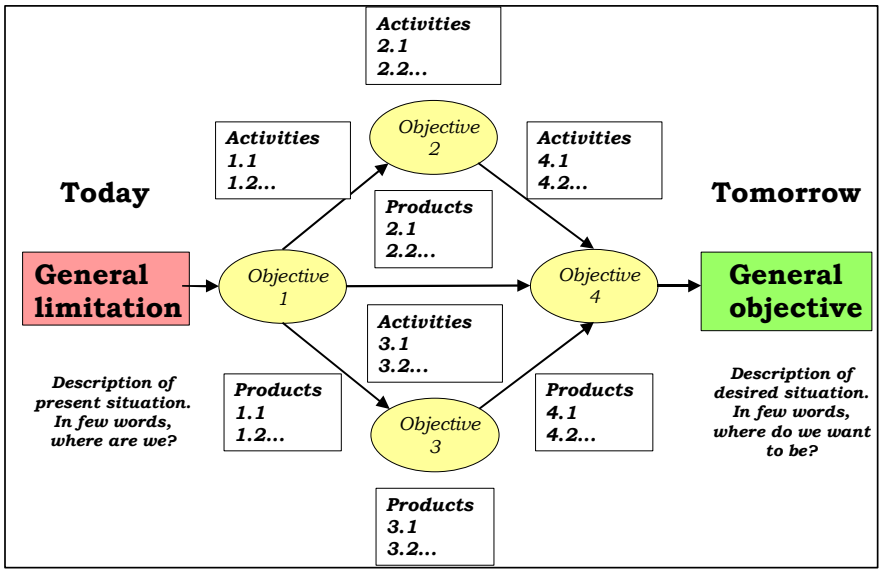
Once the objectives are logically organized, activities and results are defined for each objective. At this stage, the logical path clearly identifies the key entry point or points followed by additional linked objectives to guide the chain to the desired future (Figure 15).

Figure 15. Complete, simple logical path with actions and results.



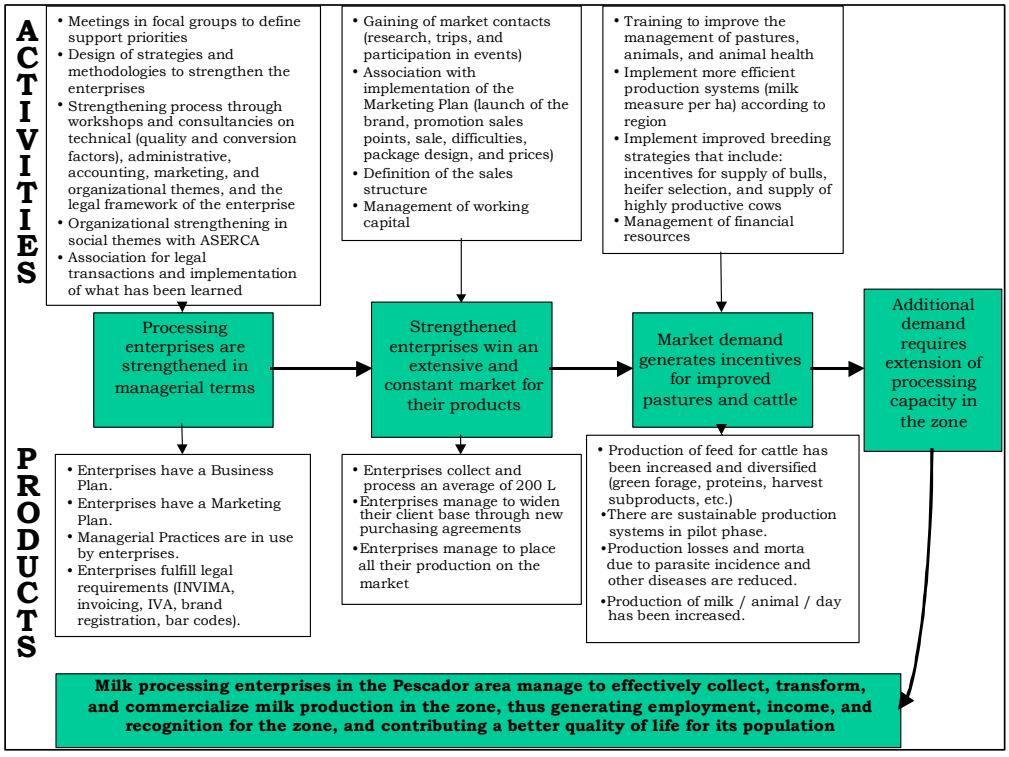
In most cases, however, reality is much less logical and linear than Figure 15. In these cases, the logical path can be represented with diverse parallel objectives that are necessary prerequisites for others further ahead. The objective of this exercise is to generate a graphic navigation chart that is understood by all participants in the strategy to increase competitiveness. An example of a more complete version of a logical path appears in Figure 16.

