

The Territorial Approach to Rural Business Development

Module 2: Identifying and Assessing Market Opportunities for Small-Scale Rural Producers



Carlos F. Ostertag, MSIM
Rural Agro-Enterprise Development Project
CIAT

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Centro Internacional de Agricultura Tropical
International Center for Tropical Agriculture
Apartado Aéreo 6713
Cali, Colombia

Fax: (57-2) 445-0073
E-mail: c.ostertag@cgiar.org

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Preface

This marketing research manual for small-scale rural producers was originally published in Spanish in 1999, as part of a nine-title series developed by CIAT, named “Tools for Decision-Making in Natural Resource Management”. It was soon translated into English that same year, with some improvements, and has been used subsequently in Africa and Asia. The original English version of this manual was utilized for the first time in a training course on Rural Marketing held in Nairobi, Kenya from 22-27 November 1999 and organized by IITA, CIAT and CIP.

This new English version of the manual exhibits several changes. Firstly, it is updated and improved, based on feedback obtained since 1999 from colleagues and trainees worldwide, especially in Latin America (Colombia, Ecuador, Nicaragua, Honduras, Dominican Republic, Peru and Bolivia). Secondly, two sections of the original manual have been transferred to the first and third titles of the four-title series describing the components of the “Territorial Approach to Rural Business Development” or TA-RBD, a methodological tool developed by CIAT’s Rural Agro-Enterprise Development Project. This new version of the manual is now the second title in the aforementioned TA-RBD series.

This manual combines market research, product concept evaluation, and business analysis techniques to generate a practical, innovative approach for identifying rural business development projects that stresses a greater business and marketing orientation. It also proposes a participatory orientation that allows rural producers to make key decisions throughout the market research process.

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- Dr. William Edwardson (ex-IDRC, Canada), Dr. Jacqueline Ashby, Dr. Rupert Best (both of CIAT) for their support during the development of the methodologies presented in this manual and during its production.
- Colleagues and trainees in Latin America, Asia and Africa who have provided questions and comments for improving this manual.

Introduction to the Manual

Traditionally, small-scale rural producers in developing countries of Latin America, Africa and Asia have focused on subsistence farming and on selling small amounts of surplus. After a strong migration to urban areas stimulated by national economic development models, the proportion of rural population has decreased, and the remaining rural producers continue to be resource-poor and to produce mostly staple food crops. However, this small-scale rural producer sector has become more heterogeneous, and can be segmented according to well-being levels and degree of market orientation.

In the past, rural development efforts in support of these small-scale rural producers focused mainly on food security, which was perceived to be a supply problem. Therefore, efforts concentrated on increasing productivity of traditional agricultural production and to sell the corresponding surpluses, rather than on studying market demands to propose diversification of agricultural production.

Although agricultural productivity has increased in the last decades, real prices of staple crops and commodities have steadily declined due to inelastic demand, which has impacted negatively on rural livelihoods in developing countries. This is reflected by the fact that 70% percent of people living in poverty live in the rural sector of developing countries. Food security is now perceived to be the result of market development, and income generation derived from product diversification and processing is considered to be a key strategy to promote it.

These trends suggest the convenience of adopting rural development strategies that are more business and market oriented, to promote income generation through stronger ties with growth markets, product diversification and processing. This manual provides a methodology that helps both rural development practitioners and small-scale rural producers to respond to this vital need.

The importance of linking small-scale rural producers with growth markets is currently recognized in view of:

- the globalization and opening of the world economy, which forces small-scale farmers and processors to be more competitive to take advantage of market opportunities and to confront threats from imported products with greater economies of scale
- the fact that real prices of basic commodities exhibit a long-term downward trend due to excess supply and inelastic demand
- its strategic value in reducing the high poverty index of rural populations by increasing rural producers' income, employment and food security
- the growing interest of developed markets in biodiversity issues, in products of small-scale producer economies on the grounds of justice and equity, in exotic products, and in organic and natural products

- the multiplication of niche markets with demand for products where small-scale rural producers may enjoy competitive advantages
- the need for a strategy that promotes improved natural resource management by small-scale rural producers

This manual is the second title of a four-title series called the “Territorial Orientation to Rural Business Development” or TA-RBD, developed by CIAT’s Rural Agro-Enterprise Development Project. The first title of this series recommends a series of activities that represent a prerequisite to the implementation of this market opportunity identification method. Some of these title-one activities include an analysis of available resources in a given territory and of the small-scale rural producer’s livelihood strategies, formation of a pro-rural business development interest group, and execution of regional strategic planning.

In addition, the result obtained from the implementation of this market opportunity identification manual (a small portfolio of market options with demand, viable in a given territory and accepted by small-scale rural producers) is a key input for the methodology described in the third title of the TA-RBD series. This latter methodology focuses on the analysis of the production and marketing chains of the resulting market options to develop action plans to enhance chain competitiveness.

The methodology presented in this manual was developed and successfully implemented by CIAT in a reference site located in a hillside ecosystem of the Cabuyal River watershed in northern Cauca, a department located in southwestern Colombia. It has then been executed in Yoro (Honduras), in Pucallpa (Peruvian Amazon), and in San Dionisio, Nicaragua. The methodology has been presented to hundreds of trainees worldwide since 1998, especially in Latin America, and has been downloaded thousands of times from CIAT’s website where it has been available since 2000.

Objectives of the Manual

This manual is a tool for promoting a greater business and market orientation within the rural sector of small-scale producers. Not only will it promote the diversification and processing of agricultural production, but it will also help detect market opportunities for traditional products of rural economies, in fresh or processed form. It can also be used to promote a business approach by including formal agronomic, agro-industrial, livestock, and commercial characterization plus economic evaluations of potential market options. In addition, the manual proposes a participatory procedure that involves the small-scale rural producer from the beginning in the research process.

It is important to clarify from the beginning that the purpose of this market opportunity identification method *is not to replace small-scale farmer crops, products or production systems, especially those that are key for food security, but rather to offer options for diversifying or complementing production systems.* This warning is essential, in view of

the relative small risk-taking capacity of most small-scale rural producers. Diversifying sources of income can be viewed as a strategic decision to reduce risk in the fragile context of the small-scale rural producer.

Neither should rural development seek to promote monoculture but, instead, associated cropping, which is more consonant with the needs of small-scale rural producers and the current trends towards a more sustainable agriculture, with reduced use of agrochemicals.

General objective

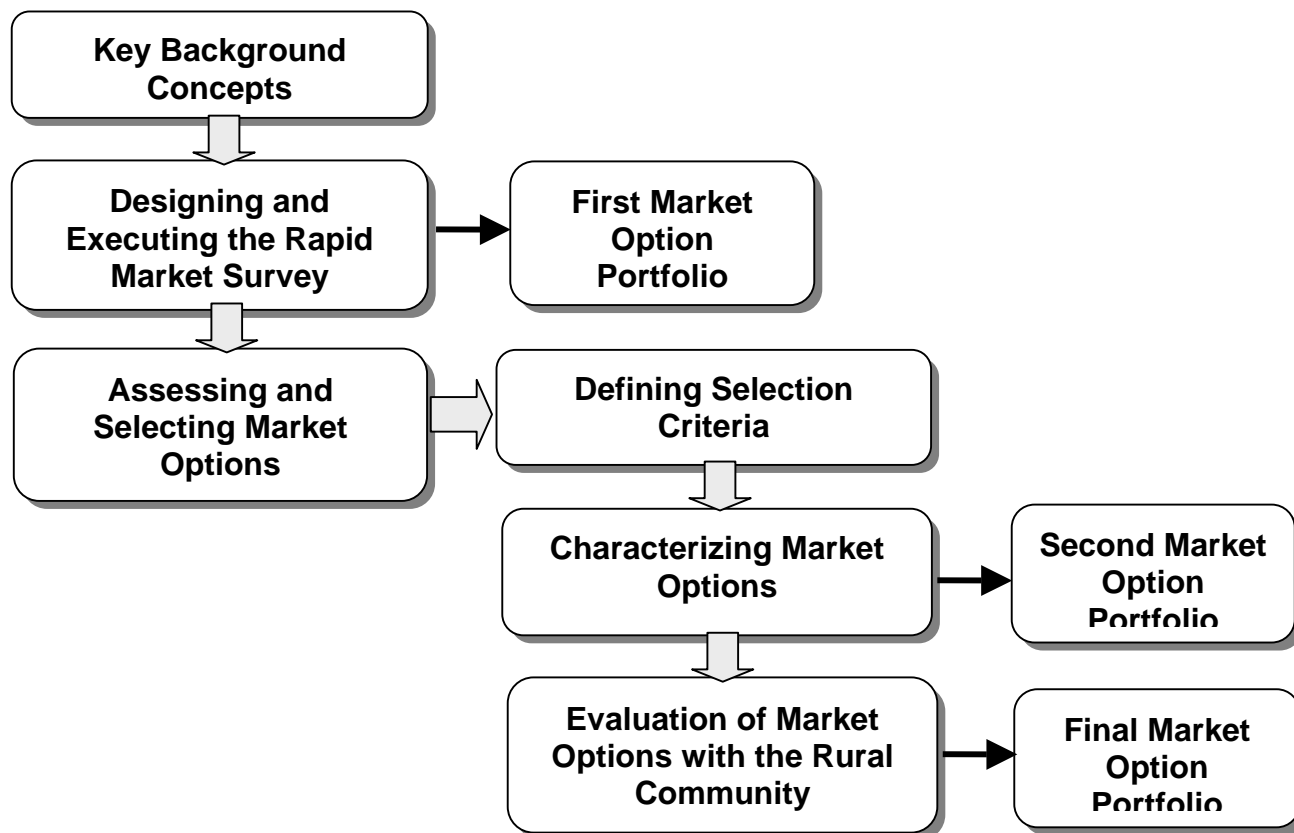
The reader or trainee will be able to facilitate or participate in the process of identifying and evaluating market opportunities for small-scale rural producers in a given territory. These market options will (a) exhibit market demand, (b) be feasible in the territory under consideration, and (c) be accepted by the community of small-scale rural producers.

Specific objectives

After completing this manual, the reader or trainee will be able to:

- Understand basic background concepts related to market opportunity identification for small-scale rural producers in a given territory;
- Plan and execute a participatory rapid market survey for a given territory;
- Establish selection criteria for market options targeted to small-scale rural producers;
- Characterize and screen market options for a given territory;
- Plan and execute an evaluation process of market options by the rural community

The Manual's General Structure



Key Background Concepts for the Design of the Research Process

The manual starts by explaining key concepts that are useful when designing a market opportunity identification process for small-scale rural producers in a given territory. These concepts include the marketing function and market research, the social and economic context of small-scale rural producers, basics of the production chain concept, basics of rural agro-industry, Ansoff's Product-Market Growth Matrix, and key macro food consumption trends. Afterwards, the manual explains how the research team can be organized to guarantee the participation of small-scale rural producers from the beginning.

Designing and Executing the Rapid Market Survey

Survey objectives and strategies are initially defined. Then, a practical method directed towards local, regional, national, and even international markets, if so warranted by the region's production potential, is proposed. The method usually concentrates on contacting agents and institutions participating in the marketing chain of agricultural and

agro-industrial products. As long as it is economically feasible, primary market data should be collected, although, in some cases, secondary data can be useful. The manual explains how to design research instruments and what the key research questions are. This information will help identify marketing opportunities by collecting useful information for characterizing market options and conducting participatory evaluation with small-scale producers. The market options may be agricultural, livestock, forest, agro-industrial, or handicraft products.

Assessing and Selecting Market Options

The evaluation criteria of market options identified in the previous phase are defined, including business attractiveness, viability on small farms, and contribution to production sustainability.

Market Option Characterization

Subsequently, the market alternatives under study are submitted to agronomic, agro-industrial, livestock, commercial and economic characterization. For practical effects, summary matrixes should be used as working tools. The economic characterization implies the definition of appropriate production systems for small-scale producers and the development of financial profitability models. It can also imply the discard of several market options.

Final Evaluation of Market Options with the Rural Community

The next step, the participatory evaluation of market options with the rural community, combines techniques for testing product concepts, used in market research, and participatory research. This exercise aims to determine producer preferences regarding market options and to detect small-scale producers' decision criteria. This process implies, among other aspects, that producers be categorized according to an associated variable such as the degree of market orientation or level of well-being, the subdivision of the territory or micro-region, the design of product profiles, and conducting of several meetings to perform participatory evaluation. This exercise is important for evaluating the viability of the options under study in the small-farm context.

This evaluative process yields a final portfolio of agricultural, livestock, forest, or agro-industrial products with market potential that are profitable, acceptable to producers, and contribute in some way to natural resource conservation.

How to Use this Manual

Target clients

This manual is targeted to rural development practitioners (professionals and technicians) in the public and private sectors, who are dedicated to research,

development or training. In this context, the manual can be used either as a field guide or as training material. The manual contains exercises, practices and a glossary to facilitate training processes.

Additionally, this manual is directed to high school, college and university professors teaching subjects related to agricultural sciences, rural development, agro-industry, and participatory research.

Use of Content

This manual is designed for use in its entirety, because it describes a logical process. The first section provides important concepts that can enrich the subsequent research and analytical process. The second section, the Rapid Market Survey, generates the first product portfolio, while the third section provides a two-stage screening procedure to eliminate unfeasible or inconvenient market options. The execution of the complete proposed methodology will result in abundant information for solid decision-making that will result in less business risk.

However, in the case of timing or funding constraints, the Rapid Market Survey can be executed alone, but the research team will have to devise a practical method for determining priorities inside the initial market option portfolio. In addition, the information generated will be much less and decision-making will not minimize business risk. Likewise, the characterization matrices in the third section can be used to facilitate business and financial analyses of product options that have already been selected. Similarly, the evaluation procedure with the rural community involving product cards, can be useful in other development contexts where it is important to identify a communities' crop or product preferences.

Section 1

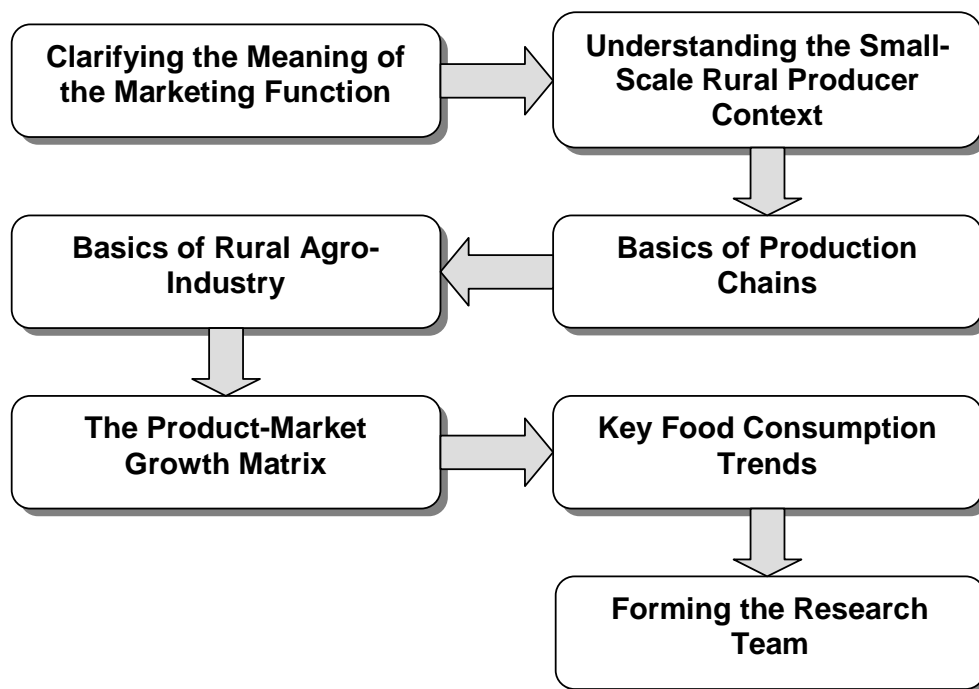
Key Background Concepts for the Design of the Research Process



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Section Structure



Objectives

General Objective

The reader or trainee will be able to understand and apply key background concepts that are important when planning a market opportunity identification process with small-scale rural producers.

Specific Objectives

After completing this manual, the reader or trainee will be able to:

- Understand the meaning and scope of the marketing function in relation to the market opportunity identification process
- Recognize the social and economic context of small-scale rural producers in the developing world
- Grasp the basic ideas around the production chain concept and connect them to the market opportunity identification process
- Be aware of the basic concepts related to rural agro-industry when planning and executing the market opportunity identification process
- Understand and apply the concepts related to the Product-Market Growth Matrix when planning the Rapid Market Survey
- Apply the knowledge relative to key food consumption trends when planning and executing the market opportunity identification process

- Establish a research team combining technical staff with representatives of small-scale rural producers to plan and execute the market opportunity identification process

Orienting Questions

1. What is the relation between market research and the marketing concept?
2. Why do you think most small-scale rural producers in developing countries still live in poverty?
3. Describe a possible route travelled by a banana from the small farm to the final consumer.
4. Make a list of five products that can be derived from potatoes and for each product, describe the type of processing that would be required.
5. Describe possible growth strategies for a territory in terms of products offered and markets targeted.
6. What modifications can you think of, related to your personal or family's food consumption trends in the last ten years?
7. Why do you think it is important to include representatives of small-scale rural producers in the team that will plan and execute a market opportunity identification process for them?

Introduction

This first section of the manual presents key theory and concepts that are useful for the members of the research team when planning and executing the market opportunity identification process. This section is especially pertinent for rural development practitioners who lack a solid business and marketing background. The following theory and concepts will surely enrich the research process and the quality of the final output. It should be noted that the glossary in the Appendix of this manual contains business and marketing definitions.

1.1 Clarifying the Meaning of the Marketing Function

The marketing function is one of the main business areas of an enterprise. It can be defined as “a business activity that focuses on identifying and satisfying market needs through a profitable and socially responsible production and supply of products in the form of goods and/or services”. This definition is quite broad, encompassing market research, new product development and the planning and execution of marketing strategies. *This manual is not a marketing manual because it does not concentrate on explaining how to plan and execute marketing strategies.*

Marketing theory deals with concepts and tools such as strategic planning and growth strategies, market analysis, market and consumer research, market segmentation, product positioning and branding, and development of marketing

plans and strategies. The latter topic refers to the handling of the four marketing variables (or four Ps), that is, product, price, place (distribution) and promotion. Promotion includes advertising, personal sales, trade and consumer promotions, and public relations.

The marketing variables are tools, under the control of the market-oriented enterprise, which are managed strategically to obtain the desired response from the market. The marketing plan is the instrument used to plan and implement marketing strategies, and is generally the key component in any business plan.

The methodology in this manual combines several business and marketing tools, such as market research, product concept research, business and market analysis, and financial profitability models. Market research is “a systematic process in which studies are designed to collect, analyze, and report pertinent data and discoveries for a specific marketing situation confronted by the organization” (Kotler and Armstrong). Market research is a subject that encompasses an extremely large range of objectives, methods and activities. The Rapid Market Survey proposed in this manual is an example of market research; however, to minimize costs and time, it centers on surveying different actors of the marketing chains of interest, instead of consumers. The section on assessment and selection of market options also uses business concepts for the characterization matrices and for presenting the selected market options to the rural community in the territory under consideration.

Readers who are especially interested in the marketing topic should consult marketing textbooks; those by Kotler and Armstrong are strongly recommended.

1.2 Understanding the Small-Scale Rural Producer’s Context

Note: The reader will find more information on this topic in the Introduction to this manual.

Summary of Rural Development Trends

Traditionally, small-scale rural producers in developing countries of Latin America, Africa and Asia have focused on subsistence farming and on selling small amounts of surplus. After a strong migration to urban areas stimulated by national economic development models, the proportion of rural population has decreased, and the remaining rural producers continue to be resource-poor and to produce mostly staple food crops. However, this small-scale rural producer sector has become more heterogeneous, and can be segmented according to well-being levels and degree of market orientation.

The negotiating power of agricultural and agro-industrial chains is moving from farmers, processors and manufacturers towards large national and international retail chains, with the risk that the latter can exclude small-scale rural producers. Although agricultural productivity has increased in the last decades, real prices of commodities have steadily declined due to inelastic demand, which has impacted negatively on rural livelihoods in developing countries.

However, a large proportion (80%) of the value of agricultural and agro-industrial products is generated off-farm.

Consumers and processors are increasingly demanding agricultural and food products with greater quality, safety, and convenience. Demand for health foods, sources of fiber and nutrients, such as fruits and vegetables, is increasing. The market for organic products also shows high growth, above 20% annually, and leadership has transferred from the Fair Trade niche to mainstream business. As a consequence, access to pertinent information and appropriate production, processing and marketing technology is becoming more and more important for actors in the agricultural and food chains.

Public sector reform in developing nations has resulted in privatization, decentralization, a greater participation of grassroots groups and the reduction of State presence in the rural sector. In consequence, public support to the agricultural sector declined, but the private sector has not filled the vacuum left by the State due to the high transaction costs implied when providing services to small-scale rural producers. These transaction costs are high due to rural population dispersion and poverty, plus deficiencies in basic rural infrastructure including among others, roads and communication. In addition, while subsidies to small-scale rural producers in developing countries have been discouraged, subsidies to farmers in developed countries have increased and prohibit small-scale producer competitiveness in key agricultural products. In general, there is strong evidence suggesting that small-scale rural producers are not benefiting as originally promised from the opening of world markets.

Seventy percent of people living in poverty still live in rural areas of developing countries. Despite their production potential, still confront serious deficiencies relative to access to resources, basic infrastructure, and services, plus access to business development services. Lack of support to small-scale rural producers has resulted in migration to cities, urban unemployment, violence and illegal activities, poverty and the deficiency of effective methods for promoting rural business development. Small-scale rural producer livelihood strategies also include on-farm diversification and at least 40% of rural income is generated off-farm. In addition, originally perceived to be a supply problem, food insecurity is now considered to be the result of underdeveloped markets in developing countries.

Finally, the last thirty years have witnessed an increase in the rate of natural resource deterioration with fragile ecosystems being exploited by populations with few incentives or opportunities to implement sustainable management practices in a profitable fashion.

