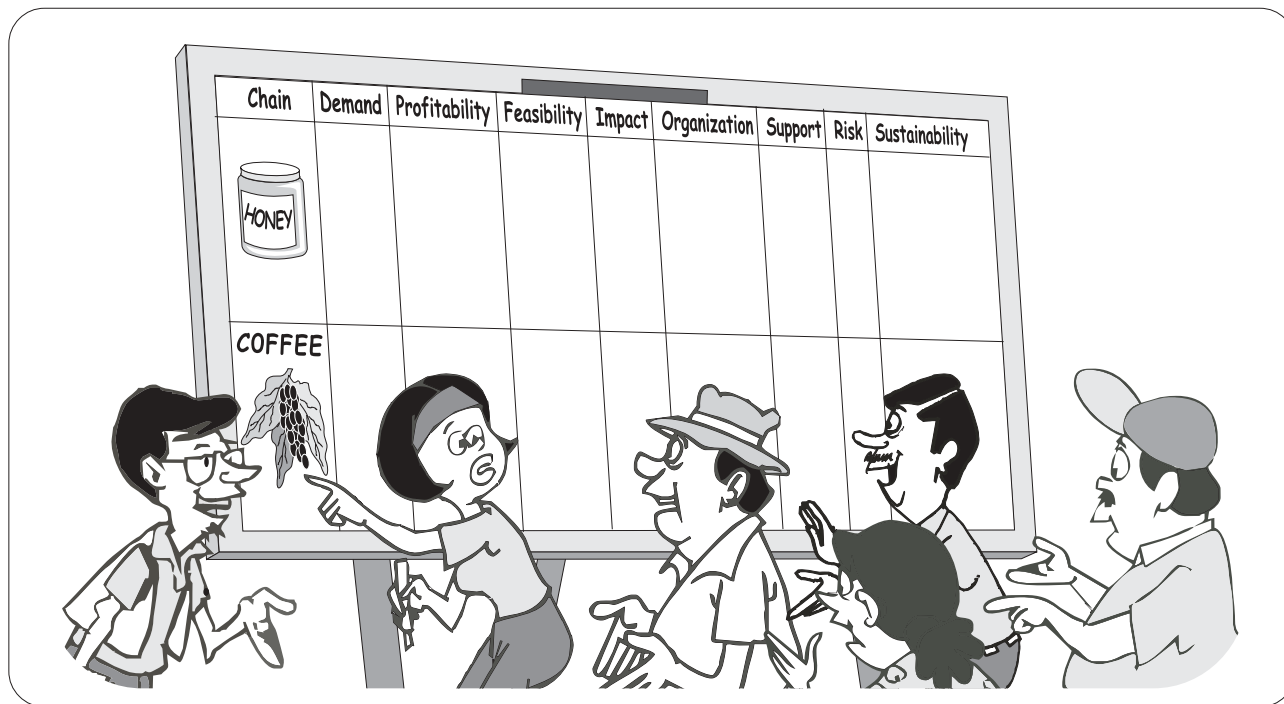


THE PRACTICAL WORK

SECTION 5

Selecting a Market Chain



Guiding questions

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

Introduction

The previous sections have outlined the basic principles and concepts for the rural agroenterprise development methodology including an overview of a market chain, functions of the chain actors, the wider view of the market chain, support services, and an outline of the basic steps in designing a strategy for increasing market chain competitiveness. This section will focus on the first practical step in the design of the market chain strategy. This is the selection of a market chain.

Selection of a market chain can be based on a range of criteria. In some cases service providers will follow a decision made by a third

party or follow the recommendations of a previous marketing study. In other cases a decision can be based on what is mainly produced in the project area. These are passive arrangements and our experience indicates that if a market decision is taken from a third party's perspective with no primary analysis by the group that is about to engage in a marketing process, the chances of developing a sustainable or appropriate business are reduced. Making a decision on which market chain to analyze is fundamental to the process and therefore needs to be taken seriously.

If you have followed the RAeD process for agroenterprise development, you will have made a selection based on the information in Guide 3

of this series, entitled “Identifying Market Opportunities for Smallholder Producers and Processors”¹². There is, however, no one correct way for making a choice of markets since it is a decision of the organization that will implement the agroenterprise process. Whatever the criteria used for selection, it is important to reflect upon the impact that the use of a particular set of criteria may have on the success, or not, of the market chain selected. Here are some helpful tips for selection criteria that have been useful in previous applications of the methodology. This section explains the ideas briefly, and ends with the presentation of a concrete field experience.