Figure 16. Complete logical path with parallel actions and results.



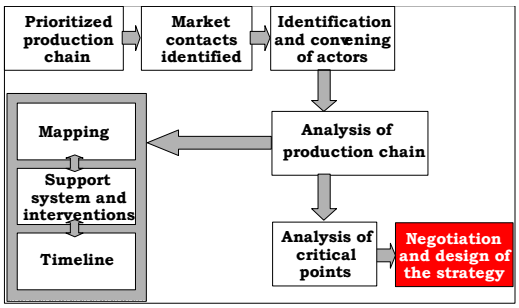
An example of a logical path is shown in Figure 17 below.

Figure 17. Example of a logical path for a Strategy to Increase Competitiveness.



In this module we have explained how to carry out an analysis of critical points, from their identification to their translation into objectives, and their inclusion in a logical path to increase the chain's competitiveness. In addition we have presented a simple exercise to assess the competitive position of the chain in regards to similar chains. With the logical path in hand, the facilitating organization is ready to systematize all the information generated up to now and share it with the chain actors. Based on this information, discussions will be facilitated, decisions made and resources committed to strengthen the chain. The next module explains how to facilitate the negotiating process between the actors and design the final strategy.

Module 9
Negotiation the Design of a Strategy To Increase Competitiveness



Guiding questions

1. Which of the inputs generated in the previous steps are important for facilitating negotiations between chain actors?
2. How can we use the previous analysis to clarify the interdependence between chain actors? Does this information identify areas where collective action by one or more actors could collaborate to improve their situation?
3. Does the existence of complete and shared information along the chain permit decision making and facilitate agreements between actors to increase chain competitiveness? Why, or why not?
4. What kinds of agreements can we expect from a negotiation workshop? For whom is this space useful?

Introduction

Module 9 focuses on the negotiation and design of the strategy to increase competitiveness among representatives of the chain. Before arriving at this point, the facilitating organization must have systematized the results of the chain diagnostic workshops and generated a technical document. This document is an input for the negotiation workshop and the discussion about how to increase the competitiveness of the chain. The list of participants for the negotiation workshop should be drawn from previous work with care taken to ensure the representation of key actors either directly or indirectly.

The technical report communicating the results of the chain diagnostic should be available to all workshop participants prior to the event, and serve as a starting point for the process of negotiation. Based on this document, the workshop reviews the results of the diagnostic, the limitations found in the chain, possible solutions, and establishes possible alliances and collective actions in the short, medium, and long term to contribute to increased chain competitiveness. Finally, the logical path is reviewed and a simple action plan developed for its implementation.

Below, we revise step by step how to facilitate a process of negotiation process to design a strategy to increase competitiveness.

Systematization of Results – Technical Document

Before the negotiation workshop, we recommend providing a technical document to participants, if this has not already been done, with the results from previous workshops. The contents of this document may follow the model below or another identified by the facilitating organization.

Suggested contents

1. Chain selection

A brief description of how and why the chain was selected.

2. Market contacts

key results of the market contacts with special emphasis on product qualities, market tendencies, and opportunities for new markets or new products.

3. Identification of actors

Who are the actors convened for the design of the strategy to increase competitiveness? Why were they selected? Who was excluded and why?

4. Analysis of the chain

a. Mapping

- Presentation of the chain map made in the first workshop where product flows, actors' relationships and business development services identified.
- A report on price formation, including production costs for producers (if possible for the intermediaries and wholesalers), as well as the purchase and sales prices for each player.
- A report on income distribution focused on gross margin (inputs – outputs) to know what percentage of the final price reaches each actor.

b. Characterization of the chain's actors

- Geographic location (where they are located)
- Role within the chain (what function is carried out: production, processing, support, accounting, marketing, transport, etc.)
- Level of organization (what grade of business organization each player has) and type of organization (farmer organization, community development organization, business firm etc.)
- Managerial capacity (what managerial practices are used such as: administration, accounting, management capacity, marketing, etc.)
- Disposition to participate in chain improvement (your perception of each player's desire to participate in activities to improve the chain).
- Possible alliances identified between actors and their motivations. What possible alliances are visualized, between whom, what are the factors that make the alliance possible? (For example, motivations such as: income gains, increased volume, improvement of product quality, opening new markets, etc.)