A Strategy for Rural Development

The previous analysis of macro-trends and policy in the agricultural and food sectors and rural development suggests the existence of two pillars for rural business development: first, a facilitating environment including appropriate pro-poor policy at the macro, meso and micro levels, and, second, effective rural enterprises at the micro level.

To feed these two rural business development pillars, the following strategies are recommended: (a) promote participatory methods that directly involve local chain actors in decision-making and develop local capacity; (b) stimulate collective action and organization of rural economic organizations with a solid business and market orientation; (c) favor on-farm intensification, diversification and adding value locally in rural areas; (d) strengthen the market for rural business development services and its coordination; (e) generate and promote technologies related to small-scale agricultural production, including low-external-input-sustainable-agriculture (LEISA), irrigation and water management, tropical fruits, vegetables and livestock..

Pro-poor policy is an essential component of a poverty-reducing strategy for the rural sector in developing countries. The main recommended objectives for this type of policy are as follows: (a) to manage the supply of basic commodities to avoid overproduction, involving the elimination of agricultural subsidies in the North; (b) to support market development of rural business development services, involving temporary subsidies; (c) to provide incentives that promote both alliances between the private sector and small-scale rural producer organizations in value chains, plus further development of the Fair Trade segment; (d) to insert long-term processes with Small-scale rural producers, including improved access to natural resources, basic infrastructure and services, plus support for exit strategies when needed, and (e) to strengthen the human capital of international, national and local rural development agencies.

1.3 Basics of the Production Chain Concept

The production or marketing chain refers to the system that consists of actors and organizations, relations, functions, and product, cash and value flows that make possible the transfer of a good or service from the producer to the final consumer. A production chain is made up of inter-related links, which are generally production, post-harvest and processing, marketing and consumption. (See Figure 1).

Traditionally, rural development practitioners have placed more emphasis on the first link, production, because it is the chain component that is most directly related to the small-scale rural producers. In addition, past rural development interventions have mostly centered in increasing agricultural productivity, a variable directly related to production.

However, it is essential to obtain an integrated perspective of all of the production chain, and not only of one of its parts. Entrepreneurs and successful businessmen are usually acquainted with all of the links in the production chain where they compete. This holistic perspective is essential to match product supply with market demand, and to understand the different functions, inter-linkage relations and conflicts, constraints and opportunities, plus price and value formation along the chain.

The third module of the Territorial Orientation to Rural Business Development (TA-RBD), or the title following this manual, presents a method for analyzing a production chain in a participatory fashion to develop action plans focused on eliminating key constraints and taking advantage of opportunities along the chain. It is important that the research team be aware of the production chain concept, given that, firstly, some of the team members actually form part of the production link and, secondly, they will actually be contacting and interviewing several actors in the post-harvest, processing and marketing links of the production chains under consideration, especially while executing the Rapid Market Survey.

Figure 1.1 presents a diagram of the “Extended Production Chain” that includes, in addition to the several chain links, aspects related to the business organization and local support services. Business organizations throughout the chain may include informal farmer groups, farmer cooperatives and associations, intermediaries, processing enterprises and retail outlets such as supermarkets and corner stores. Local support services include formal and informal providers such as input suppliers, retail outlets, public and private rural development agencies, repair shops, accountants, lawyers, etc.

This extended chain concept is convenient because, generally, the strengthening of business organizations (or the micro level of rural development) and of local support services is key for improving the competitiveness of a production and marketing chain.

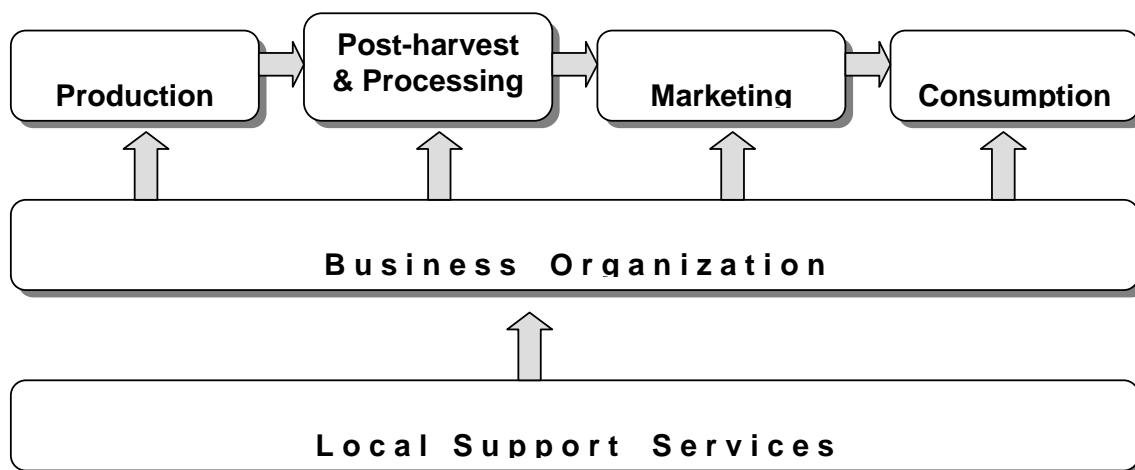


Figure 1.1. The Extended Production Chain

1.4 Basics of Rural Agro-Industry

An agricultural product differs from an agro-industrial product in that the latter has aggregate value, in this case at the rural level. The aggregate value, or level of processing, can be of different complexity, ranging from levels I to III. Level I involves simple operations such as washing, cleaning, ginning, roasting, classification, bulk packing, and storage. Level II includes more complicated

processes such as refrigerating, milling, cutting, mixing, dehydration, cooking, and packaging. Level III involves operations such as extraction, distillation, freezing, fermentation, extrusion, and enzymatic processes.

In agro-industry, it may also be useful to differentiate between the terms 'processing' and 'transformation'. A product is 'processed' when its form is not changed much, and is 'transformed' when its form is changed radically. For example, when a fresh orange is classified and polished, it is processed, but when it is converted into orange juice, it is transformed. Likewise, cassava is transformed when it is converted into cassava starch or flour.

The promotion of rural agro-industry is strategic in rural development activities, for the following reasons:

- agro-industrial products, in contrast to basic commodities, do not exhibit a long-term real-price decline and, thus, are more effective in increasing local income
- agro-industrial activity (adding value) in rural areas increases local employment and income and has a positive impact in the local economy due to forward and backward linkages
- product differentiation is easier for goods that have been processed or transformed, packaged and labelled
- in consequence, agro-industrial products tend to enjoy a higher profit margin than basic commodities

In times of economic aperture and globalization, it is vitally important to seek ways of linking rural economies to growth markets in a profitable and sustainable way. Among the first logical steps towards this goal is to convert an agricultural product to an agro-industrial product by adding to its value.

The implication for the research team is that it should be on the lookout for market opportunities related not only to fresh goods, but also to processed and transformed products. These agro-industrial products can be traditional and already existing in the territory, or can be new, potential products to be introduced.

1.5 The Product - Market Growth Matrix

The Product-Market Growth Matrix is a valuable tool used in Strategic Planning that presents a simple conceptual framework relative to growth strategies for a given business firm (See Table 1.1). However, this matrix can also be applied to a given territory, because the latter can be thought of as a set of producers and chain actors constituting an interest group that can function as a sort of regional agro-enterprise.

Table 1.1. Product-Market Growth Matrix (Ansoff, 1957).

	Existing products	New products
Existing markets	Market penetration	Product development
New markets	Market development	Diversification

Based on two variables, product and market, the matrix proposes four main growth strategies for the territory, which are explained below.

1. *Market penetration* means increased sales of products to current market segments, without changing the product offered. This can be achieved by either reducing prices, improving distribution, and/or increasing promotion.
2. *Market development* means identifying and developing new market segments for current products. These new market segments can be represented by institutional markets, other geographical areas including export markets, or buyers using the product in new ways.
3. *Product development* refers to the offer of innovative products, new products for the region, or modified products to current market segments. Products do not necessarily have to represent an innovation, but can be existing products that are improved, or packaged and labelled differently.
4. *Diversification* is the production of new products for new markets.

It is important to note that each of these growth strategies represents a different risk level. Risk is an essential aspect to consider when working with small-scale rural producers, because they tend to be risk-averse due to their weak economic context and low access to resources. Risk increases in direct proportion to the level of change. For example, whereas the market penetration strategy implies the lowest risk level because it demands the least change, the diversification strategy signifies the greatest risk because it requires more change. However, it should be noted that the element of risk is always present in business and marketing activities.

The implication of the growth matrix strategies for the research team in charge of the market opportunity identification process is that it has to be on the lookout for market opportunities for traditional regional products of the territory, and also for new and potential regional products. The Rapid Market Survey tries to identify market opportunities for a given region, regarding both traditional and new, potential products.

1.6 Key Food Consumption Trends

It is very convenient that the research team be aware of current global trends in food consumption. This knowledge can help identify market opportunities for both traditional and new, potential products in the region. Some of these trends are described as follows:

- Consumers tend to prefer “convenience products”, which are those that are practical and easy to use. The reason for this trend is that firstly, more and more women are working outside their homes, and secondly, for several reasons there is less time or interest in preparing food in the household. Convenience products are generally either processed or transformed, and are packaged and labelled.
- Some examples of convenience products are the following: packaged, refrigerated, pre-cut vegetables for home-made salads; packaged, refrigerated, pre-cut vegetables for home-made soups; bottled fruit juices and dairy products; beverage, soup and cake mixes; pre-cooked, frozen foods, roots and vegetables; pre-cooked, frozen meals; packaged snacks; canned tuna fish, fruits and vegetables; bottled fruit and vegetables; processed meats, etc.
- There is greater interest in health and balanced nutrition, including natural and organic products:
 - The market for fresh produce, mainly fruits and vegetables, is exploding.
 - The nutraceuticals (products that can prevent or cure illness) market is growing rapidly worldwide.
 - In the United States and the European Union, the growth of markets for organic agricultural products has reached impressive figures: more than 20% per year.
 - The consumption of sources of dietary fiber, vitamins and minerals, including fruits and vegetables, is increasing.
 - There is enormous interest in eating low-calorie (light) foods.
 - There is renewed interest in natural medicine, which is based on the use of medicinal plants.
- Food consumption outside the household, in restaurants and fast food outlets, is rapidly increasing.
- Consumers of developed countries are showing great interest in exotic tropical and subtropical products, such as fruits and vegetables.
- The ethnic market (or nostalgia) market is expanding rapidly, pushed by domestic and international migrations.
- In addition, the industry has shown interest in renewable raw materials and in responding to the consumer preferences already mentioned.

An implication for the research team is to remain alert with respect to market opportunities related to convenience, health-related, exotic and ethnic products. Additionally, the group should include restaurant and fast-food chains in their contact list for the rapid market survey.

1.7 Forming the Research Team

The research team conducting the market opportunity identification procedure can be small, from three to five persons, and should combine one to two technical personnel with two to three representatives of small-scale rural producers from the territory under consideration.

The facilitator or coordinator of this team should be a professional with business and financial background, or a rural development practitioner with basic training in business topics. This background is essential given the objectives and content of the market opportunity identification procedure.

The presence of small-scale rural producers in the team is key for several reasons. Firstly, it is important to have the point of view of the rural producers since they are the real clients or beneficiaries of this research exercise. They should participate in decision-making when selecting and discarding market options, because it is well known that small-scale rural producers have a different rationale, way of thinking or decision-making criteria than technical personnel. Secondly, the research team will gain more credibility from the rural community if the final research results are presented by equals or friends, and not by technical staff with another way of thinking. Thirdly, commitment from the rural community will be enhanced if they are aware that two or three of their equals are participating in the research team. In this manner, the probability of implementing research results will increase.

The members of the research team should be able speak, read and write fluently, as this will be required during the research procedure. Personal business or sales experience will be an asset. The rural community should be aware of these requisites ahead of time, if they decide to select their representatives in the research team.

Exercise 1.1 Mapping an Extended Product Chain

Objective

- The trainee will be able to identify key links, actors and organizations, functions, price formation and local support services along a selected production chain.

Instructions for the Facilitator and Trainees

1. Form groups of four participants, by territory if possible, and select a coordinator.
2. Choose a product or product chain from the territory with which at least one member of the group is well acquainted.
3. The group can use the Worksheet for this exercise. The Worksheet has two parts: the upper section (A) can be used to map the production chain and the matrix appears in the lower part (B).
4. Information for this exercise is found in Section 1.3.
5. In Worksheet A, the group will draw (using symbols, figures and arrows) the production-to-consumption route of a selected product. The map or route should include the different chain links, plus the actors and main functions in each chain link. If the group has sufficient information, price formation along the chain can also be mapped.
6. In Worksheet B, the group will complete the matrix with information on the chain links, functions, actors and organizations, and local support services (informal and formal).
7. When finished, the group will copy the map and matrix in large papers or transparencies, so that their work can be seen by all of the participants in a plenary session.
8. The group coordinator will present the results in a plenary session.

Resources needed

1. Section 1.3 of the manual
2. The Worksheet for Exercise 1.1
3. Paper and pencils
4. Flip chart, or overhead projector and transparencies
5. Magic markers, or markers for transparencies

Time required: 1.5 hours

Exercise 1.1 Mapping an Extended Product Chain – Worksheets A and B

Production Chain Matrix

Production Chain:		Territory:	
Chain Link	Functions	Actors and Organizations	Local support services

Exercise 1.2 Envisioning Potential Agro-Industrial Products

Objective

- The trainee will be able to envisage possible agro-industrial products derived from a basic commodity and will think of its corresponding use, markets and the type of processing required.

Instructions for the Facilitator and Trainees

1. Form groups of four participants, by territory if possible, and select a coordinator.
2. Choose a basic commodity or staple food product from the territory with which at least one member of the group is well acquainted.
3. The group can use the matrix in the Worksheet for this exercise.
4. Information for this exercise is found in Section 1.4.
5. The group will complete the matrix in the Worksheet with a list of potential agro-industrial products (real or imagined) derived from the chosen commodity, together with its corresponding use, target market and required processing or transformation.
6. When finished, the group will copy the matrix in a large paper or transparency, so that their work can be seen by all of the participants in a plenary session.
7. The group coordinator will present the results in a plenary session.

Resources needed

1. Section 1.4 of the manual
2. The Worksheet for Exercise 1.2
3. Paper and pencils
4. Flip chart, or overhead projector and transparencies
5. Magic markers, or markers for transparencies

Time required: 1.0 hour

Exercise 1.2 Envisioning Potential Agro-Industrial Products - Worksheet

Agro-Industrial Product Matrix

Basic commodity:		Territory:	
Derived Agro-industrial Product	Use	Target market	Processing required

Exercise 1.3 Defining Growth Strategies for a Territory

Objective

- The trainee will be able to use the Product-Market Growth Matrix to define possible growth strategies in a territory, based on existing and potential agricultural and agro-industrial products.

Instructions for the Facilitator and Trainees

1. Form groups of four participants, by territory if possible, and select a coordinator.
2. Choose a territory or region with which at least two members of the group are well acquainted.
3. Make a list of the main three agricultural or agro-industrial products in that territory.
4. Then make a list of the principal two geographic and industrial markets for the regional products selected in Point 3.
5. The group can use the matrix in the Worksheet for this exercise.
6. Information for this exercise is found in Section 1.5.
7. The group will complete the first matrix and the second Product-Market Growth Matrix in the Worksheet. In the latter matrix, the group will place a short list of existing and potential agricultural and agro-industrial products in each of the four growth strategies. The group will attempt to complete both matrices based on real information and logical decisions, but may invent or formulate information as required.
8. When finished, the group will copy the matrix in a large paper or transparency, so that their work can be seen by all of the participants in a plenary session.
9. The group coordinator will present the results in a plenary session.

Resources needed

1. Section 1.4 of the manual
2. The Worksheet for Exercise 1.3
3. Paper and pencils
4. Flip chart, or overhead projector and transparencies
5. Magic markers, or markers for transparencies

Time required: 1.5 hours

Exercise 1.3 Defining Growth Strategies for a Territory – Worksheet

Preliminary Matrix

Territory:	
Three most important products in the territory	Two most important markets for the territory's products
1	1
2	2
3	

Proposed Regional Growth Strategies

	Existing products	New products
Existing markets	Market penetration Products:	Product development Products:
New markets	Market development Products:	Diversification Products:

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Section 2

Designing and Executing the Rapid Market Survey



Section 2. Designing and Executing the Rapid Market Survey

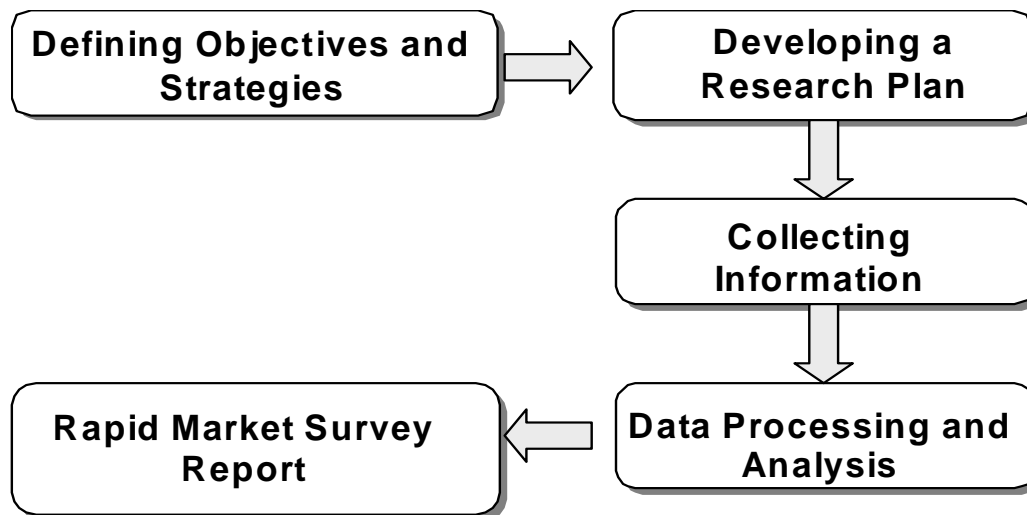
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Section Structure



Objectives

General objective

- After studying this section, the participant will be able to facilitate or coordinate the research team planning and executing a Rapid Market Survey for a given region or territory, with the participation of representatives of small-scale rural producers.

Specific objectives

The participant will be able to:

- Explain the objective and strategies of the Rapid Market Survey
- Describe the main aspects that should be considered when developing a research plan
- Determine the number of research tools needed
- Define the key questions for the survey
- Develop a questionnaire according to recommendations provided in this section
- Explain the prerequisites and procedures for collecting primary and secondary information

- Explain how to obtain the first market option portfolio
- Explain how the content of the final report of the Rapid Market Survey can be organized

Orienting Questions

1. What is the purpose of market research when it is conducted for a given territory or region?
2. Can you think of any similarities between a small farm or region and an enterprise?
3. Who should perform market research for a given territory or region?
4. Can secondary information, by itself, be sufficient for a Rapid Market Survey? Please explain your reasons.
5. What specific key information should be obtained about a product that one wants to sell or market?
6. What kind of information can the marketing channels and retail outlets provide on the products they sell?

Introduction

As already mentioned in the general introduction to this manual, several reasons can explain the growing importance of a sustainable link between the small-scale rural producer economies with growth markets.

Market research is a tool that helps identify market trends and opportunities. This discipline is usually associated with large commercial companies, but the truth is that public and private rural development agencies, rural communities, farmer organizations, and rural agro-enterprises can also benefit from its implementation. Market research can be designed in such a way that it adapts to the economic capacities of the interested parties. It's important that these sectors have access to information about the topic and conduct research according to their economic capacities.

The sequence we propose for this section is the same as that used for market research. It begins by defining objectives and strategies; continues with the establishment of a research plan, collection of primary and secondary information, and data processing and analysis; and ends with data interpretation and the final report.

It's convenient to emphasize the following aspects at this moment:

- The research team should have a facilitator or coordinator with at least some business and marketing background, and the participating members should be trained adequately before starting this market opportunity identification process. The representatives of the small-scale rural producers will have already been selected and trained.
- This research process will focus on obtaining information from key actors in the marketing chain, relative to demand trends and purchasing conditions for relevant products. These key actors can be, among others, middlemen, several types of retailers, and processing firms.
- Although most market research concentrates in studying consumer habits and opinions, in this case, for reasons of span, time and costs, the consumer is not considered directly. A basic supposition of this Rapid Market Survey is that commercial actors are permanently interpreting consumer and buyer behavior and are therefore familiar with their trends in demand and preferences.
- As a prerequisite, it is important that the research team study the previous section of this manual.
- The final output of the Rapid Market Study is an initial market option portfolio that is especially pertinent for a given territory. *It is convenient that the number of market options be limited to a maximum of ten, so that the magnitude of its subsequent characterization is manageable in terms of time and cost.*

2.1 Defining Objectives and Strategies

2.1.1 Objectives

The main objective of this Rapid Market Survey is to identify market opportunities for the territory or region under consideration. These market opportunities will be detected in local, regional, national or international markets, depending on the geographic scope of the Rapid Market Survey. The market opportunities can be agricultural, livestock, forest, handicraft, and agro-industrial products. These products can be traditional or new, potential products for the region of interest.

The second objective of the survey aims to capture information on purchasing requirements and conditions for products that represent market opportunities. Specifically, the minimum buyer requirements that the researcher should determine are product quality, quantity required, minimum purchase levels, purchasing frequency and purchase price. The researcher should also record the name, address and telephone of the commercial contacts.

Although this methodology emphasizes tangible products (goods), it can also be applied to intangibles (services), such as environmental, cultural and gastronomic services, in addition to tourism.

2.1.2 Defining strategies

Once the objective is known, the question is how to achieve it, or what strategies are required. For this, work conducted for the first module of the “Territorial Orientation to Rural Business Development” series, is essential. In concrete, a biophysical and socio-economic profile of the targeted territory should be available, offering complete, summarized information. If this basic information for a given territory is not available, the research team should proceed to collect it before continuing with the market research procedure.