Selection Criteria Used to Choose an Appropriate Market Chain

The following criteria may be useful but do not represent an exhaustive list and they should be modified according to the criteria of the organization that will lead the process. However, in most cases the following principles are a useful guide:

- Market options must be feasible in the context of the small rural agroenterprise; technological and investment requirements must be in accordance to this socioeconomic context.
- The market option must be attractive as a business; it should offer an adequate profitability or cost-benefit ratio.
- The market option must be sustainable and should not harm the environment.

Market demand

How much demand is there for the market chain's product? Is the market for this product growing rapidly or slowly? Is it stable or diminishing? We recommend working with products that show strong to moderate market growth, as this usually implies the market can absorb additional supply. In the case of new products, a survey of intent to buy can be done to identify potential market size¹². It is best to do your own study but you can use information from recent market studies, or surveys made by private or state institutions.

Profitability

How profitable is the production or processing of this product? How does the product's profitability compare with what a bank pays on

money in a savings account? Profitability of various products can be done by comparing gross margins, or through calculating the internal rate of return (IRR) of a product. We recommend that those, **not** familiar with the IRR technique, seek advice from an accountant. In evaluating profitability, there are no hard and fast rules, given that the opportunity costs for labor tend to be low or nonexistent in many rural areas. It is important that the product be sufficiently profitable for the producers at actual market prices, and that the market demand be sufficient to assimilate additional produce without entering a state of oversupply and price decline.

Feasibility of production

Even though market demand exists for a product, it is vital to be sure that it is possible to produce this product in the project area given existing social, economic, and environmental conditions with the quality that the market demands. Is the production system for this product consistent with sustainable natural resource management? The selection of market chains that adapt to existing conditions and coincide with the facilitating organization's concept of natural resource management is recommended. If this is not the case, the facilitating organization should identify strategies to resolve feasibility limitations (for example, find a supplier of credit who can assist with installation costs of perennial crops such as fruits, simple systems of water harvest, micro-irrigation systems, or the identification of improved post-harvest technologies). The existence of feasibility questions should not necessarily eliminate the product since solutions can be included as part of the activities to increase the market chain's competitiveness.

Potential impact

How many families could benefit from a strategy to increase competitiveness in this market chain? Will this strategy generate strong, medium, or low impact, in terms of income for producers? What impact will this strategy have on least favored groups/on women as opposed to men? It is also important to ascertain if the strategy will generate rural farm or non-farm employment, and for whom. If the target population of the project or organization is a specific segment of the population (for example, small-scale producers, women, indigenous populations, youth, or others), it is important to ask ourselves if this group will be able to take advantage of the additional gains foreseen by the

12. For more information, consult Ostertag (1999).

project. Strategies with greater impact generate interest among possible participants and contribute to the business development of the area as they bring in additional profits instead of merely redistributing existing ones.

Existing business organization

Many researchers and public sector workers are constraint oriented and can be highly risk adverse. Traditional extension workers often look for problems and then set programs to overcome them. A business approach is different; it seeks opportunities and then evaluates business options, investment, cash flow, and profit to make decisions. The lead organization should assess aspects such as: What are the business organizations in the market chain like? Are there formal or informal groups of producers, processors, or traders in this market chain? How strong or weak are they in business terms? Is there coordination among them now, or was there in the past? Do not to leave out informal actors and organizations such as local and regional traders and their networks of suppliers, who despite being informal are business organizations that exist and function with some grade of effectiveness in the zone.

Support agencies

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

Risk assessment

One of the more difficult criteria to assess is an appropriate level of risk that a client group should take on. In formal terms, risk can be measured in terms of exposure to credit (debt), suitability of producing a particular product in a selected area, other players in the market, level of technology required for the new business, price and volume volatility of the market, number of buyers, cohesion of the group, and access to technical and financial services. Risk management is based on having sufficient information to make an informed decision. If the likely investment is low, less information is required than if the investment is high.