  This last question is highly important since the necessary details will be worked on in the negotiation workshop with all chain actors.

c. Business development services

- Include the business development services demanded and supplied along the chain. The analysis of these data can be based on the following questions.
- Who supplies business development services to the chain in the different links?
- How is the quality and effectiveness of the services perceived both by the clients and suppliers?
- Are there gaps between available services and those needed for increasing chain competitiveness? What are they?
- Are there services that have many suppliers and few clients?
- Which services are paid for, and which require subsidies to function? Is there a relationship between the quality of the service and whether it is paid for or subsidized?

d. The timeline and past interventions

- Share the table of chain history with the actors.
- Analyze the types of support offered to whom and on what themes.
- If people have catalogued this support as negative, analyze why.
- Share the outcome of previous interventions and identified local capacity to effect positive change.

5. Analysis of critical points

Include copies of the general limitation tree and the general solution tree with ranked limitations and their analysis. If discussions are anticipated, it may be useful to have all the problems trees generated available.

6. Logical path for the chain

Include a copy of the logical path generated for the chain with its respective activities and results.

In addition, give credit to for data collection and analysis to participants and facilitators in the workshops in the summary document.

We recommend providing this technical document with participants in the negotiation workshop ahead of time so that they can review the contents. It is also useful to kick off the workshop with a brief presentation highlighting the most important results from the diagnostic process. This aspect is important as some of the actors present in the negotiation workshop may have been absent from the previous workshops, but are key to resolving the chain's difficulties.

Negotiation Workshop

Objectives

- Share and discuss the chain diagnosis with a representative group of chain actors.
- Identify key critical points among the different actors.
- Negotiate possible alliances and collective actions (between more than one actor) to resolve key critical points.

Development of the workshop

The following steps are recommended for the negotiation workshop. Each organization should revise their applicability for their conditions, and adapt or change them according to their best criteria. Mixing these steps with social activities focused on building better relationships between actors is recommended.

Presentation of limitations by actor

At the start, the problems found in the chain can be shared by each group of actors. An easy way of communicating this information is by means of a matrix where the functional categories of the chain appear with the points of view of the different actors as shown in Table 18.

Table 18. Example of a matrix of problems per activity and actor.

Activity	Actors*			
	Producers	Traders	Buyers	Support organization
Production	☹☹	--	--	☹
Post harvest management	☹☹	☹☹☹☹	☹☹☹	☹
Processing	☹	--	☹☹☹	☹☹
Marketing	☹☹☹☹	☹☹	☹☹☹☹	☹☹☹
Business organization	☹	--	☹	☹☹☹☹

* more ☹ indicates a more important problem.

This matrix should be adapted to the chain's needs since the problem probably will not be as general as post harvest management, but rather something more specific such as "lack of adequate packaging material".

Facilitating notes

- The information needs to be presented to the actors in an easily understandable and comparable way according to the rank that each group has given the problem. If different actors have used different terms to refer to the same problem it is important that either all the terms appear (so that everyone can clearly see their point of view represented), or else a short phrase that attempts to pick up the essence of the problem. If the second option is selected, the facilitator of the meeting must explain where the phrase comes from, and that this intends to reflect the terms used by the participants.
- It is a good idea to leave a space for the participants to provide feedback on the diagnostic by giving their opinions and clarifying points that are confusing.
- It is important to emphasize not so much the diversity of viewpoints, which will certainly occur, but rather common issues where a collective solution to the limitation may be found.
- The objective of this space is to show the participants that their problems are intimately interrelated. The links between actors and their difficulties serve as inputs to identify common cause and as a way of visualizing possible gains for various actors from changes made in one part of the chain.

Negotiation between actors

The second stage of the workshop seeks to facilitate discussion among participants to identify the best way to improve chain functionality. This process should flow from the problem analysis included in the first part of the workshop. The objective is to identify joint activities (or areas in which joint activities could be generated) in the short, medium, and long term that to improve the chain. Ideally, these activities will represent some type of gain for all participants or, at least, for more than one of them. It is important to avoid focusing on solving a problem that only affects one actor since the rest could misinterpret this as favoritism and feel taken advantage of.

In this stage, the real interest of the participants in supporting collective action in the chain is put to the test.