Additionally, the previous section provides valuable information, especially on the product-market growth strategies and food consumption trends, which the research team should have in mind while determining the research strategy.

The research team can now proceed and propose the strategy for the Rapid Market Survey. The following strategy is recommended. *It should be noted that here the word ‘product’ denotes agricultural, livestock, forest, handicraft or agro-industrial goods. It can also mean an intangible product such as a service.*

1. **Detecting products presenting *high or intermediate growth in market demand*, and studying the corresponding purchase requirements.**
2. **Identifying products *whose demand exceeds supply*, corresponding months of shortage, causes, and examining the corresponding purchase requirements.**
3. **Studying demand trends for products *that are being imported into the territory*, and for those in high or intermediate demand, examine the corresponding purchase requirements.**
4. **Studying demand trends for *products associated with the conservation of natural resources*, and for those in high or intermediate demand, examine the corresponding purchase requirements.**
5. **Studying demand trends for products *in which the territory of interest enjoys a competitive advantage*, and for those in high or intermediate demand, examine the corresponding purchase requirements.**
6. **Studying demand trends for traditional products of the region under *consideration*. In this case, if the product is in fresh form or is lacking value aggregation, demand trends should also be studied for agro-industrial products derived from the commodity. The corresponding purchase requirements for both types of products should be examined.**

The previous six strategies guarantee that the researchers consider both (a) traditional, existing products in the region as well as (b) new, potential products exhibiting high demand growth, periodical scarcity, or which are imported into the territory, or where the region has competitive advantages.

The research team has to develop product lists for each of the Strategies 3 to 6, before developing the research plan. Strategies 1 and 2 do not require this prerequisite, because in fact, the two lists will be one of the principal outputs of the Rapid Market Survey. A word of caution is convenient here, in the sense that the total number of products in the four preliminary lists should not exceed 15 items. Otherwise, the market research process can become unmanageable in terms of time and cost requirements.

These strategies are pertinent for local, regional, national, and international markets. However, obtaining primary information on domestic markets is easier and less expensive than that on international markets, especially in the case of developed countries. Research on domestic markets should therefore be conducted separately from that on foreign markets.

For the latter, research should be specifically focused on obtaining secondary information from specialized governmental agencies (foreign trade, promotion of exports) and the private sector. Or, if economically viable, consultants specialized in developed-country markets, should be contracted. Internet is another, increasingly useful, source of market data.

These six research strategies are described below in more detail.

2.1.3 Detecting products with a high or intermediate growth in market demand, and studying the corresponding purchase requirements

This research strategy is perhaps the most important one of the six. Products can exhibit several demand growth trends. Growth is usually measured as a percentage of annual increase in sales for a product; this percentage is compared to the local annual population growth rate to classify it as high, medium or low. Growth can be high (more than 6% per year), intermediate (from 4% to 6%), low (from 1% to 3%, which is similar to population growth rate), nil, or negative.

Above all, the research team will be interested in detecting those products presenting high or intermediate growth. This type of growth is usually characteristic of innovative products, or of traditional products that respond well to current trends in consumer habits and industrial preferences.

When dealing with this strategy, the research team should focus on studying growth rates for product categories that are currently important, or viable, for small-scale rural producers in the territory under consideration. Products such as fruits, vegetables, livestock- and fish-derived (meat, dairy products, etc.), fresh and processed roots and tubers, and basic grains should be considered. If pertinent, biodiversity-related products such as spices, aromatic and medicinal plants, essential oils, and natural colorants, should also be taken into account.

2.1.4 Identifying products whose demand exceeds supply, corresponding months of shortage, causes, and examining the corresponding purchase requirements

Scarce products should also be identified. A product may become scarce because demand has surpassed product supply, it's off-season, or the product suffers problems such as diseases, pests, and drought. Although these products can represent an opportunity, identifying the underlying causes is important because these can be temporary, such as off-season demand or production problems, or more permanent, such as growth in demand.

It is important to examine when product shortages occur during the year. Some products present annual shortage patterns that repeat, although this is not always the case. If available, the research team should consult price series to identify these possible patterns. In months of shortage, product prices increase and off-season production can be a good market opportunity (or window of opportunity) for the region.

In this strategy, the research team will identify products with supply constraints and, as in the previous strategy, should focus on product categories that are currently important, or viable, for small-scale rural producers in the territory under consideration. The products suggested in the previous strategy are also pertinent for this one.

2.1.5 Identifying demand trends for products that are imported into the territory and, for those in high or intermediate demand, examine the corresponding purchase requirements

Substitution of imports can represent a good growth strategy for a territory, given that local production usually represents savings in transportation and post-harvest losses. Tropical, mountainous, regions generally offer different altitudes and climates in which many different products can be grown.

For this strategy, the research team has to first prepare a list of key products that are being imported and which can be produced in the territory. This type of information can be obtained using secondary information in agricultural wholesale centers, government statistics or by interviewing key informants. Afterwards, demand trends will be examined as well as purchasing requirements.

2.1.6 Studying trends in demand for products associated with the conservation of natural resources, and for those in high or intermediate demand, examine the corresponding purchase requirements

This strategy, closely related to natural resource management, can be considered as optional. A large percentage of small-scale rural producers worldwide inhabit fragile ecosystems such as hillsides and tropical rain forests, where the probability of erosion and environmental degradation is high. If products directly or indirectly

related to conservation (e.g., live barriers, grasses, and cover crops) are available and represent a market potential, then the adoption of conservation practices by small-scale rural producers is more viable. Many production systems have been proposed in the past, but their economic feasibility had not been studied.

To continue with this strategy, a list should be made of the products directly or indirectly associated with several tools designed to conserve natural resources. For example, if the community prefers live barriers of forage grass, the local or regional demand for related products, such as milk and dairy products, should be studied.

2.1.7 Studying demand trends for products in which the territory of interest enjoys a competitive advantage, and for those in high or intermediate demand, examine the corresponding purchase requirements

The difference between a 'comparative' versus a 'competitive' advantage is that the former term includes only the biophysical aspects of a territory, such as climate, soils, roads, location, etc., whereas the latter also comprises the human and social factor (local knowledge, skills, organization). In this manual we refer to 'competitive advantage', which combines human, social and organizational factors with the region's biophysical characteristics. The inhabitants of a region will have a competitive advantage when its product offers higher quality, a lower selling price, or a unique, differentiating characteristic.

This strategy is important, but requires that the research team develop a list of products where the territory and its inhabitants may have a competitive advantage. The team will probably require the support of an expert for this.

The potential for obtaining competitive advantages is sometimes obvious. For example, many exotic, native products (fruits, medicinal plants, nuts, and raw materials) found in the Amazon region are not produced in other regions. In this case, the presence of a comparative advantage is clear, but only after the effective intervention of the human and social capital, will it really become a competitive advantage.

Small-scale rural producers have the potential of reaching competitive advantages for some labor-intensive agricultural products such as fruits, vegetables, spices, medicinal and aromatic plants, roots and tubers, organic products, fibers, or small animals. For example, 80% of fruit production in Colombia is estimated to come from small-scale rural producers (Asohofrucol 1998, personal communication). Competitive advantages may also exist for woven fabrics, handicrafts, and other similar items.

A key aspect of the territorial competitiveness analysis would be to determine whether the region has a competitive advantage in the production of its most important traditional staples or commodities. If the answer were positive, it would be a good idea to propose the establishment of agro-industries. Another option would be to promote regional brands for these products.

2.1.8 Studying demand trends for traditional products of the region under consideration. Demand trends should also be studied for agro-industrial products derived from the commodity. The corresponding purchase requirements for both types of products should be examined.

This strategy is essential because it refers to products already existing in the targeted region and its implementation ensures that the Rapid Market Survey will not ignore these traditional products. Some valuable marketing opportunities for traditional products may be identified, including the generation of aggregate value and the use of regional brands.

The application of the Product-Market Matrix's conceptual framework is especially pertinent for this strategy. For example, a coffee-producing region can produce its own coffee ready for consumption, using a regional brand. This would be an example of product development or diversification. Likewise, a hillsides region in southwestern Colombia has two rural agro-industries: cassava-starch factories and sugar-cane mills. The former produce sour cassava starch, used to prepare a local type of bread. The sugar-cane mills produce a sort of brown, whole-sugar brick (panela). When the demand for both products was studied, two market opportunities were found: (a) a presentation of high-quality sour starch directed to the snack-producing industry, and (b) pulverized 'panela', for use as a nutritious substitute for white sugar. Thus, a traditional product facing a decreasing or static market can be revamped and inserted into a modern, high-growth market.

At this point, it is also important to include uncommon products that are characteristic of the region's biodiversity. In this case, key informants (e.g., technicians, entrepreneurs, and professors) should be enlisted for help in preparing a list of the region's plants that can be useful as aromatic or medicinal plants, spices, colorants, oils, or essential oils. Senior community members can serve as key informants for identifying useful products that have disappeared from the region or are becoming extinct.

An example of this last case is the shrub *Myrica cerifera* (also called 'laurel de cera', bayberry, or wax myrtle). A type of natural wax is extracted from this shrub and used in the production of 'panela' and rustic candles. This shrub has disappeared from the most mountainous regions in southwestern Colombia.

2.2 Developing a Research Plan

Once the objectives and strategies have been defined, the research team will now proceed to plan the Rapid Market Survey to ensure the efficient fulfillment of the objectives established. Figure 2.1 presents the recommended planning steps.

2.2.1 Secondary information requirements

Secondary information is the data that is already available, but which may be outdated. Although secondary information contributes greatly to market surveys,

primary information is probably more important. To take full advantage of the potential contribution of available secondary information, the products lists for Strategies 3 to 6 mentioned in Part 2.1.2, should be ready. Then, the search for secondary information can be planned.

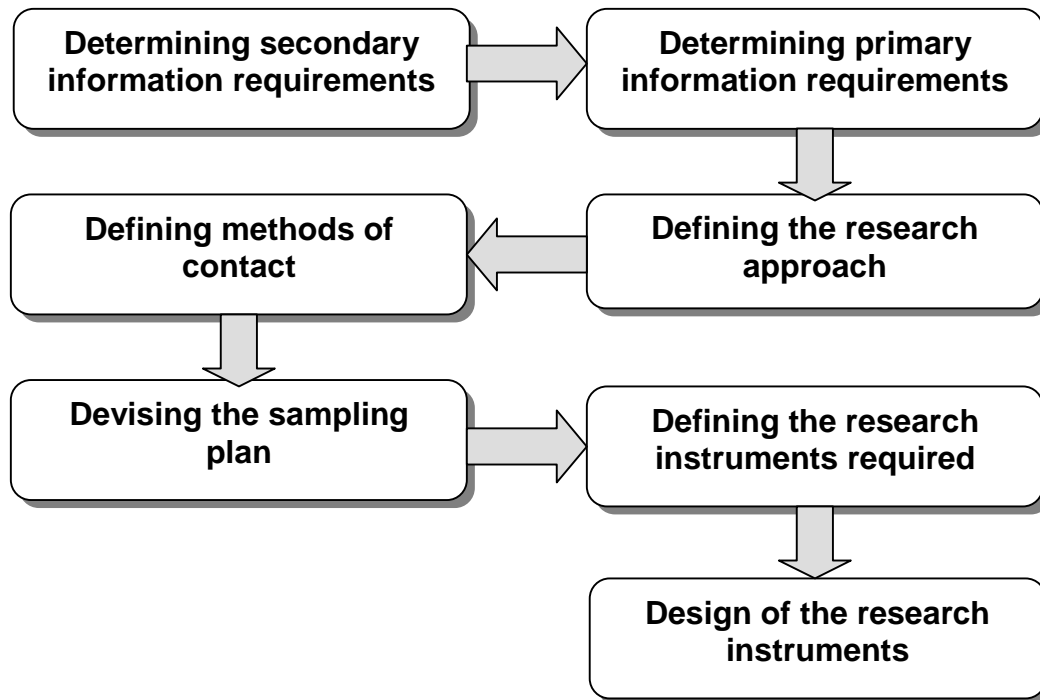


Figure 2.1. Steps for Planning the Rapid Market Survey

Secondary information is especially important when studying international markets, especially in the case of developed countries. Information should be up to date because market processes are dynamic and changing. This type of information should therefore not be more than two years old. A list of possible sources of secondary information is given below, in Part 2.3.1, among which Internet is very important. The web page of CIAT’s Rural Agro-Enterprise Development Project contains a Fair Trade Information System in which the researcher can find a directory of commercial contacts.

Furthermore, secondary information related to price series at either the wholesale or retail level should be sought for targeted products. Such series can be used to determine the degree of stability of a product's prices, essential information for the small-scale rural producer who, because of his/her economic fragility, has a very low risk capacity. The more stable a product's prices are, the lower the risks for the producer. Monthly price series can also suggest times of scarcity, when prices tend to be higher.

2.2.2 Primary information requirements

Primary information is more important in market surveys because secondary sources do not offer all the necessary up-to-date information. All of the strategies proposed in Part 2.1.2 require primary information. As already mentioned, the key primary information to be sought in the Rapid Market Survey consists of market demand trends, shortage periods, and basic purchasing conditions, such as quality, quantity, frequency and price. Part 2.2.9 provides a list and examples of key questions.

Obtaining primary information for export markets is optional, depending on the feasibility of these markets for the targeted region and the availability of funds to carry out the research or contract a specialized consultant. The consultant should be familiar with the markets of at least the European Union, the United States, and Japan. Different organizations belonging to the Fair or Alternative Trade (i.e., commercially related to rural economies) must also be contacted.

In the case of markets of neighboring countries, primary information can be obtained at a moderate cost, for example, in Central America, where countries are relatively small and trade in agricultural and agro-industrial products between neighboring countries is important. One way of accessing market information of neighboring countries is through intermediaries who buy in one country, then sell in others.

2.2.3 Research approach

Surveying is the most adequate research approach because descriptive data can be obtained. Surveys can be structured or unstructured. Structured surveys use questionnaires with lists of questions that are asked in the same sequence and manner to all interviewees. They are preferred for quantitative studies and are easier to process.

Unstructured surveys or guides, consisting of a list of topics that should be covered by the interviewer, are used more in qualitative studies. They are more flexible as they allow the interviewer to direct the interview according to the replies.

Research can also be conducted by observation, which consists of collecting primary information by observing people, events, and situations.

2.2.4 Methods of contact

Information can be requested by traditional mail, electronic mail, phone, or in person. The two last alternatives are recommended. A mailed questionnaire is inflexible and the reply rate, at least in developing nations, is quite low. Phone interviews can be a valid option to contact people that cannot be accessed personally. The personal interview is the best method of contact. Interviews can be conducted individually or in-group; the latter are also called focus group sessions. Individual interviews are more common in quantitative studies but more expensive, while focus groups are much more popular for qualitative studies.

2.2.5 Sampling plan

Because the Rapid Market Survey does not focus on contacting consumers directly but rather on surveying actors of the marketing channels and industry, the targeted population is not so extensive. Hence, the representative sample covers a larger proportion of the total population and the conclusions are likely to be more precise.

Several samples of marketing channel actors will have to be selected for the survey. When designing the sample, the following decisions must be made: (a) who should be interviewed (sample unit); (b) how many people should be interviewed (sample size); and (c) how will they be selected (sampling procedure). Selection can be done at random among the entire population (probability sample), or among people from whom it will be easy to obtain information (convenience sample). A specific number of people from different categories or groups (quota sample) can also be interviewed.

For our purposes, the sample will consist of a list of contacts that includes, among others, local and regional intermediaries, wholesalers and retailers in wholesale supply centers, heads of purchases for supermarkets at the regional or national level, officials of agro-industries and other companies, and retail stores. If contacts are few and relatively close to each other, then all can be interviewed. But if they are numerous or distant, then a representative sample should be chosen; for this case, a quota sampling procedure is recommended.

For example, the research team may decide to contact, in the area covered by the survey, all of the supermarket chains, five processing enterprises, ten corner stores, ten intermediaries, and fifteen market retailers. Identifying pertinent population segments can stratify the quota sample; for example, corner stores can be segmented according to the income level of the neighborhoods where they are located.

In addition, a list of contacts necessary for obtaining pertinent secondary information should be made. The list usually includes public or private sector officials involved in foreign trade, export promotion, or economic development; staff of pertinent trade associations; and chambers of commerce (see Part 2.3.1).

2.2.6 Research tools

The questionnaire and the interview guide are the key tools for the Rapid Market Survey. A questionnaire consists of a series of carefully prepared questions in a logical sequence, which the interviewee should answer. Questions may be open or closed. Open questions allow the interviewee to answer the question with his or her own words. Closed questions include all possible responses in the questionnaire, which are chosen by the interviewee. Examples of closed questions are those of multiple selections or of scoring against a scale. Questionnaires with closed questions are easier to process, but open questions are widely used also because it is impossible to anticipate all possible answers to questions. In general, questions should be easy to understand, so wording has to be kept simple.

After designing the questionnaire, two or three pilot interviews should be conducted to identify problems, such as questions that are misunderstood, incorrect question sequence, length of the questionnaire, etc.

Interview guides are used in unstructured surveys, which seek to direct the interview according to the replies. They usually consist of a list of issues that the interviewer should take into account, but without entering into much detail. This tool allows great flexibility. They are very useful for qualitative surveys, or when interviewees are uneducated or lack sufficient time for the survey.

It may be necessary to prepare different tools, either questionnaires or interview guides, for each type of actor to be interviewed. For example, interview guides may be more practical for intermediaries, while questionnaires should be prepared for heads of purchases of supermarket chains and food-processing companies or agro-industries. A different questionnaire or interview guideline may have to be developed for each agro-industry, according to the product involved. Simple interview guides should also be prepared for use with contacts, such as government officials, officials of chambers of commerce, and members of trade associations, when secondary information is being sought.

The research team can prepare a matrix similar to the one in Table 2.1 as an aid for determining the number of questionnaires or interview guides required for the Rapid Market Survey. Before building this matrix, the research team must have prepared short product lists for Strategies 3 to 6 mentioned in Part 2.1.2. This step is a prerequisite for determining which products should be covered in the interviews and who are the corresponding contacts. A similar matrix can be prepared to plan the search for secondary information.

The columns of the Table 2.1 research tool matrix represent the six different strategies of the Rapid Market Survey and the rows, the contacts that should be interviewed. The tool matrix can be used in two complementary ways. First, it can help the research team visualize which contacts should be interviewed for each strategy. Or the tool matrix can be used to decide on which strategies to consult each one of the types of contacts. In general, a contact can be consulted relative to more than one strategy, and the execution of each strategy will require interviewing more than one type of contact. The challenge for the research team is to obtain the necessary information with the least number of research instruments, either questionnaires or interview guides.

The research team should be aware that some contact types, such as intermediaries and wholesalers, will probably have information on only a limited number of products, because they tend to be specialized. Other contact types, such as heads of purchases for supermarkets and market place retailers will probably have information on a wide range of products. This implies that the latter contact types would be ideal interviewees for Strategies 1 and 2. In the case of processing firms, if they market a wide range of products, they will be able to provide information on many different

products. However, this will not always be the case, since some processing firms are also specialized in one or two products.

Table 2.1. Matrix to Determine Research Tools

Type of Contact	Research survey strategies					
	1. Detect products with high or medium growth in demand	2. Identify products that are scarce	3. Study demand for products that are imported into the territory	4. Study demand for products associated with natural resource mgt.	5. Study demand for products in which the region has a competitive advantage	6. Study demand for traditional and biodiversity products
Intermediaries or middlemen						
Agricultural wholesale centers						
Marketplaces: wholesalers and retailers						
Heads of purchases for supermarkets						
Food-processing companies						
Corner store retailer						
Shops and retailers						

2.2.7 Scope or components of the research plan

Table 2.2 indicates the scope or broad work areas of the Rapid Market Survey, specified with capital letters. As mentioned before, the emphasis on components will depend on established priorities and on available funds. However, components A, B, and F are considered priority. In a case like that of Central America, component C would be added to this list. The other components would be regarded as optional and so appear in parentheses.

Table 2.2. Scope or Components of the Research Plan

Type of market	Types or sources of information	
	Primary	Secondary
Domestic market	A	B
Markets of neighboring countries	C	(D)
Markets of developed countries	(E)	F

2.2.8 Designing research tools or instruments

A series of practical recommendations can be made on designing questionnaires and interview guides to obtain primary information (see Exercise 2.2).

- As already mentioned, some questionnaires and interview guides could be separated into sections corresponding to two or more survey strategies, as illustrated by the tool matrix in Table 2.1.
- In other cases, tools would focus on a single survey strategy. For example, in the case of Strategy 6, focusing on studying the demand for traditional products, let's suppose that two traditional products, corn and cassava, will be studied. The tool matrix suggests that specific instruments, oriented towards contacts and companies that sell, purchase, and process one or both of these products, should be designed. These instruments may include intermediaries and agro-industries.
- Continuing with the previous example, the matrix also indicates that a section can be added to study corn and cassava trends in the tool for intermediaries, heads of purchases for supermarkets and agro-industries.
- As mentioned in Part 2.2.2, the questionnaires and interview guides should include, for all listed products and for those exhibiting high growth rates or scarcity, questions with respect to basic purchasing conditions, such as quality requirements, quantity purchased, frequency of purchase, prices, required varieties and packaging.
- This information will be used when defining the market option portfolio, which is the main output or result of the Rapid Market Survey. This information will also come in handy during the subsequent phase (market option characterization) of the market opportunity identification procedure.
- Each instrument should have a name or title identifying it, for example, 'Questionnaire for Bean Intermediary', and a code if necessary.
- The first part of a tool should identify the contact or source of information; his/her position; the company's name, address, phone and e-mail; date of interview; and name of interviewer. This information is not only important for data processing but also for monitoring the survey.

- The different sections of a tool should be clearly identified and separated. Sections may correspond to survey strategies or to different products.
- All questions should have a number that identifies them.
- Sufficient space should be left below the questions so that the interviewer can write the answers.
- Questions will usually be open, although closed questions will, on occasion, be useful.
- All the tools, and certainly the more important ones, should have been previously tested with at least two contacts.
- The questionnaire should include precise instructions in **bold type** to avoid confusing the interviewer. Sometimes **Yes** or **No** questions will help the interviewer determine whether he/she should jump a question or set of questions. For example, an interviewer asks whether the interviewee buys or sells corn, and is told 'no'. The interviewer therefore does not need to continue asking about this product and goes on to another part of the questionnaire.