In assessing risk, the facilitator should consider the investment in a new market chain intervention in relation to the existing farming mix, and the potential to raise incomes with new opportunities. New business opportunities need to be discussed carefully with a client group in terms of land, labor, and capital availability. Also the farmer group should be assessed with regard to their view of credit, the common use of labor and the innovation level they would like to accept. As a rule, profitability of an enterprise increases with the level of risk and according to the Ansoff matrix (Table 6), risk increases with the following types of products and markets, from 1 to 4. Diversification, defined as presenting a new product into a new market, is the highest level of risk in this matrix and herein lies a dilemma. Analyses of products based on demand often biases opportunities towards higher risk and towards diversification. Farmers who are seeking increased incomes are also aware that increasing their production of inelastic¹³ staple foods may not provide them with a better income. Therefore, it is not unusual for farmers to want to take on additional risk when they seek new business opportunities.

Table 6. Ansoff matrix for risk assessment.

	Existing products	New products
Existing markets	1. Market penetration	3. Product development
New markets	2. Market development	4. Diversification

The facilitator can guide groups towards a sensible level of risk based on their experience, skills, and track record. Facilitators may advise newly formed farmer groups to select options that are based on market penetration and market development. Farmers should engage with new markets in a stepwise manner with test plots at first and market trials, before engaging in large scale supply. Groups with more experience in marketing, i.e., those with more assets, savings, ability to act collectively, can take on higher risk

13. An inelastic product is one in which demand does not increase as buyers incomes increase, i.e., the amount of salt that people buys does not change dramatically as incomes increase. A product described as being elastic has market characteristics that increase consumption as incomes rise, i.e., people tend to buy more red meat as their incomes increase.

strategies. Key questions: Where does your selected product fit in the risk matrix? Do you have savings to support this new business or will you need credit? If you need credit, will your business plan pay the necessary capital and interest payments? How much of your land (%) will you give to this product? What would be the consequences if the business venture failed? Are you planning to test the new business in a small plot at first? Where do you feel there is most risk in this new business? Do you have plans to overcome these areas of risk? Do you have partners who will share your risk?

Environmental sustainability

A final but important criterion that must be addressed is the sustainability and environmental impact of the new business. For most cases, the scale of the activity may not merit a full study on this, but the group should be aware of issues such as pollution, soil degradation, run off, types of materials, and chemicals being used. In each case, the group should ask if there are any hazards with the new business venture. Does the group need any specific training or knowledge on how to use a new chemical or material? Is there any risk of pollution? If there are hazards, long- or short-term, what are the measures being taken to address these hazards?

Definition of Individualized Selection Criteria

Each organization or group of organizations should develop their own selection criteria. There are several methodological options for selection ranging from simple (voting or discussion) to more complex (technical studies). Simple methodologies are quick, while technical methods permit more analysis and greater security in the decision made. Essentially the decision-making process should be undertaken in a systematic manner and in a way that takes note of the participants desires and perspectives.

A Methodology for Prioritizing Market Chains

We recommend a brainstorming session to agree on selection criteria. This exercise can be done internally within the facilitating organization or among various organizations, if there is a committee for rural enterprise development or other area organizations with this focus.

The steps to follow in this process are:

Identification of criteria

- (a) Select two people in the group to organize results, one to facilitate and the other to document the decisions.
- (b) Ask each participant to write a list of three criteria in response to the question: "What are the most important criteria for selecting a market chain with which to work in our area?" Each answer should be recorded on a card given to the facilitator.
- (c) The facilitator reads out each card and places it where it is visible to all participants without additional comments. Only clarifying questions are permitted at this time.
- (d) Once all ideas have been read out, they are grouped by common themes. Some cards do not fit in any group, they are put aside for later discussion and revision.
- (e) The facilitator invites participants to revise each group of cards to see if one or more common criteria emerge or can be developed.
- (f) When work with the groups of cards is completed, the outlier cards that were not initially classified are reviewed again, to see if the idea is already in another group or if it is worthwhile including it as a separate theme.
- (g) Once the themes are defined, there should be a list of selection criteria to apply to the market chains of a given area.

At this point it is useful to review all the criteria selected and decide on which are the most critical for the decision-making process, i.e., for action. We recommend a list of three to four criteria with easily measurable indicators. Once the criteria are selected, the group moves to identify indicators and measure each one.

Using the criteria

Based on the list of criteria identified, the group proceeds to define indicators for each. For example, if one of our criteria is "potential impact", we need to define how impact will be measured (persons, families, communities, municipalities, etc.) and where the data will be sourced. The end product from this session will be a list of operational criteria with their respective forms of measurement and data sources.