Facilitating notes

- The role of the workshop facilitators is key at this stage since equilibrium must be found between the distinct actors. The focus should be on how to generate positive solutions for all, not gains for some at the expense of others.
- It is better to identify relatively simple activities in the short term and increase the level of complexity and difficulty over time even though complete solutions probably represent more gains than partial ones. We recommend this approach as most of the actors in the chain do not know one another well, and may even have an adversarial relationship. To achieve complex objectives, therefore, requires a process of incremental positive experiences through which actors can build trust in each other and confidence in the process of chain improvement.

Identification of possible alliances for generating and implementing solutions

In the third step of the workshop, potential opportunities for collaboration are identified. This starts by listing possible solutions, the actors who wish to participate in the solution, and what they are willing to contribute. A Table such as Table 19 could be generated.

Table 19. Identification of possible alliances.

Stage	Activities	Participants	Contributions
Production			
Post harvest			
Processing			
Marketing			
Business organization			

Here it is a good idea to divide the possible activities by time frame (short, medium, and long term) and by resources (local and external resources). It is important to note that the concept of short, medium, and long term varies by the chain. One of the tasks of the negotiation workshop is to identify a feasible time frame with chain actors. We recommend starting with actions that show quick, tangible results—in a few months—to generate a positive dynamic around the strategy to increase competitiveness. In this sense, a reading of the participants' degree of patience is important. More patient groups can opt for more ambitious initial results, while groups with pressing needs or low levels of trust need rapid results to achieve simple, but important, achievements (see Table 20).

Table 20. Time and resources required for implementing a Strategy to Increase Competitiveness.

Resources	Time limit		
	Short < 6 months	**Medium 6 to 12 months**	**Long > 12 months**
Own	What can we do in the next 6 months without external help?	What can we do in the next 6 to 12 months by mixing local resources with targeted external help?	What can we do in 1 year or more based on local capacity and a judicious use of external support?
External	If there is no sure source of funds in the short term, it is best focus on solutions that use local resources and knowledge.	What key activities in the next 6 to 12 months should be prioritized for limited external support?	What key activities require external support over the long-term (i.e targeted research) to help promote chain competitiveness?

Facilitating notes

- At this stage in the workshop, goal is for chain actors to commit to collaborate to resolve common problems, and not so much the elaboration of detailed plans. Details can be worked out in the final strategy to increase competitiveness, and further revised and improved upon in additional workshops as the necessary confidence between the actors grows.
- The workshop facilitator should try to emphasize solutions that focus principally on the useof local resources since the attainment of external resources is a long, risky process. By choosing this path, solutions may take more time, but they will not be subject to external decision making processes divorced from local realities.

Revision of the logical path

Based on the above discussion, the logical path prepared previously is presented to the workshop participants for discussion and improvement.

At the end of the negotiation workshop the following products should be available that serve as input to the preparation of the final strategy:

- Identification of possible alliances to solve chain problems and clear commitments in this respect.
- Anticipated activities, with times and external resource needs.
- Revised and improved logical path for a strategy to increase competitiveness.

Design of the Final Strategy to Increase Competitiveness

Based on the corrected technical document, the systemized results of the negotiation workshop, and the agreements achieved between the actors, a final version of the strategy to increase competitiveness is designed. This document can be a more extensive version of the technical document, adding the results and agreements of the negotiation workshop, or can be a new document with more details. Generally, various details from the negotiation workshop remain open for discussion, such as responsibilities, costs, and dates. These details should be developed and put in the final document either by the facilitating organization or by a working group of chain actors. In this sense, the final strategy is an on-going process.

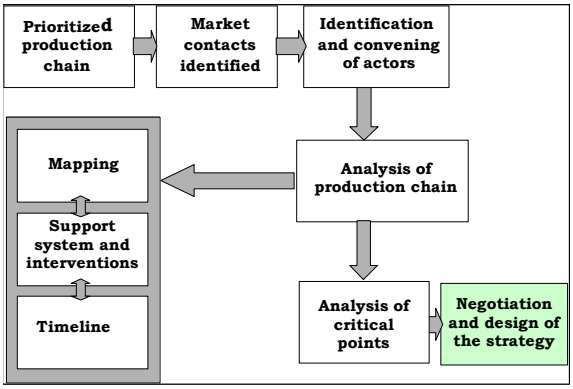
CIAT does not recommend a specific format for the final strategy, as its use for planning joint actions and for developing funding proposals precludes a set structure. We do recommend, however, that the chain have a logical general framework for the chain improvement that all

actors can agree upon and collectively seek to implement. This is especially true in big chains where the total cost for implementing the complete strategy at once is prohibitive. In almost all cases, it is recommended to divide the strategy into specific subprojects focused on specific funding opportunities while, as the same time, not loosing sight of the relationships between each subproject.