2.2.9 List and examples of key questions

Table 2.3 presents categories of key questions that are recommended for each research strategy. Appendix 1 of this manual presents a thorough list of pertinent questions for the Rapid Market Survey, from which the research team can choose from, according to their needs. The ten most important questions appear in bold.

It is important to remind the research team that there are no preliminary product lists for Strategies 1 and 2. This means that in these two cases, the questions have to be formulated with no product in mind. In contrast, Strategies 3 to 6 do have preliminary product lists, which implies that for these cases, questions will be prepared with specific products in mind.

Usually, designing questions is not difficult, but neither is it as easy as one may think. The meaning of a question may be clear to whoever makes it, but confusing to other people. When planning a question, the ease of annotating the answer should also be taken into account. Likewise, the questionnaire should not be too lengthy.

Examples of how to formulate the questions proposed in Table 2.3, for detecting high-growth and scarce products are given below. The questions may be asked for categories of products (such as fruits, vegetables, and flours) or for specific products (such as banana, string beans, and corn flour).

Sample questions for a questionnaire

a. Theme: Products with high or intermediate growth in demand

- The volume of sales of _____ in your chain of supermarkets this year was greater (+), equal (=) or less (-) than last year's volume? _____
- More or less by what percentage? _____
- What products presented the highest increase in demand? Give the percentage in rounded figures.
 1. _____ %
 2. _____ %
 3. _____ %
 4. _____ %

b. Theme: Products in scarce supply

- Is it now difficult to obtain any type of _____?
- Yes [] **Go to Question No. ____**
- No [] **Go to Question No. ____**
- What specific product or products are in scarce supply? In which months?
 1. _____
 2. _____
 3. _____
 4. _____
- Why is this product (or these products) scarce? (keep the same order.)
 1. _____
 2. _____
 3. _____
 4. _____

Table 2.3. Key Questions for each Research Strategy

Strategy	Key Questions		
	Annual growth in demand?	Is it ever scarce? When? Why?	Which are the purchase conditions?
1. Products with high or medium growth in demand	X		X
2. Scarce products		X	X
3. Imported products	X	X	X
4. Environmental products	X	X	X
5. Products with competitive advantage	X	X	X
6. Traditional and biodiversity products	X	X	X

Table 2.4 presents the key quality aspects to be considered for grains, fruits and vegetables. The research team should be aware that quality requirements are stricter for fresh produce to be sold directly to final consumers, than for products to be used as raw materials for transformation in agro-industries.

Table 2.4. Quality Aspects of Grains, Fruits and Vegetables

Grains	Fruits	Vegetables
<ul style="list-style-type: none"> ▪ sanitary condition ▪ texture ▪ color ▪ cleanliness ▪ moisture ▪ odor ▪ yield in bakery ▪ flavor ▪ size ▪ luster 	<ul style="list-style-type: none"> ▪ sanitary condition ▪ color ▪ cleanliness ▪ maturity level ▪ freshness ▪ juiciness ▪ size ▪ sweetness or Brix grade ▪ acidity ▪ luster 	<ul style="list-style-type: none"> ▪ sanitary condition ▪ color ▪ cleanliness ▪ maturity level ▪ freshness ▪ juiciness (for some) ▪ size

In addition, Table 2.5 presents a practical questionnaire in matrix format to identify the key purchasing conditions or requirements for products of interest. As already mentioned, Appendix 1 offers a longer list of questions from where to choose from. This matrix format saves paper and is more convenient and easier to use for the interviewer.

Table 2.5. Matrix Format for a Questionnaire on Purchase Conditions

Product	Purchasing conditions or requirements - 1			
	Required quality aspects	Preferred variety of product	Preferred presentation or packaging	Unit purchase price

Product	Purchasing conditions or requirements - 2			
	Method of payment	Minimum volume purchased per supplier	Preferred frequency of purchase	Minimum acceptable supply continuity

2.3 Collecting Information

Once the research plan has been developed, the questionnaires or interview guides designed and tested, the next step is to gather information.

2.3.1 Sources of secondary information

Before collecting secondary data, you should check that:

- The products corresponding to Strategies 3 to 6 in Part 2.1.2 have been defined;
- The priorities for the research plan, appearing in Table 2.2, have been determined; and

- The corresponding list of sources of secondary information has been prepared.

Table 2.6 presents a list of potential contacts for acquiring secondary information.

Information centers of wholesale supply centers and marketplaces are good sources for obtaining price series at either the wholesale or consumer level for targeted products. Economic and agricultural publications and agricultural and livestock and economic sections of newspapers can be good sources of information on markets and prices. Finally, hiring a consultant to help acquire secondary information may be justified.

Table 2.6. Sources of Secondary Information

<p>Domestic market</p>	<ul style="list-style-type: none"> • Information centers of wholesale supply centers and marketplaces • Chambers of Commerce • Development agencies • Trade Associations • National, departmental, provincial, or municipal governments • Press, specialized and standard publications, and journals • Private-sector companies • Internet • Consultants
<p>Markets in neighboring countries</p>	<ul style="list-style-type: none"> • Foreign trade agencies • Agencies promoting exports • Chambers of Commerce • Development agencies • Trade Associations • Press, specialized and standard publications, and journals • Private-sector companies • Internet • Consultants
<p>Markets in developed countries</p>	<ul style="list-style-type: none"> • Foreign trade agencies • Agencies promoting exports • State agencies of developed countries • Development agencies • Chambers of Commerce • Trade Associations • Press, specialized and standard publications, and journals • Private-sector companies • Internet • Consultants

2.3.2 Generalities on collecting primary information

Several recommendations are offered to ensure successful collection of primary information:

- This is not a comprehensive survey because it does not focus on consumers. No more than three to five reliable people are needed to gather this information, with the support, if necessary, of one consultant.
- Interviewers must be informed of the survey's objective and be familiar with the research tools developed.
- Interviewers must make appointments with contact people, then confirm and keep them. Appointments can be made by phone.
- Formal letters using stationery of the organization executing the survey should be used to identify and empower the interviewer. The letter should also inform of the survey's objectives and emphasize that all information will be handled confidentially.
- Interviewers should personally explain survey objectives to the interviewee and reassure him or her that all information will be handled confidentially.
- Interviewers must avoid influencing or suggesting replies.
- Interviewers must make sure that contacts specify weight, volume, and time units clearly.
- Where possible, interviews should not be very long, although, this may be, on occasion, unavoidable. An interview lasting 30 minutes is long. If it's likely to take longer, the interviewee should be previously informed and the interviewer may request that the interview be conducted in two sessions.
- Supervision of interviewers is optional, depending on the degree of confidence that exists. Supervision can be performed, mainly by phoning interviewees to confirm that they were indeed contacted.

In Parts 2.3.3 to 2.3.7 below, different contacts are described. This type of information can be useful when programming information collection.

2.3.3 Intermediaries and wholesalers

The intermediary is important at both urban and rural levels for marketing agricultural and agro-industrial products. They tend to pay cash and their quality demands are not strict. In rural areas, these middlemen may purchase products from small-scale rural producers directly in their farms or in local marketplaces. They then generally transport these products and resell them to urban wholesalers and retailers in larger regional or national markets. The research team should be aware that middlemen coming from rural areas into the city generally operate very early in the morning in marketplaces, from 2 to 6 a.m. However, if the intermediary has a warehouse in the urban marketplace, it will be possible to locate him later in the morning as well.

A sample should be selected, which can be by quota, according to the products handled. Interview guides should be used. Interviewees may have limited education and may not be articulate. Intermediaries and wholesalers usually specialize in a particular product, but can also inform about other products. Intermediaries and wholesalers will be useful informants for products related to all strategies, especially Strategies 3 to 6.

2.3.4 Wholesale supply centers and marketplaces

These locations are key sources of information because they concentrate many actors such as wholesalers and retailers, selling a wide range of products. Actors in these sites tend to pay cash and their quality demands are not too strict. In these strategic sites, data collection for the research team should focus on three main objectives:

- To visit central information centers if they exist, usually located in the market's administrative office, to obtain secondary information to identify either products with high and intermediate demand growth or scarce products, and on the other products related to Strategies 3 to 6.
- To obtain monthly price-series data for several years if possible, which may be available in such central information centers. This monthly price information will help identify the degree of monthly price variability and to determine annual patterns of low and high prices for individual products of interest.
- To interview wholesalers and retailers operating there, to identify products with high and medium demand growth and scarce products, and with respect to products corresponding to Strategies 3 to 6.

Interview guides should also be used. Once again, interviewees may have limited education.

2.3.5 Purchase centers for supermarkets

These sites can provide lots of information because supermarkets retail a vast range of products. However, the research team should be aware that supermarkets do not pay cash to suppliers, can take several months to make payments, and will probably request special discounts from suppliers to cover their promotional costs. This method of payment has important implications for small-scale rural producers: (a) they will need working capital, and (b) they will need other sources of income while they wait for supermarkets to pay them. In addition, supermarkets tend to be more demanding with respect to product quality and presentation.

In particular, supermarkets are excellent sources of information for identifying high-growth products or products in scarce supply, and in general, for all of the research strategies.

Heads of purchases are very busy people, and the research team will usually need to ask for an appointment well in advance. There may be several heads of purchase in the supermarket chain; each one specialized in a different product category. For example, purchasing of fruits and vegetables is generally the responsibility of one of them. This particular head of purchases should be definitely be contacted, because these products are very common in the small-scale rural economy.

In this case, the use of a questionnaire is recommended to facilitate collection of data on many products. However, questionnaires for heads of purchase of supermarkets will tend to be long. In this case, the research team should explain, and if necessary, make more appointments.

Several categories of agricultural and rural-sector related products sold in supermarkets are listed below:

- Basic grains sold in bulk or packaged
- Fresh fruits and vegetables
- Fresh meat and fish
- Dairy products
- Fresh and dried herbs and spices
- Flowers
- Handicrafts
- Flours and starches
- Canned and bottled fish, meat, fruits and vegetables
- Bottled products
- Frozen and refrigerated products
- Rural agro-industrial products

2.3.6 Agro-industries and food-processing companies

These actors are a good source of information for all of the survey strategies. The research team should be aware that processing firms are interested in buying low-cost, second- or third-grade agricultural products that cannot be sold as fresh produce. In fact, an excellent marketing strategy for small-scale producer organizations would be to sell first-grade products to more demanding clients such as supermarkets, second-grade fresh produce to marketplaces and third-grade products to industrial processors.

If the survey is directed only towards local companies, the research team may be able to cover the entire population being sampled. If the market survey coverage is broader, a quota sample will have to be selected in accordance with the products of interest for the market survey. Local companies can use raw materials, including fruits, vegetables, grains, milk, meat, cereals, roots, tubers, and vegetables, from small-scale producers.

The research team must identify the most suitable person to interview. If the company is small, the ideal person may be the owner, general manager, or marketing

manager. If the company is intermediate in size or large, then it is better to contact the head of purchases. These companies handle a great deal of confidential information and the interviewer must guarantee that all information given to him/her will be handled confidentially. Interviewees may be unwilling to provide information on sales volumes, but it is even more important to obtain information on annual growth rates of sales for their products and on basic buying conditions.

2.3.7 Other industries and retail stores

The observations of the previous section (Part 2.3.6) also apply to other industries and retail stores. The preliminary product lists for Strategies 3 to 6 will include a wide range of products that will surely lead the research team to contact many sorts of companies and stores. For example, in a Rapid Market Survey conducted in a pilot reference site in southwestern Colombia, a candle factory, flower shops, dairy industries, and frozen fruit-pulp producers were interviewed, among others.

2.4 Processing and Analyzing Data

After finishing the fieldwork and having collected primary and secondary data, this information is analyzed to prepare reports and fulfill the initial objectives proposed for the Rapid Market Survey.

2.4.1 Data processing

The information gathered for the Rapid Market Survey will be located in many questionnaires and interview guides, and will probably include many responses to open-ended questions. The research team will have instruments applied to intermediaries, wholesale supply centers, supermarkets, agro-industries, retailers in marketplaces, corner stores and other types of shops. There will also be documents, articles, and data on many types of products and export opportunities. These considerations indicate that the Rapid Market Survey has the characteristics of a qualitative study, which makes it difficult or impractical to process the available information, using a computerized statistical package such as SPSS.

Accordingly, it is recommended that the members of the research team, led by its coordinator, undertake manual processing of the information. This group is prepared for this task because they understand the survey's objectives and have first-hand information how the data was collected. Tables 2.2 and 2.3 offer a good basis for organizing the available information, which can facilitate information processing and analysis from the beginning. Information on opportunities for domestic and export markets should be separated.

2.4.2 Data analysis

The manual handling of data, as proposed in the previous section, signifies that the data processing and analysis activities will be simultaneous because the research team members will have to synthesize the primary and secondary information obtained, and then order it by survey strategy. The type of information obtained can be classified into these four categories:

- A list of market opportunities for the territory in the domestic market and, if included in the initial survey objectives, also for export markets. It is important to note that *to be considered a market option, the product has to exhibit high or intermediate demand growth, or has to be in scarce supply.*
- For the previous products considered as market options due to their high growth in demand, a description of trends in market demand, including the estimated annual growth rate.
- For the previous products judged as market options because of their scarceness, information on the months of scarcity and the reasons for this situation.
- For all of the previous products deemed as market options, a summary of the basic purchasing conditions (See Table 2.5).

2.4.3. Determining the first market option portfolio

As already mentioned in the introduction for this second section of this market opportunity identification manual, it is recommended that the research team arrive at *a maximum of ten market options* to keep the subsequent work manageable in terms of time and costs.

In the possible case that the research team comes up with, say fifteen or twenty market options for the territory of interest, Table 2.7 proposes a qualitative procedure to conduct a quick screening of these market options, to arrive at the target ten market options. This screening procedure consists of grading each market option, using a five point scale, with respect to a set of proposed criteria, as follows: competitive advantage (See Part 2.1.7), availability of local knowledge, estimated rate of growth or level of scarcity, fit with current production systems and current markets, and estimated level of investment. The research team can propose additional or different criteria. The opinion of the small-scale rural producers in the research team is very important when grading the market options. The market options with the lowest total scores can be eliminated. However, it is recommended that the information relative to these discarded market options be filed for future use.

Having obtained the ten market options as the main output of the Rapid Market Survey, the research team can now proceed to prepare the final report.

Table 2.7. Screening Procedure for the Initial Set of Market Options

Market option	Screening Criteria					Total Score
	Competitive advantage	Availability of local knowledge	Estimated growth rate or scarcity level	Fit with current production systems & current markets	Estimated level of investment	
	Max: 5 Min: 1	Max: 5 Min: 1	Max: 5 Min: 1	Max: 5 Min: 1	Min: 5 Max: 1	

2.5 Final Report on the Rapid Market Survey

2.5.1 Structure of the final report

Table 2.8 proposes a structure for the final report, organized by market type and strategy. Note that the products corresponding to Strategies 1 and 2 are not determined beforehand, but are identified during the Rapid Market Survey. In contrast, the products of Strategies 3 to 6 are chosen beforehand, as has already been explained.

The matrix proposes a final report with a part focused on the domestic market and another on the international market. Each part is divided into six reports, containing information on the market options for each of the research strategies of the Rapid Market Survey. However, it must be noted that given that the number of market options has been limited to ten, it is possible that one or more of the research strategies will lack market options and thus, will not appear in the final report. Each report, in turn, is divided into two sections. The first section will contain the list of market options and the reason why each has been included in the list. The second section will present the basic purchase conditions for each market option. (See also Table 2.3)

As the final report can be long, an executive summary should be prepared with the most important conclusions in accordance with the Rapid Market Survey’s objectives and original strategies, and placed at the beginning of the final report.

Table 2.8. Suggested Structure for the Rapid Market Survey's Final Report¹

Components	Part 1: Domestic markets		Part 2: International markets ²	
Executive Summary	Section A: List of market options and reasons for inclusion	Section B: Demand trends, supply constraints and purchase conditions for each market option	Section A: List of market options and reasons for inclusion	Section B: Demand trends, supply constraints and purchase conditions for each market option
Report 1 Strategy 1: Growth products	Section A: List of market options and reasons for inclusion	Section B: Demand trends, supply constraints and purchase conditions for each market option	Section A: List of market options and reasons for inclusion	Section B: Demand trends, supply constraints and purchase conditions for each market option
Report 2 Strategy 2: Scarce products	Section A: List of market options and reasons for inclusion	Section B: Demand trends, supply constraints and purchase conditions for each market option	Section A: List of market options and reasons for inclusion	Section B: Demand trends, supply constraints and purchase conditions for each market option
Report 1 Strategy 1: Imported products	Section A: List of market options and reasons for inclusion	Section B: Demand trends, supply constraints and purchase conditions for each market option	Section A: List of market options and reasons for inclusion	Section B: Demand trends, supply constraints and purchase conditions for each market option
Report 4 Strategy 2c: Conservation-related products	Section A: List of market options and reasons for inclusion	Section B: Demand trends, supply constraints and purchase conditions for each market option	Section A: List of market options and reasons for inclusion	Section B: Demand trends, supply constraints and purchase conditions for each market option
Report 5 Strategy d: Products with competitive advantage	Section A: List of market options and reasons for inclusion	Section B: Demand trends, supply constraints and purchase conditions for each market option	Section A: List of market options and reasons for inclusion	Section B: Demand trends, supply constraints and purchase conditions for each market option
Report 6 Strategy e: Traditional and biodiversity products	Section A: List of market options and reasons for inclusion	Section B: Demand trends, supply constraints and purchase conditions for each market option	Section A: List of market options and reasons for inclusion	Section B: Demand trends, supply constraints and purchase conditions for each market option

¹ Only include information on supply constraints if pertinent or applicable

² In case this market has been included in the objectives of the Rapid Market Survey

2.5.2 Contents, and drafting the final report

Below are several suggestions on content and drafting of the final report:

- Organize the report by parts, reports, and sections.
- Only include information relevant to the objectives and strategies. Where possible, detail the information on products representing a marketing opportunity for the targeted region.
- Summarize as much as possible, and avoid being repetitive. Use matrixes and tables.
- Make sure your report has a title page, a table of contents, an executive summary, a bibliography, and a list or directory of contacts or buyers.
- Specify the dates on which fieldwork was performed.
- Present information in a consistent manner, for example, matrices should have the same format.
- A summary of the final report in PowerPoint will be very useful for presenting the results.

Exercise 2.1 Determining Research Tool Requirements

Objective

- The trainee should be able to determine the different research instruments and formats required to obtain primary information in the Rapid Market Survey.

Instructions for the Facilitator and Trainees

1. Form groups of four or five, preferably by region, and name a coordinator.
2. Suppose that you are conducting a Rapid Market Survey for a given region and that you have to determine the number of tools (questionnaires or guides) required to execute all of the six strategies. Assume that the products lists for Strategies 3 to 6 are as follows:
Strategy 3. Imported products: lettuce and cabbage
Strategy 4. Products related to soil conservation: dairy products and chickens
Strategy 5. Products in which the territory has a competitive advantage: roses
Strategy 6. Traditional and biodiversity products: beans, corn and an exotic fruit
3. The information most related to this topic can be found in Parts 2.1.3 through 2.2.6.
4. Use the tool matrix (Table 2.1 or Worksheet no. 1 in this exercise) as an aid to determine the types of contacts that you will need to interview for each of the six survey strategies.
5. Decide, for each type of contact, whether you need a questionnaire or interview guide.
6. Decide, for each type of contact, whether the tool serves one or more strategies.
7. Think and write down the different tools you need in the tool matrix (Worksheet no. 1).
8. Then, in Worksheet no. 2, list the tool formats with their respective description. Make sure that the list of tools meets the needs for all six strategies.
9. Write Worksheet 2 in a large paper or in a transparency, for presentation in a plenary session.

Resources needed

- Section 2 of the manual
- Worksheets for Exercise 2.1
- Paper and pencils
- Flip chart, or overhead projector and transparencies
- Magic markers, or markers for the transparencies

Time required: 2 hours

Exercise 2.1 Determining Research Tool Requirements - Worksheet No. 1

Matrix to Determine Research Tools

Type of Contact	Research survey strategies					
	1. Detect products with high or medium growth in demand	2. Identify products that are scarce	3. Study demand for products that are imported into the territory	4. Study demand for products associated with natural resource mgt.	5. Study demand for products in which the region has a competitive advantage	6. Study demand for traditional and biodiversity products
Intermediaries or middlemen						
Agricultural wholesale centers						
Marketplaces: wholesalers and retailers						
Heads of purchases for supermarkets						
Food-processing companies						
Corner store retailer						
Shops and retailers						

Exercise 2.1 Determining Research Tool Requirements - Feedback

There can be many different answers to this exercise, and all can be correct. Contacts types like supermarkets and wholesale centers that work with many products can be interviewed relative to several strategies. Some contact types, such as agro-industries and middlemen, who are usually specialized in one or two products, can be interviewed with respect to fewer strategies. Agro-industries purchasing fruits and vegetables should be contacted for Strategies 1 and 2. Note that some tools are directed to a single strategy or product. As a rule, interview guides are used more with intermediaries and wholesalers.

Tool no.	Questionnaire (Q) or interview guide (G)	Type(s) of contact and/or product(s)	List strategies included in tool
1	Q	Heads of purchase of supermarkets	All
2	Q	Agro-industries: fruits and vegetables	Strategies 1, 2, 3 and 6
3	Q	Agro-industries: dairy products	Strategy 4
4	Q	Flower shops (retailers)	Strategy 5
5	G	Intermediaries and wholesalers: fruits	Strategies 1, 2 and 6
6	G	Intermediaries and wholesalers: vegetables	Strategies 1, 2, 3 and 6
7	G	Intermediaries and wholesalers: flowers	Strategies 1, 2 and 5
8	G	Agricultural wholesale centers	Strategies 1, 2, 3, 4 and 6
9	G	Marketplace retailers: fruits	Strategies 1, 2 and 6
10	G	Marketplace retailers: vegetables	Strategies 1, 2, 3 and 6
11	G	Marketplace retailers: flowers	Strategy 5

Exercise 2.2 Developing a Simplified Questionnaire for Studying Purchasing Conditions for a Product

Objective

- The trainee will design a simplified questionnaire for identifying key purchasing conditions or requirements for a given product of interest.