Prioritizing criteria according to relative importance

The next step is to prioritize the criteria and their indicators: To evaluate this, the group

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should consider questions such as: Are market chains that involve more producers of higher priority than those that are more profitable? Is it more important that the activity be sustainable in environmental terms, or profitable? This step gives a specific weight to each criterion with the purpose of enlarging the differences between the options and thus facilitating the selection of market chains. At the end of this process, the group should have arranged the criteria, from the most to the least important, with a weight or score assigned.

Selection Tools

Using the list of criteria with the indicators and sources of information, the final step is the construction of a selection tool. This tool can take the form of a decision tree (see Example 1) or a simple weighted scoring matrix (see Example 2). Once the tool is established, it is applied to all potential market chains in an area.

Example 1: The decision tree of CIPASLA, Colombia

To facilitate selection of market chains, agendas of support organizations, and

interests of community groups, the Rural Agroindustrial Committee (RAI) of the Consorcio Interinstitucional para una Agricultura Sostenible en Ladera (CIPASLA) developed the decision tree presented in Figure 7. The objective was to compare a list of market chains with market opportunities, favorable conditions for production in the zone, and with some degree of interest or organization of producers. The process was carried by four local NGOs, a governmental organization, and a producer association in three 2-hour meetings and was useful for the members of the RAI.

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

Market demand

The growth of market demand is organized in three categories:

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

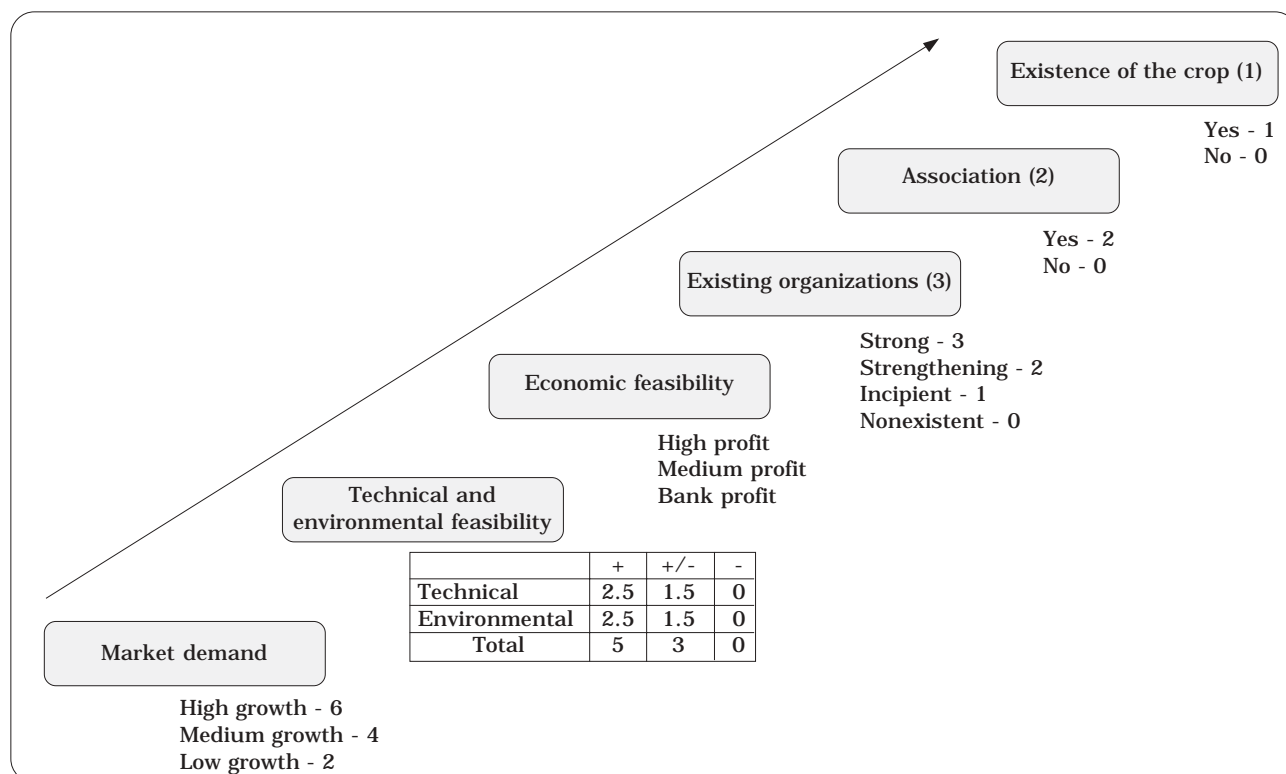


Figure 7. Decision tree of rural agroindustrial committee of CIPASLA.