In general terms, the strategy can be understood as a road map that defines a path for increasing the competitiveness of a chain. The way in which the strategy is implemented depends on the actors themselves. There are examples of strategies of competitiveness that are implemented by local actors (formal and informal) with a minimum of external help, and others that have managed to obtain significant funding. It is important, therefore, not to view the strategy as a document, but rather as the first step in a process of discussion, collaboration, and support between actors focused on changing their relationships in a substantial way, and therefore the functioning of the chain.

In the following and final module, some general guidelines for the monitoring and evaluation of strategies to increase competitiveness are presented.

Module 10
Monitoring Strategies to Increase Competitiveness: General Guidelines



Guiding questions

1. What are some key factors for the design of a monitoring and evaluation system useful for the chain actors?
2. What factors are key to measure changes originating from the strategy to increase competitiveness along a chain?
3. What factors can we use to compare the chain we are supporting with others that compete with it?
4. What are some indicators that permit us to measure the competitive performance of the chain in selected markets?
5. What livelihood impacts can we anticipate to find on chain actors over time?

Introduction

The implementation of a strategy to increase competitiveness can take many forms ranging from tacit agreements between groups of actors to form value chains, to the financing of important development projects whose aim is to improve one or various chains in a rural territory. Facing this diversity, it is difficult to design a single system for monitoring and evaluation of the implementing of strategies to increase competitiveness. This module intends rather to present some key parameters at different levels that can be useful for measuring the changes achieved by these strategies. They should be taken as guidelines rather than as fixed rules. Naturally, each facilitating organization should revise, adapt, eliminate or add to this list to have something that is useful for their needs.

Notes on Monitoring and Evaluation

Before beginning the design of a monitoring and evaluation system for a strategy to increase competitiveness, it is useful to reflect upon several questions. First, who are the intended users of the data generated by the proposed monitoring and evaluation system? Will the users be technicians, donors, managers of the facilitating organizations, chain actors, the government, or a mixture of these? How will the data be used the different groups? Depending on the users, a system or various systems should be designed in response to their needs, desires, and capacities. If a particular group is expected to participate in the process, it is important to ascertain if the group's interests are clearly represented in the proposed system.

Second, the proposed system should be sufficiently simple or complex to respond to the needs of its users. If the monitoring and evaluation of the strategy will be implemented with chain actors,

the system should be designed with their participation so that it responds to their needs by generating information useful for their decision-making processes. It makes no sense to design a complex system when the questions formulated by the users are simple, or conversely, a simple system to respond to the needs of academic researchers with complex questions.

Third, what are the objectives of the monitoring and evaluation system? Is it a system to help respond to the donor's demands for information? Is it a system that intends to show the actors how near or far they are from the levels of competitiveness of other similar chains? Is it to capture stories of positive changes for publicity reports? Is it to collectively learn about what works in improving a chain and share it with others? Having clarity about the rational behind the system is important so that this is designed and dimensioned correctly.

Finally, a monitoring and evaluation system to be effective must continue to function over time. Who will manage the system? Who will take charge of collecting, processing, and feeding data into the system? How often? Will local persons or external experts carry out these activities? How will the management of the system be paid for? The system should be designed to be feasible to manage, maintain, and use.

Possible Factors for a Monitoring and Evaluation System

Some possible factors to take into account for a monitoring and evaluation system are set out below with their respective sources of information. Again, this list does not intend to be either complete or unique; it should be used as input for the design of a monitoring and evaluation system that responds to users' needs.

Within the chain

- Production costs
  Evolution of production costs in the chain's different links. Are the costs stable, increasing, or declining?

- Yields per unit
  Evolution of the yields or productivity per unit invested or employed in the chain. For example, production per hectare planted, or quantity of cheese produced per liter of milk.

- Value of final product
  Evolution of the commercial value (in constant currency) of the final product or products of the chain. Is the value of the product increasing, stable, or declining?

- Profitability
  Evolution of the product's gross or net profit for the chain. Profit can be calculated in the each link as an easy way to identify which actors capture a greater percentage of the benefits. Are overall profits increasing, stable, or declining?

- Distribution of benefits
  How does the distribution of final product or products value along the chain and amongst diverse actors evolve over time? Who retains the most value, and how does this distribution change over time? This indicator is of special interest in projects focused towards poverty reduction.