Instructions for the Facilitator and Trainees

1. Form groups of four or five trainees and name a coordinator.
2. The group should examine Table 2.5, which provides topics for key questions directed to studying buyer requirements.
3. The group will suppose both a product and a type of contact for the simplified questionnaire.
4. The group will prepare complete questions for the eight topics in the matrix columns, and make sure that the questions are easily understood, and keep vocabulary as simple as possible.
5. All questions should be open-ended, except for the question on method of payment and frequency of purchase, which can be closed. Therefore the group will think of appropriate response options to close the two questions.
6. The parts that are most related to this exercise are 2.2.8 and 2.2.9, plus Appendix 1.
7. Write the complete questions in the Worksheet for this exercise.
8. Afterwards, transfer the Worksheet content into a large paper or transparency to present in a plenary session.

Resources needed

- Parts 2.2.8 and 2.2.9 of Section 2 of this manual, and Table 2.5.
- Worksheet for Exercise 2.2
- Paper and pencils
- Flip chart, or overhead projector and transparencies
- Magic markers, or markers for the transparencies

Time required: 1.5 hours

Exercise 2.2 Developing a Simplified Questionnaire for Studying Purchasing Conditions for a Product - Worksheet

Questionnaire for Identifying Purchase Conditions for a Product		
No.	Topics	Questions
1	Required quality aspects	
2	Preferred variety of product	
3	Preferred presentation or packaging	
4	Unit purchase price	
5	Method of payment	(closed)
6	Minimum volume purchased per supplier	
7	Preferred frequency of purchase	(closed)
8	Minimum acceptable supply continuity	

Exercise 2.2 Developing a Simplified Questionnaire for Studying Purchasing Conditions for a Product - Feedback

Questionnaire for Identifying Purchase Conditions for a Product (Mango)		
No.	Topics	Questions
1	Required quality aspects	(a) Which is the list of key quality requirements for the mangoes that you purchase? (b) Is that all?
2	Preferred variety of product (optional)	(a) Which mango varieties do you buy? (b) Which variety do you prefer?
3	Preferred presentation or packaging	What presentation or packaging do you demand from your mango suppliers?
4	Unit purchase price	(a) Which is the unit of purchase for mangoes? (b) At what price per unit are you currently buying?
5	Method of payment	(closed) What is your method of payment for mangoes? a. for cash b. after one week c. after two weeks d. after one month other: _____
6	Minimum volume purchased per supplier	Which is the minimum volume of mangoes that are you willing to purchase per delivery from a given supplier? Please specify the units.
7	Preferred frequency of purchase	(closed) Which is your preferred frequency of purchase for mangoes? a. every day b. every two days c. once a week d. every two weeks e. once a month f. other: _____
8	Minimum acceptable supply continuity	Which is the minimum acceptable supply continuity expected from a given supplier?

Practice 2.1 Observing Product Categories in a Supermarket

Objective

- The trainee will observe the variety, characteristics and will make an inventory of selected agricultural and agro-industrial product categories sold in a supermarket.

Instructions for the Facilitator and Trainees

1. Form groups of four or five trainees and name a coordinator.
2. Each group will be assigned one of the following product categories:
 - Basic grains sold in bulk or packaged
 - Fresh fruits
 - Fresh vegetables
 - Flours and starches
 - Canned fruits and vegetables
 - Bottled fruits and vegetables
 - Refrigerated products
 - Frozen products
3. Trainees will place special attention to the product's packaging, label, brand and origin (if applicable).
4. Each group will make an inventory of the products in the category assigned to them, using the format in the Worksheet for this practice.
5. Each group will transfer the Worksheet format into a large paper or transparency.
6. The coordinator will present findings in a plenary session.

Resources needed

- Worksheet for Practice 2.1
- Permission from the supermarket's administration to visit the store
- Transportation to and from the store
- Note cards and pencils
- Flip chart, or overhead projector and transparencies
- Magic markers, or markers for the transparencies

Time required: 3 to 4 hours

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Section 3

Assessing and Selecting Market Options

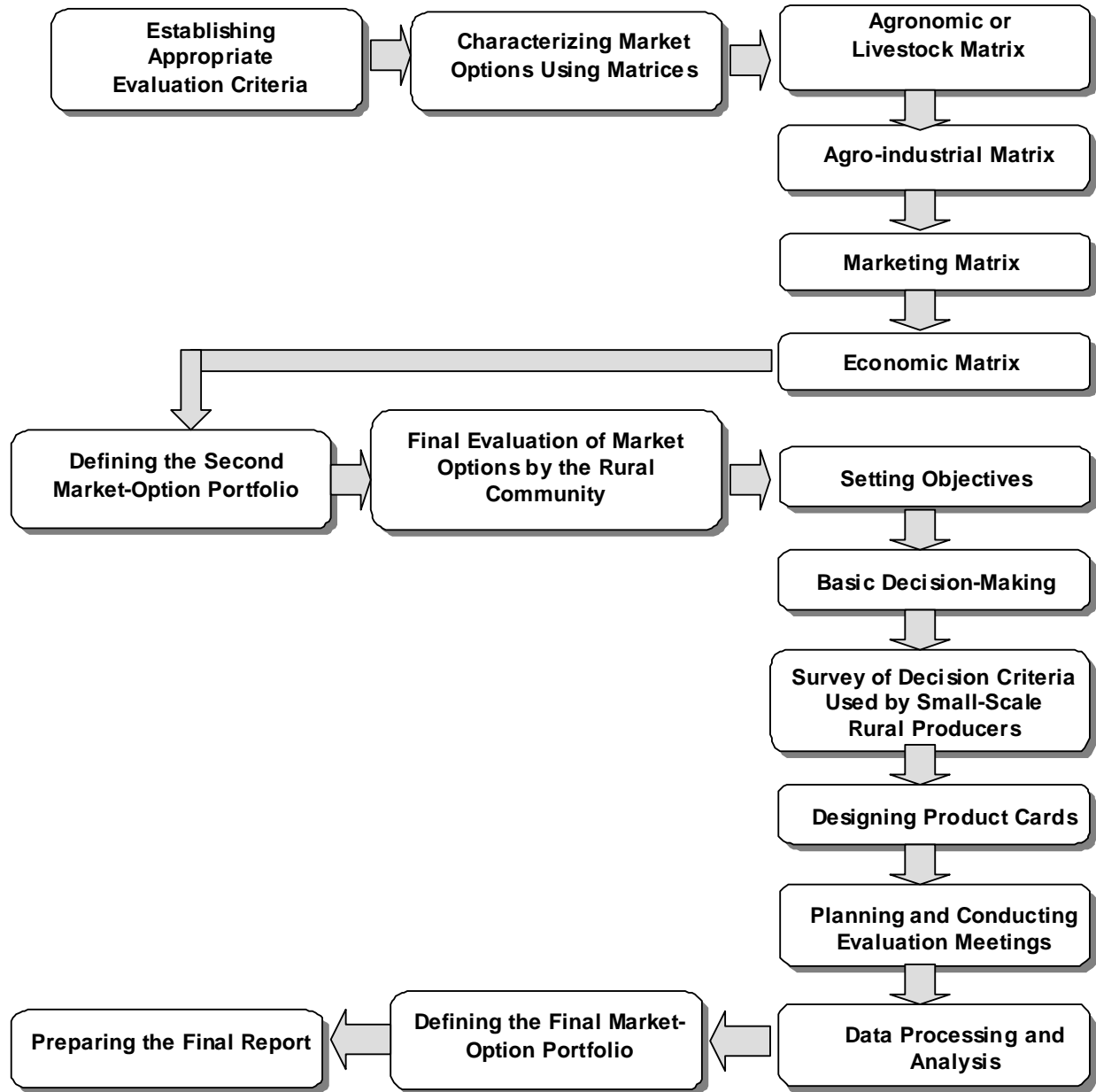


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Section Structure



Objectives

General objective

- After studying this Section, the reader or trainee will be able to assess, characterize and select market options for a given territory with input from the rural community.

Specific objectives

The reader or trainee will be able to:

- Establish appropriate evaluation criteria for screening market options for a given region
- Design and prepare several types of characterization matrices for screening market options
- List the components of a model of financial profitability and interpret the different parameters
- Explain several valid reasons for discarding market options
- Explain the objectives and execute a final evaluation of market options with the rural community
- With the aid of this section of the manual, prepare a timetable for conducting the final evaluation of market options with the rural community
- Design the different instruments required for the final evaluation of market options, including product cards

Orienting Questions

1. What social and economic differences can be highlighted between small-scale rural producers and large, commercial rural producers?
2. What aspects can make a crop or product more attractive than another one, for a small-scale rural producer?
3. What type of information should be gathered to determine whether a crop or product is feasible and attractive for small-scale rural producers?
4. In what ways can the rationale or point of view of a technician or rural development expert differ from that of a small-scale rural producer?

Introduction

The previous section, Section 2, presented a procedure for identifying marketing opportunities by conducting a Rapid Market Survey at the local, regional, national, and, optionally, at the international level. This section deals with the evaluation by the research team of these market alternatives, whether agricultural, livestock products, forest, agro-industrial or handicraft products, to select those that are most appropriate for small-scale rural producers.

Firstly, the research team must define pertinent evaluation criteria according to the client, in this case the small-scale rural producer. Secondly, relevant information on the market options will be collected and organized to characterize them, using summary agronomic, livestock, agro-industrial, marketing, and economic matrices.

Most of the information required, especially marketing information, will have been collected in the previous stage, or Rapid Market Survey; however, this characterization phase will surely demand an effort from the research team to obtain additional primary and secondary information, especially related to agronomic, livestock, agro-industrial and economic aspects.

In some cases, product characterization may clearly indicate that a market option is unfeasible for the targeted region and/or small-scale rural economy, and must therefore be discarded. It is important to underline once again, that the opinion of the representatives of the small-scale producer segment in the research team will be critical when making discarding decisions.

The resulting, screened market option portfolio is then presented to the rural community by the research team. The salient characteristics of each market option are described to the rural audience, with the aid of product cards, and then a sample of small-scale rural producers proceed to rank by preference. This procedure is based on 'concept testing', a method commonly used in the field of market research and new product development. This exercise with the rural community will probably result in the rejection of one or more of the market options presented to them, and the consequent emergence of the final market-option portfolio. *This final product portfolio is the main output of the market opportunity identification method described in this manual.*

Afterwards, one or more of these resulting market options can be the subject for application of the methodology in Module 3 of the Territorial Approach to Rural Business Development (RA-RBD). Module 3 consists of a participatory methodology for analyzing a production chain of interest and designing the ensuing action plan to strengthen chain competitiveness.

3.1 Establishing Appropriate Evaluation Criteria

The research team now has to discuss and determine which evaluation criteria to apply to select the final market-option portfolio. Taking into account the end client's profile, in this case, the small-scale rural producer, and the importance of production sustainability, the methodology proposes the following evaluation criteria:

- Feasibility of the market option in the social and economic context of the small-scale rural producer
- Attractiveness of the market option from a business and financial perspective
- Contribution to, or at least, will not harm production sustainability

However, the research team can propose other criteria. For example, other possible criteria could be the following:

- The number of rural inhabitants that can possibly benefit from the market option, in the form of improved employment, food security and income, or in other words, possible impact
- Compliance or fit with the social and cultural context and tradition

The first set of market-option evaluation criteria is described in detail below.

- **Feasibility in the social and economic context of the small-scale producer**

Small-scale producers can be distinguished from large- and intermediate-scale producers because, among other aspects, they have smaller risk capacity, less access to support services and credit, generally lack sufficient working capital, and use family labor to a significant extent. The market options selected, therefore, must be relatively simple to implement, the technological level should be low to intermediate, and initial investment and production costs should be affordable by small-scale producer organizations or groups.

This specific evaluation criterion reinforces the strategy of including small-scale rural producers in the research team that executes the marketing opportunity identification procedure. Additionally, it confirms the convenience of undertaking the final evaluation of the market-option portfolio with the rural community to identify their preferences.

The application of this criterion is closely related to official macro, meso and micro policy regarding rural development, because the feasibility of a rural business or production project will depend on the availability of local basic infrastructure and support services, including business coaching, technical assistance and credit. In this case, we assume that the government will offer modest support to the sector of small-scale rural production, a common situation in the period from 1.995 to 2.004.

- **Attractiveness from a business and financial perspective**

Worldwide, small-scale rural producers can be segmented or classified according to their degree of market orientation; for example, commercial producers who sell almost everything they produce; semi-commercial producers, who consume and sell what they produce; and, finally, subsistence producers, who consume almost everything they produce. However, all small-scale rural producers sell a percentage of their production. Some subsistence producers are forced to complement their income by selling manual labor.

The small farm and business enterprise have many points in common. They (a) sell products and/or services, (b) use and manage human resources, including family labor, (c) use natural resources, raw materials or inputs to generate products, (d) make investments, and (e) demand support services, such as technical assistance, credit, etc.

In consequence, when selecting market options, including crops, it is essential to characterize them from a business and financial viewpoint. This perspective implies an analysis of competitive advantages, growth trends in market demand, profitability levels, degree of price stability, purchasing conditions, competition (quantity, type and strategies), etc.

- **Contribution to production sustainability**

A high percentage of small-scale rural producers live in hillside areas and in humid tropical lowlands, both fragile ecosystems that are highly susceptible to degradation. Therefore, studying the possible impact of the market options relative to sustainability is important, including both negative and positive aspects. For example, planting short-cycle crops in steep hillsides and applying high levels of pesticides to guarantee the quality of fruits and vegetables demanded in the fresh market, may be extremely harmful to the soil and environment.

3.2 Characterizing Market Options Using Summary Matrices

Once the evaluation criteria have been defined, market options can then be characterized, which will require collecting pertinent information, organizing it and then summarizing it by means of agronomic, livestock, agro-industrial, marketing and economic matrices.

Matrices facilitate the comparison of the different market options. If the product is in fresh form or unprocessed, then the agronomic or livestock matrix should be used. If the market option is processed or transformed (agro-industrial) the agro-industrial matrix should be used. For all market options, the two remaining matrices, marketing and economic, should be prepared.

This characterization process has many similarities with the pre-feasibility analyses commonly used for business projects. Pre-feasibility analyses focus on determining technical, economic, managerial, environmental and social requirements for the success of a given project. After identifying these project parameters, a key output will be to conclude if the project is in fact viable or not. Likewise, market-option characterization will provide many inputs for development of future business plans, a key activity for production chain strengthening. As was already mentioned, this is the topic of the next, or third module of the Territorial Approach to Rural Business Development (TA-RBD).

Proposals for these matrices are explained below. The research team should feel free to change and improve these matrix models. Once characterized, market options can be assessed according to the already defined criteria.

3.2.1 Agronomic characterization (See Table 3.1)

Agronomic characterization is used to determine whether a given market option is viable according to biophysical conditions of the targeted region and under smallholder conditions. For example, if a region were characterized by low-fertility soils, developing agricultural alternatives requiring fertile soils would therefore be difficult or expensive. If a region has limited rainfall and lacks infrastructure for irrigation, then production alternatives must be adapted to this climatic situation. Table 3.1 presents an agronomic characterization matrix. Some components of the matrix are explained below.

Table 3.1 Agronomic Characterization Matrix

Market Option	Complete Cycle	Pre-Production Cycle	Technical Demand	Soil Requirement	pH	Water Requirement
	(years)	(months or years)	(low, average, or high)			(mm/year)

Altitude Requirement	Labor Requirement	Planting Period	Need for Irrigation	Major Pests and Diseases	Planting Density	Annual Yield
(m.a.s.l.)			(yes or no)		(no./ha)	(t/ha)

Complete Cycle is the cropping period from planting to when productivity falls below 30% of the crop's maximum potential. For short-cycle crops such as corn and beans, the complete and pre-production cycles are the same. *Pre-Production Cycle* is the cropping period from planting to when productivity reaches at least 30% of the crop's maximum potential. *Technical Demand* indicates whether the crop is tolerant (low), or requires improved technology, considerable management, and a high level of inputs (high). *Labor Requirement* is the number of workdays required per year or per cycle. It is used to determine if the market option is labor-intensive, or not. *Need for Irrigation* indicates whether the crop requires irrigation to reach production potential.

Some sources of information on crop agronomy include institutions involved in training and/or technical assistance; agricultural publications such as books, technical manuals, and technical journals; key informants, for example, producers; and professionals of the agricultural sector. Different regions or neighboring countries may have to be visited to gather information on experiences with targeted crops.

Also, secondary information available on planting density and productivity frequently refers to experiences of large commercial producers or experimental farms, which practice input-intensive agriculture. Accordingly, for production on small farms, information should be obtained from the producers themselves, or estimated as a percentage of commercial yields, even to as low as 10% or less, depending on the yields of the rural economy. This way, no false expectations of profitability are generated.

3.2.2 Livestock characterization (See Table 3.2)

This matrix is used when the market option consists of livestock production, including cattle, poultry, turkeys, pigs, sheep, rabbits, guinea pigs, or even fresh-water fish, such as tilapia in small water tanks. Table 3.2 presents a model of a livestock characterization matrix. Some components of this matrix are explained below.

In this matrix, the *Market Option* is the principal product of the livestock enterprise, such as live animals, meat, milk, eggs, etc. A *By-Product* is a secondary good that is derived from the production of the principal product; for example, organic fertilizer, skins, gelatin, etc. *Installed Capacity* is the maximum number of animals that can be sold per a given unit of time. *Number of Breeders* refers to the number of animals used for reproduction purposes to generate young animals. If the livestock system is meant to purchase young animals externally, this must be specified. In *Period of Growth* place the time between conception and birth and also the time required from birth until the animal has the appropriate selling weight.

Table 3.2 Livestock Characterization Matrix

Market Option	By-Products	Technical Demand	Capacity	Number of Breeders	Period of Growth
		(low, average, or high)			

Nutritional System	Inputs	Main Pests and Diseases	Infrastructure & Equipment	Working Capital Required	Investment	Annual Sales

3.2.3 Agro-industrial characterization (See Table 3.3)

Since agro-industry tends to be a more complex endeavor than agriculture, the agro-industrial matrix is very useful to gather, organize and synthesize necessary information. Table 3.3 presents an agro-industrial characterization matrix. Some of its components are explained below.

The *Market Option* is the reason why the agro-industrial plant is established. A *By-Product* is generally a residue generated during the operation of obtaining the main product. Agricultural by-products can be sold also, and are commonly used for animal feed or as organic fertilizer. The *Conversion Factor* is a ratio or proportion that indicates the amount of raw material required to produce a given unit of the principal agro-industrial product. For example, in the case of the dried-cassava agro-industry, the ration 2.5: 1 means that 2.5 kilograms of fresh cassava roots are needed to produce one kilogram of dried cassava chips. *Installed Capacity* is the maximum volume that can be produced in an agro-industrial plant in a given period; generally the period used is one month or one year. *Working Capital* refers to the amount of cash, in addition to the initial investment needed for the agro-industry (infrastructure, machinery, equipment, etc.), which is required to operate the agro-industry. Working capital is used to finance the variable and fixed costs of producing or purchasing a product that is sold. When the company receives payment for these products, the working capital returns to the company, and so on. The working capital requirement is a function of the variable cost and fixed cost per unit of product produced, the sales volume and the method of payment.

Table 3.3 Agro-industrial Characterization Matrix

Market option	By-products	Raw materials	Other inputs	Technical demand	Conversion factor
				(low, average, or high)	

Capacity	Machinery & Equipment	Method for Quality Control	Working Capital	Investment	Annual Sales

3.2.4 Marketing or Commercial characterization (See Table 3.4)

As mentioned before, a great deal of commercial information may have been gathered in the previous stage, the Rapid Market Survey. Commercial information includes data on trends in product demand, competition, product characteristics, markets, and purchasing requirements of clients. Table 3.4 presents the marketing characterization matrix. Some matrix components are explained below.

Current Marketing indicates whether the targeted region already produces and sells the mentioned product. *Competitors* describes the number, types and strategies of the potential competition in the business related to the market option. *Type of Client* specifies the kind of buyer identified for the market option. *Services to the Client* explains whether the client offers some type of service to his suppliers, such as credit or technical assistance. *Scope of Market* specifies whether the market is local, regional, national, or export. *Growth of Demand* classifies the market option according to its estimated annual growth rate. It is high if this parameter is above 6%; medium if its 4% to 6%, and low if its 1% to 3%. *Minimum Volume Purchased* is the least amount purchased per delivery by the buyer. This information is key for small-scale rural producers, who generally offer smaller amounts of products especially if they are not organized. *Quality Requirements* rates the level of quality demanded, as high, medium or low; it should also specify key quality aspects demanded by the buyer. *Packaging Requirements* indicates whether the client wants the product to be delivered in some type of presentation or packaging, for example, a plastic or cardboard box, or in bags. *Delivery Requirements* informs whether the client wants the product to be delivered in the farm, warehouse, or marketplace, etc. .

Table 3.4. Marketing Characterization Matrix

Market Option	Current Marketing	Competitors (number, types and strategies)	Type of Client	Services to Clients	Scope of Market
	(yes or no)		SM = supermarket FI = food industry I = industry Res = restaurant	TA = technical assistance Cr = credit	L = local R = regional N = national Exp = export

Growth of demand	Minimum volume purchased	Quality requirements	Packaging requirements	Delivery requirements	Business Relationship
(high, medium, or low)		(high, intermediate, or low)		PA = delivered at zone PW = delivered at warehouse	AG = agreement PA = partnership CO = contract

Business Relationship describes the type of commercial relationship that the client is willing to establish with rural producers. Three types exist: (a) an informal ‘agreement’ whereby satisfactory product quality, price, and volume effect the negotiation; (b) a ‘partnership’, which is more formal, and implies greater commitment between both parties; and (c) a ‘contract’, which is a formal relationship supported by a legal document. A commercial relationship can evolve from one type to another.

3.2.5 Economic characterization

Economic characterization is important to assess market options for small-scale rural producers. Although small-scale rural producers do indeed have a different rationale or perspective to that of a typical businessman or entrepreneur, they are undoubtedly interested in increasing their income. Income generation is now considered a key strategy for improving food security. In addition, the promise of profitability is a great motivator for collective action among small-scale producers, involving the creation of economic organizations and marketing activities.

It will be very convenient for the research team to have an idea of the profitability of the market options they are recommending. Economic characterization reveals (a) conventional financial parameters such as investment level and profitability, and (b) financial ratios which can be chosen and designed according to the research team's needs. Both types of data are closely related to the first two evaluation criteria.

Economic characterization is more demanding for the research team because, to complete the economic matrices, they will first have to develop financial profitability models. The financial parameters of the economic matrix are, in fact, derived from these financial models. Furthermore, to develop financial models, production or processing systems that are appropriate for small-scale producers have to be identified or proposed. These two topics, production systems and financial profitability models, will be discussed in the following two parts. The part on financial models will also explain basic profitability concepts, such as Financial Rate of Return or Internal Rate of Return, and Net Present Value. The Glossary in Appendix 1 also contains many business and financial definitions.

The use of the FRR or IRR and NPV parameters are recommended for all agro-industrial projects and, in the case of crops, when the project life is three or more years. For the remaining cases, simpler profitability parameters can be used, such as gross margin, net margin or cost-benefit analysis. Gross margin is a percentage that is calculated by first subtracting total variable or direct costs from total sales income. This result is then divided by total sales income. Net margin is calculated similarly, but fixed or indirect costs are subtracted from total sales income in addition to variable or direct costs. This result is divided by total sales income.

It should be noted that CIAT has developed a software, RentAgro, that facilitates the development of financial profitability models for all types of products. RentAgro acts as a bridge between the user and an electronic worksheet, requesting data from the user step-by-step, while internally constructing the financial model. This allows users with little knowledge of electronic worksheets and scant business and financial background to prepare accurate financial models and thus ascertain profitability parameters and ratios. RentAgro also assists users in the calculation of the amount of working capital required, interest payments, and in the execution of sensitivity analyses.

Table 3.5 presents the proposed economic characterization matrix. As already mentioned, the research team can design its own financial ratios. The economic variables are also explained below.

Level of Technology is used to classify the market option according to the technological complexity needed to develop it. *Price Stability* classifies the market option according to its price stability index, which is equal to the standard deviation of a deflated series of at least 18 monthly prices. Agro-industrial products exhibit prices that are more stable than those of unprocessed fruits and vegetables. *Pre-Production Investment* is an estimate of the funds needed until the crop's first harvest, or the first livestock sale, or the introduction of the agro-industrial product into the market.

Break-Even Point can be expressed as either the sales volume in units or currency, in which total income is equal to total production costs, or the sum of variable and fixed costs. At this point, the enterprise has neither profits nor losses. **Average No. of Workdays per Year** is the estimated number of workdays required during the project's life, and divide it by the number of years of the project. **Sales per Workday** is a ratio that calculates the total value of sales during the project's life divided by the total amount of wages. **Cash Flow per Workday** is another ratio that estimates total cash flow or net margin during the project's life, divided by the total number of workdays. **FRR without Financing** refers to the Financial Rate of Return, a common profitability parameter similar to the Internal Rate of Return that is calculated by the financial model. In this case, the FRR is an absolute measure of profitability because it excludes financial costs. **FRR with Financing** is the same previous parameter, but including credit costs. **NPV without Financing** refers to the Net Present Value, a similar profitability parameter that is calculated by the financial model and excludes financing expenditures. **NPV with Financing** is the same previous parameter, but including financing costs.

Table 3.5 Economic Characterization Matrix (\$ = national currency)

Market Option	Level of Technology	Price Stability	Pre-Production Investment	Break-Even Point	Average No. of Workdays per Year
	(high, medium, low)	(high, intermediate, or low)	(\$ thousands/ha)		(\$)

Sales per workday	Cash flow per workday	FRR without financing	FRR with financing	NPV without financing	NPV with financing
	(\$)	(%)	(%)	(\$ thousands)	(\$ thousands)

3.2.6 Proposing appropriate production and processing systems

The definition of realistic production and processing systems related to the market options is a prerequisite for developing financial profitability models. The selection of the appropriate technological level depends on several factors, such as crop requirements (i.e., its hardiness), soil and climatic conditions of the targeted region, the socio-economic conditions of the small-scale rural producers, and market

requirements. For example, if a market option such as a fruit or vegetable will be directed to a client in the fresh market who is demanding strict quality conditions, the use of chemical or organic pesticides will probably be a must.

Sources of information on this topic include key informants such as small- and medium-scale rural producers and processors, rural agro-industries, professionals of the agricultural and agro-industrial sectors, institutions involved in agricultural and agro-industrial training and technical assistance; and publications, such as manuals and technical journals. Where possible, however, small-scale production and processing systems should be based on primary information, such as field observations and interviews with small-scale producers and processors. Sometimes, it is crucial to visit other regions where other producers and processors already have experience with the targeted crop or agro-industrial product.

If only secondary information is available, the research team should be aware that for crops, data on planting density, amount of inputs, and productivity will often refer to trials conducted on experiment farms or by large commercial producers, who practice input-intensive agriculture. These figures must therefore be adapted to the reality of the rural economy, meaning that the use of inputs and productivity will be lower. Moreover, sophisticated technological components should be avoided and emphasis placed on those inputs already being used in the targeted region.

Yields per unit area of crops can vary widely. A useful exercise for determining an intermediate yield parameter is to write down the minimum and maximum yields for each production item. For example, a crop grown with high-input technology may yield up to 30 times more than a crop under semi-subsistence conditions. However, the idea is to propose production systems that will produce yields of an intermediate level on the production scale.

A similar situation occurs with agro-industry, where conversion factors (amount of raw material needed to produce a unit of the main agro-industrial product) in small-scale processing units are usually less efficient than in larger, more sophisticated agro-industrial plants. The research team will also have to define production capacity, investment level (infrastructure, equipment, machinery and supplies), inputs and labor requirements, conversion factors, and by-products obtained.

The information obtained during this technological exploration process also helps complete both the agronomic and agro-industrial characterization matrices. Appendix 7.2 contains a special format that can be used to facilitate the collection and organization of information pertinent to the production system. This format comprises five parts:

- Part 1. Identifies the product and the technological level, and estimates productivity;
- Part 2. Documents the activities carried out before and during planting;
- Part 3. Specifies the number of applications or repetitions of each task during production;

- Part 4. Documents the rates of each different type of input applied per plant or tree;
- Part 5. Provides a timetable of production activities.

3.2.7 Developing financial models

Once the production and processing systems are defined, the models of financial profitability can be developed, using an electronic worksheet, such as Excel, or with the aid of RentAgro, the user-friendly software described in Part 3.2.5.

The objective of the financial model is to calculate profitability parameters such as the FRR, IRR, NPV or gross and net margin so that the research team can classify the market options in profitability categories (high, medium, low, negative). *This financial categorization is more important than obtaining precise profitability parameters.* The financial information generated by the model is transferred to the economic characterization matrix.

- **Theoretical information**

Many profitability parameters exist, but one of the most common is the Internal Rate of Return (IRR), which has two versions: the Economic Rate of Return (ERR) and the Financial Rate of Return (FRR). For the purposes of this manual, the second one is used because the FRR includes the entrepreneurial viewpoint, together with market prices and costs. The FRR is defined as the interest rate that discounts a series of annual cash flows in such a way that the present value of the series is equal to the initial investment. Figure 3.1 illustrates this definition.

As shown in Figure 3.1, the investment project is assumed to cover 4 years, but the number of years can vary. In Year 0, an investment is made and each year this investment generates a cash flow, positive or negative, which is represented by the net profits or losses. However, the value of money depends on the 'time' variable; that is, \$100 now will cost more than \$100 within 2 years. Therefore, the series of cash flows should be discounted towards Year 0 to compare their value with the initial investment. As expressed in the previous definition, the value of the initial investment and the present value of the cash flow should be equal.

The rate of discount or interest rate used to discount the series of cash flows is the same FRR. For the project to be economically appealing to the investor, the FRR should be greater than the opportunity cost of capital or money. The opportunity cost of capital is the interest rate that the financial system recognizes for savings; for example, fixed time deposits (FTD). If the FRR is lower than the opportunity cost of capital, then the investor is best off leaving his/her money producing income in the financial system.

The Net Present Value (NPV) is another profitability parameter that is commonly used, and is related to the FRR. The NPV is the value in Year 0 of the series of cash flows that is discounted, using an interest rate equal to the opportunity cost of capital.

For a project to be financially appealing to an investor, the NPV should be greater than the initial investment. If it is smaller, then the investor is better off leaving the money in the financial system to produce income.

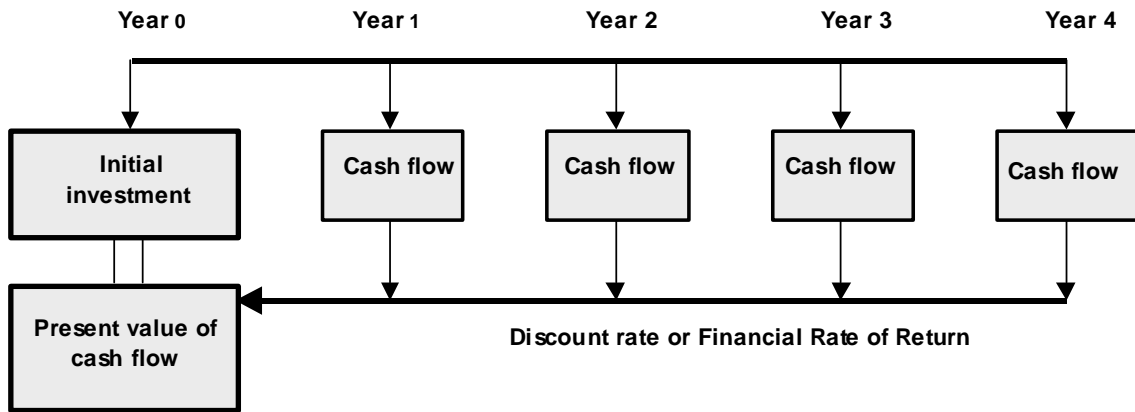


Figure 3.1 Graphic Interpretation of the Financial Rate of Return

Financial models may or may not include inflation. If they do not, then they are deflated models and, in this case, the FRR should be greater than the opportunity cost of capital minus the annual rate of inflation.

Depreciation should not be considered when calculating the FRR because this item does not represent a cash disbursement. When estimating profitability, depreciation is only considered when calculating the amount of taxes to pay; producer associations or co-operatives are usually exempt from taxes.

The research team should be familiar with the terminology used in cost accounting; for example, variable costs, fixed costs, gross margin, and net margin. Variable costs are those that vary directly with the volume produced; for example, raw material, packaging, or fuel. Fixed costs are those that do not vary with the volume of production, but remain relatively stable, such as administration expenses. As has already been mentioned, Gross margin can be expressed as a percentage or as a sum of money that is equivalent to sales minus variable costs. Net margin or net profit is equal to sales minus both variable and fixed costs.

However, the FRR and the NPV are the most suitable parameters of profitability for medium- and long-term projects (from 3 to 20 years). For short-term projects (from 1 to 24 months), other parameters can be used; for example, the time needed to recover the initial investment (payback), or a cost-benefit analysis. More details can be found in a financial textbook.

- **Assumptions**

To simplify the development of financial models, two unusual assumptions are made in this procedure: that the planted area is one hectare and that the crop is planted as a mono-crop (alone). Small producers are known to plant in lots smaller than 1 ha because of the lack of land and working capital. They also usually plant crops in association, as a strategy to reduce risk and increase the regularity of cash flow.

These assumptions do not eliminate the validity of the models because, as we explained before, the exercise does not aim to obtain precise financial parameters, but to classify different market options according to 'levels of profitability'.

- **Components of the financial model**

Appendix 7.3 presents a typical financial model for a given crop, as it would appear on the computer screen. The model consists of five main parts, namely: prices, quantity matrix, costs and income matrix, analysis of profitability without financing, and analysis of profitability with financing.

The prices section includes information on amount and breakdown of the initial investment, the cost of the different inputs used, the cost of the daily wage, and sale prices of different product qualities offered to the market. The quantity matrix quantifies the elements of investment, inputs, workdays, and production volume. The costs and income matrix uses information from the two previous matrixes to develop a simplified financial statement, similar to a profit-and-loss statement, to obtain the series of annual cash flows.

The component 'profitability analysis without financing' contains the formulae used to calculate the different parameters and financial-statement ratios. The FRR and the NPV are estimated using the series of annual cash flows. Other financial ratios, already described in Table 3.5 (economic characterization matrix), are also calculated. The component 'profitability analysis with financing' is similar, but credit cost is included.

The financial model just described can be used for agro-industrial products, but will be more complex because it will have to model the processing technology adequately. A separate section will be needed for parameters such as conversion factors, capacity utilization, and input requirements. RentAgro can be used for developing financial models for agro-industrial projects.

- **Preparing and using the financial model**

As mentioned before, the financial models are executed on electronic sheets and organized in the previously explained components. The electronic sheets consist of cells, where figures, formulae, or functions are keyed in. The model should be completely linked so that any change of a figure or formula will change the financial

parameters estimated by the model. For example, if the sale price of a product increases, then the FRR should increase automatically.

The financial model serves many uses, but above all, it can be used to estimate levels of profitability and other financial parameters of interest. It can also help carry out sensitivity analyses, which aim to determine which variables affect a given financial parameter, the most. A third use is to estimate minimum sale prices and maximum purchase prices. Finally, financial models serve as support for decision-making on credits and strategies to reduce production costs.

3.3 Defining the Second Market-Option Portfolio

Based on the information generated by the characterization of market options and considering the three evaluation criteria originally proposed, the research team will probably have to discard some products. The reader is reminded that the first market-option portfolio was limited to ten products. This discarding decision is facilitated by the use of the agronomic, livestock, agro-industrial, marketing, and economic characterization matrixes already discussed. All options that do not respond to one of the evaluation criteria should be discarded, thus increasing the probability of proposing market options that are really attractive for small producers. To illustrate this issue, several cases follow in which discarding should be done, without forgetting that the context of governmental policies towards the rural sector is important:

- When the level of profitability is negative or null.
- When the technology or infrastructure is too sophisticated, expensive, or not available in the region.
- When the required soil and climatic conditions do not exist in the region.
- When the initial investment is too high for most small-scale producer associations.
- When the market option is demonstrated to have detrimental effects on the environment.
- When the sale price shows high fluctuations throughout the year.
- When the market demands quality levels that are exaggerated or too strict for small-scale rural producers.

Those market options not discarded can then continue to the next and final stage of the marketing opportunity identification methodology: the final evaluation of market options by the rural community.

3.4 Final Evaluation of Market Options by the Rural Community

The procedure for the final evaluation with the rural community employs product-concept testing techniques, commonly used in market research when developing new products. It is crucial in determining whether a market option fulfils the first evaluation criterion, that is, viability under smallholding conditions.

In general terms, the procedure consists in holding meetings in various sub-regions to present small-scale rural producers with different market options. Each option is presented to the rural audience with the aid of 'product cards', which carry key information on each product, obtained through a survey of producers' decision criteria that had been previously conducted. The presentation is followed by a question-and-answer session. Each participating producer then receives the set of product cards, which he/she ranks in terms of preferences; first on an individual basis, then on a group basis according to small-scale producer segments, and explaining each time the reasons for the preferences.

3.4.1 Objectives

- To determine the preferences of the small-scale rural producer regarding market options, whether these be crops, livestock and forest products, or agro-industries.
- To determine the decision criteria of the small-scale rural producer when selecting new crops or products.
- To detect variations in decision criteria according to segment of small-scale producer.

3.4.2 Basic decision-making

The planning of the final evaluation of market options begins by taking a series of basic decisions described below. The research team should decide if it needs additional support or if it can handle the process alone. Responsibilities should be assigned in advance, since this process is eminently multidisciplinary in nature and requires solid logistic support. An overall coordinator should also be designated.

• Subdividing the region

A pertinent variable should be sought to segment or subdivide the region and the proposed market options should be compatible with the resulting sub-regions. In hillside areas or in micro-watersheds, altitude can be an appropriate criterion for segmenting the region. In CIAT's hillside reference site in southwestern Colombia, four areas were established: low (1100-1300 m.a.s.l.), medium to low (1300-1500 m.a.s.l.), medium to high (1500-1700 m.a.s.l.) and high (over 1700 m.a.s.l.). In the hillside areas of Central America, the degree of access to the market was chosen as the variable for regional segmentation. In the Peruvian Amazon around Pucallpa (lowlands), division was according to location and economic activity of rural

inhabitants, who were categorized into slash-and-burn farmers, slash-and-burn farmers planting perennial crops (African oil palm, peach palm, and *camu-camu*), riverside farmers, and roadside farmers.

- **Types of producers**

Categories or types of producers should be established because of the overall objective of linking small-scale rural producers with growth markets. These categories can be defined based on variables such as degree of market orientation, level of wellbeing, or type of economic activity, as in the case of Pucallpa.

In the hillsides reference site in southwestern Colombia, small-scale producers were classified according to degree of market orientation. Three categories were established: commercial, semi-commercial, and subsistence. Producers can also be classified by level of wellbeing into high, intermediate, and low. In a study carried out in 1996 by CIAT, the strong correlation between level of wellbeing and degree of market orientation was confirmed.

- **Portfolio of market options per sub-region**

Sometimes market options are not viable in all areas within the targeted region; that is, each sub-region may require its own portfolio of market options. If possible, a list of at least 3 to 5 products must be prepared for each sub-region. For example, the same market options cannot be offered to producers located at widely different altitudes (e.g., 1800 versus 1100 m above sea level). In the case of lowland areas, such as the Amazons, riverside farmers may differ from roadside farmers in their requirements for market options. However, several crops or market alternatives may be common to several sub-regions.

3.4.3 Survey of decision criteria used by small producers

As already mentioned, the product card is a fundamental tool when providing feedback to the rural community regarding market options. Its adequate design requires a previous rapid survey among a representative sample of small-scale rural producers that includes producers from all predetermined segments or categories. The survey aims to identify the decision criteria used by small-scale rural producers when selecting a crop, a livestock, forest or agro-industrial product.

This survey can be carried out through semi-structured interviews, using interview guides. Interviews can focus on traditional and new products. The key question is 'What do you take into account when you choose between a traditional or a new product?'

The results of a survey conducted in hillside areas of southern Colombia indicated that, for the producer, the most important criteria when selecting a crop for planting are:

- The producer knows the crop and has experience cultivating it
- The crop is adapted to the region and is hardy
- The crop has a short or intermediate growth cycle
- Product prices are stable
- The product has a market

3.4.4 Designing product cards

When the basic decisions have been taken and the survey results on decision criteria are available, the product cards can then be designed. The product card used in Colombia was carefully designed to achieve a balance between easiness of comprehension and informative content. A simplified scheme of the product card is presented in Figure 3.2. This card refers to a crop, but the product card scheme or format can be used for livestock, forest, and agro-industrial products. What will change is the informative content.

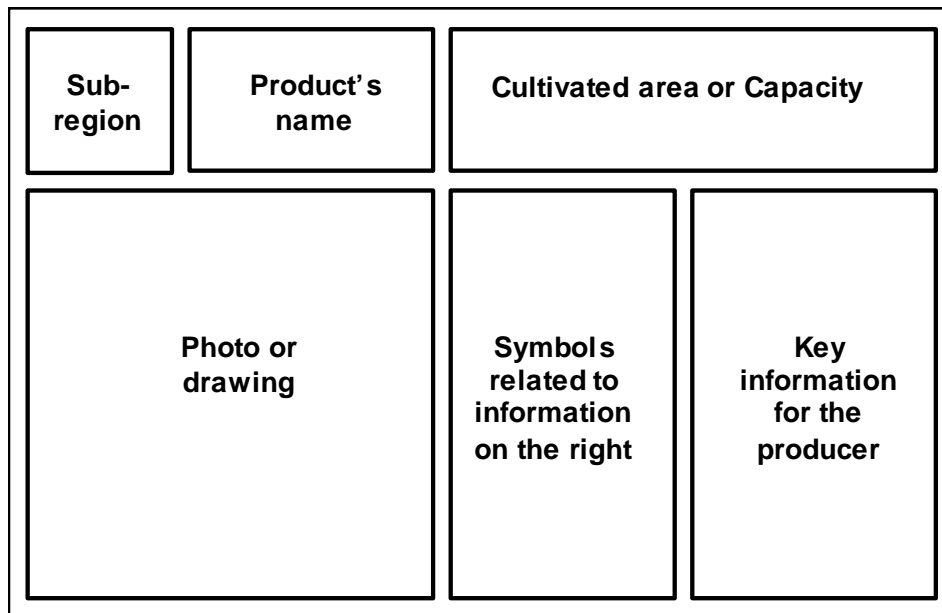


Figure 3.2 Format of a Product Card with Information on a Market Option

This card consists of two main sections. The first section is of identification, where a photo or illustration and the name of the product appear. The second section is informative and contains data related to degree of adaptation, production cycle, annual yield, investment expenses (including number of workdays), and a simplified profitability parameter (FRR). Much of this information will be available in the characterization matrices. To facilitate comprehension, a drawing or symbol

accompanies each type of information. Water requirements and planting density are also described. To facilitate the handling of data and comparison, planting area was always 1600 m² in monoculture. The latter is a typical cultivated area, in the context of small-scale producers in the region. An example of a product card used in Colombia is presented in Figure 3.3.

3.4.5 Process for ranking product preferences

The procedure developed by CIAT consists of organizing product cards in order of preference. After the presentations on the market options, the invited small-scale producer is asked to separate the cards into three groups, good, bad, and intermediate, according to their preferences. The producers are then asked to order the product cards within each group. When they finish, they are asked why they placed certain cards in the first (most preferred) and last (least preferred) positions. Finally, to determine the “ideotype” or concept of ‘ideal product’, the producer is asked what condition is missing in the alternative he/she has chosen to improve it even more.