- Improvement of processes, products, functions, and the chain as such
  There are various ways of improving a chain. Kaplinsky and Morris (2001)[20] identified four key trajectories.

  1. *Process improvement:* Increases in the efficiency in internal processes both in individual enterprises, and between enterprises in a chain. Examples in a chain are the frequent and timely delivery of products with the required quality.
  2. *Product improvement:* Introduction of new products or improvements in existing products more quickly than by rivals. This implies changes in the processes of developing new products within and between enterprises.
  3. *Functional improvement:* Increases in the added value by means of changes in the activities managed within an enterprise (for example, taking responsibility for quality within the chain), or moving the focus of activities to different links of the chain (for example, from production to marketing).
  4. *Chain improvement:* The chain passes from a basic product to a processed one of greater value.

Benchmarking

Based on the first five indicators used to measure changes within the chain, comparisons can be made between similar chains. This process is useful if a similar, more advanced, chain can be identified and data of the two chains shared with the actors so that they can see what can be achieved. In the same way, if there is access to data of other similar chains, existing good management practices could be identified and adapting them local needs.

Table 21 lists the sources of verification.

Table 21. Indicators and sources of verification within the chain.

Indicators	Source of verification
Production costs	Interviews or periodic workshops with strategic differentiated actors of the chain
Yields per unit	Interviews or periodic workshops with strategic differentiated actors of the chain
Value of final product	Survey of final value of product in the market
Profitability	Interviews or periodic workshops with strategic differentiated actors of the chain
Distribution of benefits	Interviews or periodic workshops with strategic differentiated actors of the chain
Improvement (processes, products, functions, chain)	Direct observations, interviews, or periodic workshops with strategic differentiated actors of the chain

In the market

- Market penetration
  How is the market position of products from the chain evolving? Is the participation of the products increasing, stable, or declining? In the same way, the segment of the market where the product is sold can be researched. Does the product reach a segment that is highly profitable, profitable, or only slightly profitable? Has this changed as a result of the strategy?

[20] Kaplinsky, R.; Morris, M. 2001. A handbook for value chain research. Available in: http://www.ids.ac.uk/ids/global/pdfs/VchNov01.pdf.

- Sales volume
  Evolution of total volume of sales measured in kilos.
- Sales value
  Value of sales of the chain measured in constant currency.
- Product differentiation
  Results from strategies to differentiate the chain's products in a specific market and thus gain a competitive advantage.

Table 22 lists the sources of verification.

Table 22. Indicators and sources of verification of the market.

Indicators	Source of verification
Penetration of the market	Periodic interviews or workshops with differentiated strategic actors of the chain. Periodic surveys in the target markets of the chain.
Sales volume	Periodic interviews or workshops with differentiated strategic actors of the chain. Periodic surveys in the target markets of the chain.
Sales value	Periodic interviews or workshops with differentiated strategic actors of the chain. Periodic surveys in the target markets of the chain, revision of secondary data on market prices.
Product differentiation	Periodic interviews or workshops with differentiated strategic actors of the chain. Periodic surveys in the target markets of the chain.

Results on livelihoods (differentiated by gender, population groups and economic status)

- Participation of chain income in the overall livelihood strategies of the target populations.
  Evolution of the percentage of the target population's income originating from activities related to the chain. This measurement can include the sale of products, employment, or reduction of purchases as a result of the strategy to increase competitiveness. How do the activities supported by the strategy contribute in the generation of livelihoods, and how do these contributions evolve? Are those who benefit from the chain women or men? What population or income groups benefit the most or the least from improvements in the chain? Why?
- Diversification of income sources and income stability during the year.
  How to chain activities affect the income diversity and security of the target population during the year?
- Use of added income of the chain
  How does the target population use added income generated by the chain? Who decides upon the use of the added income generated by the chain?
- Employment generation
  How does the chain contribute to temporary or permanent employment generation disaggregated by gender, ethnicity, or age. Who from within the community gains most from these opportunities?
- Participation in the local economy
  How does the relative importance of the chain change over time in relation to other economic activities in the local economy?

Table 23 lists the sources of verification

Table 23. Indicators and sources of verification of livelihoods.

Indicators	Source of verification
Income generated by the chain as a percentage of local livelihood strategies	Periodic interviews or workshops with differentiated strategic actors of the chain
Diversification and security of income sources	Periodic interviews or workshops with differentiated strategic actors of the chain
Use of the chain's added income	Periodic interviews or workshops with differentiated strategic actors of the chain
Employment generation	Periodic interviews, secondary government data
Participation in the local economy	Government data (if they exist)