Appendix 7.4 presents the format used in this exercise. The interviewer is responsible for filling out the format. The category or type of producer should be properly identified. This procedure should be implemented with individual producers and by type of producer. Materials required are a set of product cards per producer, and answer sheets and pencils for interviewers.

3.4.6 Planning and conducting evaluation meetings

This part describes how to plan an evaluation meeting (Table 3.6) and offers a checklist (Table 3.7) of the necessary resources. A meeting can be planned for each sub-region of the targeted region. Each meeting should be carried out with a minimum of 20 producers, representing all producer categories proposed. To guarantee an attendance of this size, at least 20% more (24) producers should be invited.

From 3 to 5 persons, capable of performing one or more of the following tasks, are needed to:

- Act as facilitator of the event
- Present market options
- Answer business and technical questions about market options
- Interview and fill out preference format (at least 3 people)

If the producers were offered transportation, drivers and vehicles should also be available.

K Z - A	Uchuva (TM)	Fruit 640 plants	Unit of land area (1600 m ²) – Monocrop		
			Information		
				Adaptation Whether the option tolerates drought, pests, and lack of fertilization.	Regular Water, more than 800-1200 mm
				Cycle Time between planting and first harvest.	6 months
				Yield Amount of product produced per year.	3200 kilograms (6400 pounds)
				Expenses up to first harvest What is spent in inputs and wages.	Expenses: Col\$763,000 Number of workdays: 53
				Profit Amount of money free for every Col\$100 spent.	\$66

Figure 3.3 Example of a Product Card for Uchuva (*Physalis peruviana*)

Table 3.6 List of Activities for Planning and Conducting an Evaluation Meeting with the Rural Community

- a. Before the meeting, if the participating small-scale producers have been grouped according to type, then give them a distinctive badge to wear.
- b. Prepare everything beforehand and wait until most of the invited producers have arrived to start the meeting, which usually lasts three hours. Preferably, the meeting should start at 10:00 a.m. or at 2:00 p.m.
- c. Begin the meeting with a general introduction, covering background information and assumptions.
- d. Present each market option and explain the product card. Use any other type of material that you consider appropriate. You can use posters, photos, opaque or overhead projectors, or slide projectors for the presentation. If there is no electricity in the area, take a gasoline or diesel generator with you. Also, take physical samples of the products. After presenting each product, leave enough time for questions and answers.
- e. Go on to explain how each participant should rank the product cards (market options) that he/she has received. You can use photocopies of the product cards.
- f. On an individual basis, each participant then organizes his/her set of product cards.
- g. Participants are then grouped by type of producer, and the options ranked again.
- h. Give some sort of feedback to the producers for all their work and time.
- i. Thank the producers for their collaboration and invite them to refreshments or a light meal.
- j. Those producers who were promised transportation are taken back.

Table 3.7 Checklist for Conducting an Evaluation Meeting

Add a tick when done	Resources
1. Human resources	
	1.1 A representative sample of rural producers
	1.2 A facilitator for the meeting
	1.3 A presenter of market options
	1.4 One or two consultants of market options
	1.5 Three interviewers
	1.6 One or two drivers with vehicles
2. Infrastructure	
	2.1 A sheltered meeting place, with electricity and projection facilities
	2.2 Tables and chairs
	2.3 Bathrooms
3. Tools	
	3.1 Three sets of full-color product cards for interviewers
	3.2 Photocopies of product cards to hand out to producers
	3.3 Answer formats
	3.4 Pencils
	3.5 Badges for producers
	3.6 Samples of products
4. Materials and equipment	
	4.1 Opaque, overhead, or slide projector
	4.2 Flip chart and magic markers (optional)
	4.3 Adhesive tape
	4.4 Gasoline-powered electric generator if no electricity in area
	4.5 Light meal, snacks, or refreshments
	4.6 If necessary, black cloth or paper to darken the room

The research team members and additional support staff must be trained so that they can efficiently assume their responsibilities within the final evaluation meeting with the rural community.

Scheduling evaluation meetings

Planning evaluation meetings involves the adequate scheduling of activities. Meeting sites should have the minimum services and equipment necessary, and should be easy to access for both organizers and producers. Because each meeting will require a great deal of coordination and solid logistic support, no more than one meeting per week should be programmed. As said before, one meeting should be programmed per sub-region, and representatives of all categories of small-scale rural producers

should participate. The producers should be invited 2 weeks in advance, and a reminder sent 1 or 2 days before the programmed date.

Table 3.8 presents an example of a meeting-programming matrix used in the Colombian case study.

Table 3.8 Matrix Used to Schedule Evaluation Meetings in the Colombian case study¹

Type of producer	Sub-region			
	High	Intermediate to high	Intermediate to low	Low
Commercial	X	X	X	X
Semi-commercial	X	X	X	X
Subsistence	X	X	X	X
	Meeting 1	Meeting 2	Meeting 3	Meeting 4
	Date:	Date:	Date:	Date:
	Place:	Place:	Place:	Place:

Inviting the small-scale rural producers

A well-placed invitation to rural producers is key to the final participatory evaluation process. First, it guarantees that the sample of producers and farming communities is representative, and, second, it increases the likelihood of a good attendance.

Before inviting the producers, a representative sample of farming communities should be selected within each sub-region. Selection criteria should be determined according to one or more related variables, for example, accessibility by road or infrastructure of basic services.

Producers representing each of several predetermined categories are then identified, using either data from previous surveys or key informants, in each selected farming community. The sample should include women. The same number of people per type of producer should be invited; for example, if each meeting is going to be carried out with 21 producers, then seven producers per category should be invited. At least 20% more than the expected number of producers should be invited to ensure that enough people will attend the meeting.

To encourage small-scale producer participation, fancy invitation should be sent to them, which can also be used as vouchers for refreshments or a light meal. Cards

¹ Sub-regions were defined according to altitude

should be made out to each producer, specifying the meeting site, the date and hour of the meeting, and mentioning the meeting’s motive.

Producers should then be formally invited during a visit made 1 or 2 weeks before the meeting in which the meeting’s motive is explained, the type of producer determined or corroborated, and the invitation card is formally handed over. An example of an invitation card is presented in Figure 3.4.

Invitation

Logo of host institution

Name: _____

**Meeting to Evaluate
Market Options
CIPASLA**

Meeting zone _____

Date: _____

Time: _____

Place: _____

- Voucher for lunch
- Movie

Figure 3.4 Example of Invitations for Small-Scale Rural Producers to Attend Product Evaluation Meetings

3.4.7 Data processing and analyzing

After all scheduled meetings are held, the completed preference-ranking formats will be available, at both the individual level and by type of producer (Appendix 7.5). These formats contain information that should be processed and analyzed, using a computerized statistical package such as SPSS.

Information should be presented by sub-region, in different tables that show frequency and percentage of occurrence. These parameters refer to the number of times a market option was classified in the ‘good’ group or in first place, or in the ‘bad’ group. Frequencies and percentages are presented for the entire sample for each sub-region and also by type of producer. Titles of suggested tables are listed below:

For individual ranking by sub-region, the following titles can be used:

- Number of times the option appears in the ‘good’ group (overall and by type or segment of producer)

- Number of times the option appears in first place (overall and by type of producer)
- Reasons for choosing the first two options (overall and by type of producer)
- Reasons for choosing the most preferred option (overall)
- Number of times the option appears in the ‘bad’ group (overall)
- Number of times the option appears in the last two places, that is, is least preferred (overall)
- Reasons for rejecting the last two options (overall)
- What the preferred option lacks to be an “ideotype” or ideal type (overall)

For group ranking by sub-region and producer type, these titles can be used:

- Most preferred options
- Reasons for preference
- Least preferred options
- Reasons for rejection

Table 3.9 shows an example of the first table or presentation format. By organizing information in a series of tables, the initial objectives of participatory evaluation are met, that is, to determine the preferences and decision criteria of rural producers by sub-region and by segment or type of producer.

Table 3.9 Example of a Table Used to Present Results of an Evaluation Meeting

High altitude zone	Number of times classified in ‘good’ group								
	Product	General	%	Commercial	%	Semi-commercial	%	Subsistence	%
	Blackberry	17	100	6	100	6	100	5	100
	Naranjilla	15	88	6	100	5	83	4	80
	Native strawberry	11	65	5	80	2	33	4	80
	Cauliflower	6	35	3	50	2	33	1	20
	Uchuva	6	35	2	33	3	50	1	20
	Anthurium	5	29	0	0	1	33	3	60

3.5 Defining the Final Market-Option Portfolio

After processing the evaluation formats and organizing the results in summary tables, the research team can easily observe which market options were preferred and which were rejected, and the corresponding reasons. Those options rejected by most small-scale producers should be discarded because they are saying that these market options are not the most viable or attractive from their point of view or for their socio-economic context.

Market alternatives occupying intermediate places should not be discarded. If a product never occupied a first place, but was not rejected categorically by the producers, it should not be discarded.

By now the market-option portfolio obtained after the Rapid Market Survey, a maximum of ten products has been screened or refined twice, first after the characterization process and then after the final evaluation with the rural community. Hence, the final market-option portfolio will now probably consist of three to six products.

3.6 Preparing the Final Report

The final report is a document that aims to make explicit the results of the final participatory evaluation with the rural community, in terms of the original objectives. It must also provide background information and indicate work methodology. Results can be presented in two ways:

- As a text document, making reference to different tables included as an appendix.
- As a combined text and table document that includes a section on conclusions and recommendations. In addition, the different instruments and formats can be included as appendices.

To illustrate, the table of contents of the final report prepared for the final participatory evaluation of market options with the rural community, conducted in the hillsides reference site of Colombia was as follows:

- I. Prologue
- II. Acknowledgements
- III. Executive Summary

1. Background
2. Objectives
3. Methodology
4. Results
- 4.1 Preferred options
- 4.2 Reasons for preferring them

- 4.3 Options rejected
- 4.4 Reasons for rejecting them
- 4.5 “Ideotypes” or ideal products
- 4.6 Conclusions and recommendations

Appendix 1. Tables numbers 1-41

Appendix 2. Cards of the most preferred products

Appendix 3. Questionnaire used

Appendix 4. Guidelines for final market-option evaluation meetings

Exercise 3.1 Agronomic Characterization of a Crop

Objective

- The trainee will fill out an agronomic characterization matrix for a crop considered important in the region.

Instructions for the Facilitator and Trainee

1. Form groups of four trainees and name a coordinator.
2. Choose a crop that is important in the area and on which one or more members of the group has good agronomic knowledge.
3. Use the agronomic characterization format appearing in the Worksheet for this exercise.
4. Relevant information for this exercise is found in Part 3.2.1. If some data are unknown, the team should make an intelligent assumption.
5. Once finished, the group will copy the format on a large paper or transparency for presentation in a plenary session by the group's coordinator.

Resources needed

- Worksheet for Exercise 3.1
- Part 3.2.1 of the manual
- Flip chart, or overhead projector and transparencies
- Paper and pencils
- Magic markers, or markers for transparencies

Time required: 1.5 hours

Exercise 3.1 Agronomic Characterization of a Crop - Worksheet

Agronomic Characterization Matrix

Market Option	Complete Cycle	Pre-Production Cycle	Technical Demand	Soil Requirement	PH	Water Requirement
	(years)	(months or years)	(low, average, or high)			(mm/year)

Altitude Requirement	Labor Requirement	Planting Period	Need for Irrigation	Major Pests and Diseases	Planting Density	Annual Yield
(m.a.s.l.)			(yes or no)		(no./ha)	(t/ha)

Exercise 3.2 Marketing Characterization of a Product

Objective

- The trainee will fill out a marketing characterization matrix for a product considered important in the region.

Instructions for the Facilitator and Trainee

1. Form groups of four trainees and name a coordinator.
2. Choose a product that is important in the area and on which one or more members of the group has good general knowledge.
3. Use the marketing characterization format appearing in the Worksheet for this exercise.
4. Relevant information for this exercise is found in Part 3.2.4. If some data are unknown, the team should make an intelligent assumption.
5. Once finished, the group will copy the format on a large paper or transparency for presentation in a plenary session by the group's coordinator.

Resources needed

- Worksheet for Exercise 3.2
- Part 3.2.4 of the manual
- Flip chart, or overhead projector and transparencies
- Paper and pencils
- Magic markers, or markers for transparencies

Time required: 1.5 hours

Exercise 3.2 Marketing Characterization of a Product - Worksheet

Marketing Characterization Matrix

Market Option	Current Marketing	Competitors (number, types and strategies)	Type of Client	Services to Clients	Scope of Market
	(yes or no)		SM = supermarket FI = food industry I = industry Res = restaurant	TA = technical assistance Cr = credit	L = local R = regional N = national Exp = export

Growth of demand	Minimum volume purchased	Quality requirements	Packaging requirements	Delivery requirements	Business Relationship
(high, medium, or low)		(high, intermediate, or low)		PA = delivered at zone PW = delivered at warehouse	AG = agreement PA = partnership CO = contract

Exercise 3.3 Agro-Industrial Characterization for a Processed Product

Objective

- The trainee will fill out an agro-industrial characterization matrix for a product considered important in the region.

Instructions for the Facilitator and Trainee

1. Form groups of four trainees and name a coordinator.
2. Choose an agro-industrial product (processed or transformed) that is important in the area and on which one or more members of the group has good general knowledge.
3. Use the agro-industrial characterization format appearing in the Worksheet for this exercise.
4. Relevant information for this exercise is found in Part 3.2.3. If some data are unknown, the team should make an intelligent assumption.
5. Once finished, the group will copy the format on a large paper or transparency for presentation in a plenary session by the group's coordinator.

Resources needed

- Worksheet for Exercise 3.3
- Part 3.2.3 of the manual
- Flip chart, or overhead projector and transparencies
- Paper and pencils
- Magic markers, or markers for transparencies

Time required: 2 hours

Exercise 3.3 Agro-Industrial Characterization for a Processed Product - Worksheet

Agro-Industrial Characterization Matrix

Market option	By-products	Raw materials	Other inputs	Technical demand	Conversion factor
				(low, average, or high)	

Capacity	Machinery & Equipment	Method for Quality Control	Working Capital	Investment	Annual Sales

Exercise 3.4 Designing a Product Card

Objective

- The trainee will develop a product card for a given agricultural, livestock, forest or agro-industrial product that is important in a given region.

Instructions for the Facilitator and Trainee

1. Form a group of four trainees and name a coordinator.
2. Choose a product that is important in the region and on which one or more members of the group has good knowledge.
3. Use the product card format appearing in the Worksheet for Exercise 3.4.
4. Pertinent information for this exercise is found in Part 3.4.4 and in Figures 3.2 and 3.3.
5. If some data are unknown, the team should make an intelligent assumption.
6. When finished, the group will copy the format onto a large paper or transparency for the presentation in a plenary session by the group's coordinator.

Resources needed

- Worksheet for Exercise 3.4
- Part 3.4.4 and Figures 3.2 and 3.3 of the manual
- Flip chart, or overhead projector and transparencies
- Paper and pencils
- Magic markers, or markers for transparencies

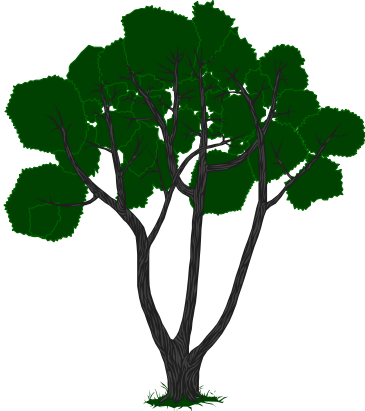
Time required: 1.5 hours

Exercise 3.4 Designing a Product Card - Worksheet

Format for Product Card

Exercise 3.4 Designing a Product Card - Feedback

Each group will present different product cards, depending on the crop selected. An example developed for the Colombian case is given.

Mid-altitude zone	Fig tree Fruit tree 46 trees 2 harvests	1600 m ² - Monocrop		
			Adaptation Tolerates drought, pests, and lack of fertilization	Regular Water: 700 mm
			Cycle Time between planting and first harvest	_____ 2 years
			Yield Amount of product produced per year	_____ 640 kg
			Expenses up to first harvest How much was spent in inputs and wages	_____ Expenses: Col \$770,000 No. of workdays: 28
			Profit (Col\$) The amount of money free per \$100 spent	_____ Col\$35

Exercise 3.5 Preparing a Timetable for the Final Evaluation Meeting of the Market Options with the Rural Community

Objective

- The trainee will prepare a timetable for the final evaluation meeting of the market options with the rural community.

Instructions for the Facilitator and Trainee

1. Form groups of four trainees and name a coordinator.
2. The groups will use the format appearing in the Worksheet for Exercise 3.5. The number of activities appearing in the format is merely a suggestion.
3. Under the 'Date' column, the group should begin with Week 1 and continue to work in terms of weeks. Some activities may take more than one week. Several activities can be carried out simultaneously and the order is important because some activities are prerequisites for others.
4. The groups should first prepare a draft timetable before copying it onto the worksheet format.
5. Pertinent information is found in Part 3.4 of the manual.
6. The group will prepare a transparency with the completed Worksheet.
7. The coordinator of each group will present the group's work in a plenary session.

Resources needed

- Worksheet for Exercise 3.5
- Part 3.4 of the manual
- Overhead projector and transparencies
- Paper and pencils
- Markers for transparencies

Time required: 2 hours

Exercise 3.5 Preparing a Timetable for the Final Evaluation Meeting of the Market Options with the Rural Community - Worksheet

No.	Activity	Person responsible	Termination date
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			

Exercise 3.5 Preparing a Timetable for the Final Evaluation Meeting of the Market Options with the Rural Community - Feedback

Timetables can vary, but it is important to list major activities in the correct order. Activities 15-17 (shaded) are the same for each meeting. The others are general activities.

No.	Activity	Person responsible	Implementation time
1	Ensure funding of final evaluation of market options	Coordinator	Week 1
2	Establish work teams	Coordinator	Week 2
3	Subdivide targeted region	Team	Week 2
4	Select market options per sub-region	Team	Week 2
5	Collect information on options	Team	Week 3
6	Define small-scale producer categories	Team	Week 4
7	Select sample of farming communities	Team	Week 4
8	Conduct survey on small-scale producer's decision criteria	Team member	Week 5
9	Prepare survey report	Team member	Week 6
10	Design and prepare product cards	Team	Week 8
11	Define evaluation meeting sites	Team	Week 8
12	Plan evaluation meetings	Team	Week 8
13	Prepare invitation cards for meetings	Team member	Week 9
14	Train relevant personnel	Team	Week 9
15	Invite small-scale producers	Team member	Weeks 10-13
16	Coordinate logistics of the meetings	Team	Weeks 11-14
17	Conduct evaluation meetings	Team	Weeks 12-15
18	Process and analyze data	Team	Week 17
19	Prepare final report with conclusions	Team	Week 19
20			
21			
22			
23			
24			
25			

Practice 3.1 Survey of Decision Criteria for Crop Selection

Objective

- The trainee will identify key decision criteria of small producers when selecting a crop for planting.

Instructions for the Facilitator and Trainee

1. Form a team of four trainees and name a coordinator.
2. Worksheets nos. 1 and 2 include interview guidelines and a format for reporting.
3. Pertinent information to this practice is found in Parts 3.4.2 and 3.4.3.
4. This practice takes 2 days, divided into three sessions, as follows:

Planning session

- If not done already, the team will choose four farming communities that are representative of the region and define small-scale producer segments or types.
- Then, follow through with the interview guidelines or questionnaire, which is the research tool to be used with rural producers. Remember the objective of the survey of decision criteria.
- During the interview try to corroborate the type of producer being interviewed. Remember to use simple language.

Fieldwork session

- A sample of eight producers is interviewed in a single farming community. The sample should include all types of producers.
- One team member can conduct the interview, while another completes the format. (If necessary, a farming community can be served by more than one team.)

Reporting and presentation session

Each team prepares a report and its coordinator will present it in a plenary session.

Resources needed

- Transportation to and from the rural area
- Refreshments
- Worksheets nos. 1 and 2 for Practice 3.1
- Parts 3.4.2 and 3.4.3 of the manual
- Flip chart, or overhead projector and transparencies
- Paper and pencils
- Magic markers, or markers for transparencies

Time required: 2 days

Practice 3.1 Survey of Decision Criteria for Crop Selection - Worksheet no. 1

Interview Guidelines for the Survey on 'Small-Scale Producers' Decision Criteria for Selecting Crops for Planting'

1. Greet the producer and explain the objective of your visit, for example:

'Good morning (*or* Good afternoon), we are from Such-and-Such Organization and we would like to know whether we could talk to you about a subject that really interests everybody.'

2. Ask a question to corroborate the type of producer, such as:

'Do you sell most of what you produce or do you use it yourself?'

Note: This question is pertinent only if it were decided that small-scale producers should be classified according to their degree of market orientation (commercial, semi-commercial, subsistence).

3. Write down the producer's name, the type of producer he or she is, the farming community, and the name of the survey group.

4. Ask about selection criteria used to choose traditional crops, for example:

'What aspects do you think about when choosing a traditional crop for planting?'

5. Write down the answers.

6. Ask about selection criteria when choosing new crops, for example:

'What aspects do you think about when choosing a new crop for planting?'

7. Write down the answers.

8. Thank the producer for his/her collaboration.
-

Practice 3.1 Survey of Decision Criteria for Crop Selection - Worksheet no. 2

Report Format for the Survey on “Producers’ Decision Criteria for Selecting Crops for Planting”

Group:		Farming community:	
Number of producers interviewed:			
No.	Decision criteria to select traditional crops	Frequency	%
1			
2			
3			
4			
5			
No.	Decision criteria to select new crops	Frequency	%
1			
2			
3			
4			
5			
Differences found in criteria among producer types:			

Practice 3.1 Survey of Decision Criteria for Crop Selection - Feedback

This is an example of a final report:

Survey on “Small-Scale Producers’ decision criteria for selecting crops for planting”

Group: No. 5			
Number of producers interviewed: 8		Farming community: La Torre	
No.	Decision criteria to select traditional crops	Frequency	%
1	Knowledge/expertise	8	36
2	Does not require inputs/easy to plant	5	23
3	Short or intermediate growth cycle	4	18
4	Stable price	3	14
5	Has a market	2	9
No.	Decision criteria to select new crops	Frequency	%
1	Does not require inputs/easy to plant	8	32
2	Good price	6	24
3	Has a market	5	20
4	Short or intermediate growth cycle	4	16
5	Stable price	2	1
Differences found in criteria among producer types:			
Subsistence producers were more interested in hardy, short-cycle crops.			

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Appendices



Appendices

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Appendix 1. List of Possible Questions for the Rapid Market Survey

Key Questions

Note: The ten questions in bold are considered essential in a Rapid Market Survey. With respect to the rest of the questions, the research team should choose the most pertinent ones according to the research objectives.

- **Which is the market demand trend for the product in the last six (or twelve months)? Is it increasing, stable or decreasing? By what percentage is market demand increasing or decreasing?**
- **Which are the months of most and least demand for this product? Why do you think this happens?**
- **Are there any periods of scarcity for this product? If so, in which months? Which do you think are the causes?**
- **What are the quality requirements for this product?** *Note: the interviewer will have to make sure that the answer is thorough and specific to the type of product involved (grains, fruits, vegetables, roots, tubers, flowers, or an agro-industrial product)*
- **Which is the required presentation or packaging for this product?**
- **Which variety is required for this product?** *Note: for primary, or unprocessed products such as fruits, vegetables, etc.*
- Which brands do you sell of this product? Which brand do buyers or consumers prefer? *Note: for branded products.*
- Which flavors do you sell of this product? Which flavor do buyers or consumers prefer?
- Which products are substitutes for this product?
- **How much are you willing to pay for this product?** *Note: make sure the unit of purchase is clear.*
- For how much do you sell this product? *Note: make sure the unit of purchase is clear.*
- **Which is your method of payment for this product?** *Note: if the contact does not pay for cash, make sure he informs how many days of credit he expects.*
- Do you conduct periodic product promotions?
- Do you expect your supplier to participate in your promotional activities related to this product? If so, how do you expect the supplier to participate? *Note: sometimes the buyer transfers part or all of the promotional cost to his suppliers by demanding price discounts, which are then transferred to his clients, in other words, the product supplier pays the promotional cost.*

- What type of supplier do you currently have for this product?
- **What is the minimum volume purchased from a single supplier?**
- With what frequency do you purchase this product?
- **What frequency and continuity of supply for this product will you accept from us?**
- Are you satisfied with your current supplier for this product? Why?
- What services do you obtain from your current supplier of this product?
- What services do you provide to your current supplier of this product?
- Where do you expect to receive this product from your supplier?
- From which geographic areas do you think this product is coming from?
- In what geographic area do you sell most of this product? Note: this question is for middlemen or wholesalers.
- Contact's buying intention for a product sample from a small-scale rural producer group or organization. *Note: A popular semantic scale is proposed here.*

Which of the following sentences best describes your intention of buying this product from our group or organization?

5. *I will definitely buy this product from your organization*
4. *I will probably buy this product from your organization*
3. *I don't know if I will buy or not this product from your organization*
2. *I will probably not buy this product from your organization*
1. *I will definitely not buy this product from your organization*

Appendix 2. Format for Describing a Production System for a Crop

Product: _____

Technology: ___ Low ___ Intermediate ___ Optimal

Total cycle: _____ Production cycle: _____

Is irrigation necessary? (YES) (NO)

Planting density: _____/hectare

Range of productivity:

Low: _____ ton/ha High: _____ ton/ha

Estimate for low technology: _____ ton/ha

Estimate for intermediate technology: _____ ton/ha

1. Initial investment

2. Pre-planting and planting

Days required to:

- () Prepare the land _____
- () Place posts, trellises, and fastenings _____
- () Prepare the seedbed _____
- () Make holes _____
- () Design plot, dig holes, and plant _____

Others:

- () _____
- () _____
- () _____

3. Production activities (applications)

Activity	Number of applications per month (or year)									
	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10
Weed control										
Fertilization:										
Organic										
Chemical										
Foliar										
Lime amendments										
Pruning										
Irrigation										
Sanitary control:										
Insecticides										
Fungicides										
Others:										

1. Inputs

Activity	Number of doses per plant (or tree) per month or year								
	0	1	2	3	4	5	6	7	8
Fertilization:									
Organic:									
Chemical:									
Foliar									
Lime amendments									
Sanitary control: Insecticides Fungicides									
Others									

5. Production activities (timetable)

Activity	Scheduling within program (month)				
	0-1	1-2	2-3	3-4	4-5
Weed control					
Fertilization:					
Organic					
Chemical					
Foliar					
Lime amendments					
Pruning					
Irrigation					
Sanitary control:					
Insecticides					
Fungicides					
Others					

Appendix 3. A Financial Profitability Model for a Product: The Example of Lulo or Naranjilla

Main details

Date: February 1996

Calculation of internal rate of return: 1 hectare

Product: Naranjilla (lulo), not hardy and is well-known

Technology: Intermediate

Planting density per hectare: 2,200 plants

Wage per workday: 5,500 Colombian pesos

Pre-production period: 12 months

Model's time span: 3 years

Part 1. Unit costs and prices

Item	Unit	Value (Col\$)
• Investment		
Pond and accessories	Unit	300,000
Seedbed	Unit	50,000
Hoses	m	300,000
Fumigator	Unit	70,000
Tools	Unit	5,000
Plastic baskets	Unit	7,200
• Inputs (placed on site)		
Ca + P ('calfos')	Kg	91
Chicken manure	Kg	70
Fertilizers	Kg	430
Green manure	Kg	75
Foliar fertilizers	L	3,587
Insecticides	L	5,500
Fungicides	Kg	7,000
Traps	Unit	300
• Prices		
First grade	Kg	1,400
Second grade	Kg	750
Transport costs	Kg	50

Part 2. Quantity matrix

Item	Unit	Month				Total
		0	0-1	1-2	2-3	
• Investments						
Pond and accessories	Unit	1				
Seedbed	Unit	1				
Hoses	m	130				
Fumigator	Unit	1				
Tools	Unit	10				
Plastic baskets	Unit	25				
• Labor						
Preparing the land	Workday	15	0	0	0	
Preparing the seedbed	Workday	5	0	0	0	
Laying out, digging holes, and planting	Workday	42	0	0	0	
Weed control	Workday	0	30	15	15	
Fertilization	Workday	11	33	33	33	
Sanitary control	Workday	10	10	10	10	
Debudding	Workday	0	15	15	15	
Watering	Workday	0	30	20	20	
Harvesting	Workday	0	14	69	69	
Cleaning and selection	Workday	0	5	23	23	
Packaging	Workday	0	1	6	6	
Total labor	Workday	83	138	191	191	602
• Amounts of inputs						
Ca + P ('calfos')	Kg	660	0	0	0	
Chicken manure	Kg	1,320	880	880	880	
Fertilizers	Kg	0	44	44	44	
Green manure	Kg	1,100	1,100	1,100	1,100	
Foliar fertilizers	Kg	0	4	4	4	
Insecticides	Kg	8	5	5	5	
Fungicides	Kg	0	2	2	2	
Traps	Unit	110	0	0	0	
• Yields						
First grade	70% Kg	0	1120	5,600	5,600	
Second grade	25% Kg	0	400	2,000	2,000	
Losses	5% Kg	0	80	400	400	
Total	100% Kg	0	1,600	8,000	8,000	

Part 3. Cost and income matrix

Item	Month				Total
	0	0-1	1-2	2-3	
1. Investments					
Pond and accessories	300,000	0	0	0	
Seedbed	50,000	0	0	0	
Hoses	39,000	0	0	0	
Fumigator	70,000	0	0	0	
Tools	50,000	0	0	0	
Plastic baskets	180,000	0	0	0	
Subtotal 'Investments'	689,000	0	0	0	689,000
2. Variable costs					
a. Labor	456,500	756,667	1,049,833	1,049,833	3,312,833
b. Inputs					
Ca + P ('calfos')	60,060	0		0	
Chicken manure	92,400	61,600	61,600	61,600	
Fertilizers	0	18,920	18,920	18,920	
Green manure	82,500	82,500	82,500	82,500	
Foliar fertilizer	0	15,783	15,783	15,783	
Insecticides	44,000	27,500	27,500	27,500	
Fungicides	0	14,000	14,000	14,000	
Traps					
Subtotal 'Inputs'	278,960	220,303	220,303	220,303	939,868
c. Transportation to city	0	76,000	380,000	380,000	836,000
Total 'Variable costs'	735,460	1,052,969	1,650,136	1,650,136	5,088,702
3. Administrative costs					
Administration ^a	73,546	73,546	127,014	127,014	
Technical assistance ^b	50,000	50,000	50,000	50,000	
Subtotal 'Fixed charges'	123,546	147,697	177,014	177,014	625,270
4. Total operational costs (2+3)	859,006	1,200,666	1,827,150	1,827,150	5,713,972
5. Subtotal 'Investments' + 'Operational costs' (1+4)	1,548,006	1,200,666	1,827,150	1,827,150	6,402,972
6. Sales					
First grade	0	1,568,000	7,840,000	7,840,000	
Second grade	0	300,000	1,500,000	1,500,000	
Total 'Sales'	0	1,868,000	9,340,000	9,340,000	20,548,000

Part 4. Cash flow without financing and calculation of profitability

Financial parameters

Item	Month				Total
	0	0-1	0-2	2-3	
Net flow	(1,548,006)	667,334	7,512,850	7,512,850	14,145,028
Financial rate of return:		67.09%	Minimum acceptable:		12%
Net present value:		7,730,642	Minimum acceptable:		0
Discount rate:		12%			
Pre-production investment ^c :			2,548,561		
Ratio of sales to number of workdays ^d :			34,114		
Ratio of cash flow to number of workdays ^e :			23,484		
Average number of workdays per year ^f :			201		

Part 5. Cash flow with financing and calculation of profitability.

Item	Month			
	0	0-1	1-2	2-3
Flow without credit:	(1,548,006)	667,334	7,512,850	7,512,850
Financial plan ^g :	2,548,561	0	(1,587,659)	(1,587,659)
Net flow with financing:	(2,548,561)	1,667,889	5,925,191	5,925,191
Financial rate of return:	48.18%	Minimum acceptable:		12%
Net present value:	5,821,582	Minimum acceptable:		0
Discount rate:	12%			

- Administration expenditures are calculated as unit percentage (10%) of investment in labor and inputs.
- Three levels of costs for technical assistance are proposed: crop is hardy and well known: \$25,000; crop is hardy and new, and crop is not hardy but is well known: \$50,000; and crop is not hardy and is new: \$150,000.
- Total amount of investments in assets and required expenditures during pre-production period.
- Sum of sales obtained per paid workday during complete cycle.
- Sum of cash flow per paid workday during complete cycle.
- Average number of workdays per year.
- Unit deflated interest rate assumed to be 16% per year.

Appendix 4. Format for Ranking Market Options

Small-Scale Producer: _____

Code: _____ Area: _____

Interviewer: _____ Date: _____

Good market options

Name of option	Order	Explanation of first two positions
		1. 2.

Moderately good market options

Name of option	Order

Poor market options

Name of option	Order	Explanation of last two positions
		Last Penultimate

Can the option you like best be made even better? Yes _____ No _____

If yes, what do you think would make it even better?

If no, why can't it be made better?

Appendix 5. Glossary

Agreement

The most informal type of commercial relation between a buyer and a seller, in which price matches the product offered.

Aggregate value

The result of agro-industrial activity, or post-harvest, processing or transformation operations, that can vary in complexity from levels I to III. Level I refers to simple operations such as washing, cleaning, clearing, roasting, classification, baling, and storage. Level II includes more complicated processes such as cooling, milling, cutting, mixing, dehydrating, cooking, and canning. Level III operations are more sophisticated, such as extraction, distillation, freezing, fermentation, extrusion, and enzymatic processes.

Agricultural or Livestock product

Products with little or no aggregate value at the rural level.

Agro-industrial product

Product with some degree of aggregate value; in this case, at the rural level.

Alliance

A type of commercial relation between a buyer and a seller with an intermediate level of formality.

Annual cash flow

For the financial model, this represents the net gain or loss generated by the project. The series of these flows is used to calculate financial profitability parameters.

Average number of workdays per year

The total number of workdays required during the duration of the project divided by the number of years of the project.

Biophysical and socio-economic profile

A brief document that summarizes biophysical, social, economic, and institutional aspects of a territory or region, thus providing a holistic perspective of the region quickly.

Break-even point

The amount of sales in currency or units when income equals costs, or when the gross margin covers fixed costs.

Capacity

Refers to installed capacity, or the maximum volume of production of an agro-industry during a given period of time, generally one year.

Chain link

A connection or tie of a production-to-consumption system consisting of actors, a predominant function, activities, and institutions. Goods, services, money and value flow through this connection. The main predominant functions are production, post-harvest handling, processing or transformation, marketing and consumption.

Closed questions

Questions that include all possible answers, of which one or several will be selected by the interviewee. Multiple choice and rankings are examples of closed questions.

Comparative advantage

A plus achieved by an individual, organization or region that results in superior product quality, price or differentiation. This plus is mainly a result of biophysical conditions, and/or cheap raw materials and labor.

Competitive advantage

A plus achieved by an individual, organization or region resulting in superior product quality, price or differentiation. This plus is a result of a combination of biophysical conditions and human and social capital.

Concept testing

A market research method used to examine the attractiveness of a new product idea among potential consumers.

Contract

The most formal type of commercial relationship between a buyer and seller, in which both parties are obliged by a legal document to perform specific functions.

Convenience sample

Procedure in which a sample is selected according to the ease of obtaining information.

Convenience products

Products that can be easily and quickly prepared and/or consumed (food), or assembled and used (household products).

Conversion factor

The ratio or proportion relative to the amount of final products, or by-products, obtained from a given unit of raw material. For example, if we obtain 0.4 kg of dried cassava chips from each kilogram of fresh cassava roots, then the conversion factor would be 0.4.

Decision-making criteria

In the context of this manual, these refer to aspects that the small-scale rural producer takes into account when selecting a product to sell.

Discount rate

The interest rate used to convert a series of annual flows to a single present value (year 0).

Distribution

One of the four marketing variables that focuses on making the product available to the final consumer.

Diversification

A business growth strategy to produce new products for new markets (Product-market growth matrix). Most commonly, to expand the product portfolio of an enterprise or region.

Effective cash flow per workday

The sum of cash flows during a project's life is divided by the total number of workdays.

Ethnic market

The consumers interested in purchasing products, mainly food and beverages, closely related to their culture and/or race.

Evaluation criteria

In the context of this manual, the aspects analyzed when selecting or discarding elements, as in the case of market options. The criteria used are feasibility for smallholders, attractiveness as business, and contribution to production sustainability.

Extended production chain

The production chain concept enriched by two additional aspects: economic organizations and rural business support services along the chain.

Fair Trade

An alternative North-South commercial movement that promotes just, higher prices for goods produced by organized, small-scale and/or disadvantaged producers. Fair Trade still handles a marginal percentage of North-South trade.

Financial rate of return (FRR)

An interest rate that discounts a series of annual cash flows in such a way that the present value of the series is equal to the initial investment.

Fixed costs

Costs that do not vary with production volume and remain relatively stable; for example, administration and surveillance.

Food security

The condition in which an individual has access to sufficient and adequate sources of nutrition. Increased productivity and income diversification are two main strategies to achieve it.

FRR with financing

The FRR calculated and including financing expenditures.

FRR without financing

The FRR calculated as a parameter of pure profitability because it excludes financing expenditures.

Goods

Tangible products.

Gross margin

Accounting term equivalent to sales minus variable costs. It can be expressed as a percentage or as a sum of money.

Growth rate

The annual percentage increase in market demand. Growth can be high (more than 6% per year); average (4%-6%); low (1%-3%, similar to the population growth rate); null; or negative.

Ideotype

The concept that small-scale rural producers have of an ideal product. It is used in participatory evaluation of market options.

Level of technology

Degree of technological complexity needed to adequately develop a product. It is similar to 'technical requirement'.

Local support services

In this manual, this term refers to the informal and formal activities, supplied in a given territory by local and external providers, which make possible rural-sector economic activities. These activities include savings and credit, technical assistance, market information, transportation, communications, etc.

Market

Consumers and organizations that are willing to buy a given product (a good or service).

Market development

A business growth strategy to identify and develop new market segments for current products. New market segments can comprise new clients, institutional markets, other geographical areas, and export.

Market opportunity

A given product or service presenting high growth or for which the levels of demand exceeds supply, and an organization or region can produce profitably.

Market penetration

A business growth strategy to increase the sale of products in current market segments without changing the product offered. This can be done by lowering prices, enhancing promotion, and increasing distribution.

Market research

A systematic process in which studies are designed to collect, analyze, and report pertinent data and discoveries for a specific marketing situation confronted by the organization. The scope of market research objectives is extremely broad.

Marketing

A social and business activity that focuses on identifying and satisfying market needs through a profitable and socially responsible production and supply of products in the form of goods and/or services.

Marketing variables

The set of controllable instruments (product, price, distribution and promotion), used by marketers to obtain a desired response from the target market.

Net margin

Accounting term equivalent to net gain, that is, sales minus both variable and fixed costs. It can be expressed as a percentage or as a sum of money.

Net present value (NPV)

The value in year 0 of a series of annual cash flows generated by a project if discounted using an interest rate equal to the opportunity cost for capital.

NPV with financing

The calculated net present value, but including financing expenditures.

NPV without financing

The calculated net present value, but excluding financing expenditures.

Nutraceuticals

Natural and health food products that can cure or prevent ailments. Examples: fiber, vegetables, yoghurt, oats, whole rice, whole bread, etc.

Open questions

Questions that allow the interviewee to answer in his or her own words.

Opportunity cost of capital

Interest that the financial system recognizes for savings; for example, the interest for fixed-term deposits.

Participatory

Adjective that refers to methods in which the client or beneficiary takes an active role in decision-making.

Pre-production cycle

Period of time between crop planting and the point in time when it reaches 30% of its expected yield potential.

Pre-production investment

The amount of money spent before the first crop is harvested.

Price

Marketing variable that defines how much will be charged for a product or service.

Price stability

Degree of variability of product prices, which can be measured with an index equivalent to the standard deviation of a deflated series of at least 18 monthly prices.

Primary information

In market research, this is the information obtained firsthand by using several communication methods, for example, personal interviews and group sessions.

Probability sample

Procedure in which the elements of a sample are chosen at random.

Processing

An operation applied to a given product that results in an improved or preferred characteristic, but which does not change much the product's physical appearance. (See Aggregate value)

Product

Marketing variable that defines the characteristics of the object or service that will be marketed.

Product card

A format that is especially designed for participatory evaluation. Each format comprises a card that represents the concept of one market option. The cards are then organized according to preferences of small-scale rural producers.

Product development

A business growth strategy for offering new or modified products to current market segments. The products can be improved, or differently packaged or labeled.

Product differentiation

A distinct selling point, natural or artificial, that distinguishes a product from others. This is a key marketing strategy.

Production chain

A system that consists of actors and organizations, relations, functions, and product, cash and value flows that make possible the transfer of a good or service from the producer to the final consumer. A production chain is made up of inter-related links, which are generally production, post-harvest and processing, marketing and consumption

Product-Market growth matrix

A simple, powerful conceptual framework developed by I. Ansoff, based on two variables, product and market, that suggests the following four growth strategies for an enterprise: market penetration, market development, product development and diversification. This framework can be applied to a given territory and is widely used in Strategic Planning.

Project

A series of activities planned and carried out to achieve an objective within a defined period of time and with predetermined resources.

Promotion

Marketing variable that determines how clients and consumers are informed about a product or service, or how they are encouraged to acquire it.

Quota sample

Procedure in which a specific number of elements of each group or segment of a given population is included in the sample.

Renewable raw materials

Natural inputs that can be replenished through agricultural production.

Retailer

Merchant who sells products directly to the final consumer, generally in small quantities.

Risk aversion

The condition that avoids any type of activity, especially business-related, that can have uncertain outcomes.

Rural agro-industry

Economic activity that generates aggregate value for agricultural and livestock products in the field.

Sales per workday

Total value of sales during the project's life, divided by the total number of workdays.

Sample

A part or segment of a population selected as representative of the targeted population.

Sample unit

In market research, the person who is contacted to obtain information.

Sampling procedure

Method used to choose a population sample.

Secondary information

In market research, this is the information obtained secondhand; that is, from documents or Internet.

Sensitivity analysis

A study that uses a financial profitability model to determine those variables that most affect a given financial parameter.

Services

Products that are not tangible.

Structured survey

Research tool consisting of a questionnaire that is applied to all interviewees alike.

Subsistence farming

Agricultural activity that centers principally on producing food for the small-scale producer's family. Surplus is scarce or nil.

Sustainability

Permanence of any condition; for example, the productive capacity of the agricultural sector. It is also applied to the continued existence over time of any economic activity or organization.

System

A series or grouping of related or connected elements so that they form a unit or a whole.

Technical requirement

The level of know-how, supervision, or inputs required for a crop or agro-industrial process to obtain the expected output.

Timetable

A tool to plan and organize projects that defines the sequence of activities, their duration, and the person or institution responsible for activities.

Total cycle

Period of a crop between planting and the point where productivity decreases to below 30% of the crop's maximum potential.

Transformation

A series of operations applied to a given raw material that results in a different product, with improved or preferred characteristics. (See Aggregate value).

Type of producer

Classification of small-scale rural producers according to a given variable of interest, such as degree of market orientation or level of wellbeing.

Unstructured survey

Research tool consisting of an interview guide that allows the interviewer to direct each interview according to the answers given.

Variable costs

Costs that vary directly with the volume produced; for example, raw materials, packaging, and fuel.

Wholesalers

Middlemen who sell to retailers and other smaller intermediaries.

Working capital

The funds needed to finance the variable and fixed costs of producing or purchasing a product that is later sold. When the company receives payment for these products, the working capital returns to the company, and so on. The working capital requirement is mainly a function of the unit cost of production, sales volume and payment method.