SOURCE: Authors' adaptation of RAI workshop information with CIPASLA, 2000.

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

Following these criteria, we created the following distribution of products (Table 7).

Technical and environmental feasibility

The matrix is read in the following way as shown in Table 8.

Economic feasibility

Market chains are grouped according to three levels of profitability:

1. **High profitability:** The product’s IRR is 6 points or more over the bank’s savings account interest rate.
2. **Medium profitability:** The product’s IRR is between 1 and 5 points over the bank’s savings account interest rate.

Table 7. Growth prospects and product types.

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

3. **Bank profitability:** The product’s IRR is equal to the bank’s savings account interest rate.

Existing organization

The level of business organization in each market chain is assessed using the following criteria (Table 9).

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

Support agencies

Selection of the partner organization was based on the principle that the organization was interested in working with a range of participants in the market chain, i.e., would work with producers, traders, processors, retailers in a process that would strengthen the market chain in a systemic manner.

Existence of the crop in the zone

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

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

Table 8. Technical and environmental issues against feasibility index.

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

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Table 9. Organizational capacity assessment.

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

Table 10. Assessment of products by weighted scoring.

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

Example 2: Simple weighted scoring matrix¹⁴

Another way to implement a decision-making process using the criteria identified is to use a weighted scoring matrix as shown in the following example (Table 10).

This system attempted to combine a simple scoring system with the relative importance of the selected criteria to achieve an objective decision-making process. In this example, Product B had a higher overall score but when the weighted criteria are applied, Product A comes out highest.

This section has presented some criteria that have been useful for selecting market chains within an area. The identification of prioritized

market chains is the first step in the design of a strategy to increase market chain competitiveness.

Merits of a Pilot Project to Test the Process

When the agroenterprise process was applied in Madagascar, the service provider, Catholic Relief Services (CRS) led the process (Box 3). CRS is leading a development project in four provinces of Madagascar and before applying the agroenterprise approach to a large project zone, the field teams and agricultural advisors at the management level wanted to test the methodology at a pilot level, during a short off-season. This use of a pilot project enabled the staff to gain experience in a 3- to 4-month period, observe the opportunities and limitations of the process, and also find out what criteria farmers use to assess new crop options.

14. Adapted from Van der Heyden and Camacho (2004), p. 18.

Box 3***Selection criteria used for discarding options***

The product selection criteria used by CRS staff were in six categories. If a product failed in more than one category it was rejected. This was a rapid process that was completed by the field staff.

Selection criteria**1. Ease of production**

Is the crop grown in the area?

Can the crop be grown in the area?

Are people already growing this crop?

Is the crop grown in the off-season?

Does the crop need any special inputs, such as irrigation, pesticides, and fertilizer?

Can the product be produced in the off-season?

2. Market demand

Is there strong market demand?

Is demand based on season or festival? And does that fall into the intended production phase?

Is the demand for high volume or a niche market?

Are there many buyers or only 1?

3. Financial cost of production

Does the production required a high investment?

Is credit required for this production?

4. Social

Does the product have any special social significance? Is the product subject to any taboos?

5. Environment

Does the production come with any hazards or potential harm to the environment?

6. Storage

Is the product to be stored? Is the technology available for storage?

How long can the product be stored if market changes?

A rapid market survey questionnaire was developed by the agroenterprise team. The teams conducted the survey with a range of sales points/market actors in a 10-day period using four teams. The survey focused on the major local market town of Ansirabe, and other local markets in the area. No information was collected on national or international markets. A CRS Project Officer led each team. The information was synthesized at a group meeting and results presented to farmers. The timeframe for the development of the questionnaire was 3 days.

Considerable preparation time was spent in developing a simple questionnaire and translating it into Malagasy. The Project Officers focused on two questions in their questionnaire, (i) what do people buy most and (ii) what is scarce in the market.

The group developed the discard criteria, the first level of discard was based on whether the crop could be grown in the area and this reduced products from 50 to 31. The next level of discard used their own 14-point criteria and this enabled them to reduce the number from 31 to 11 possibilities. The three market opportunity matrices, e.g., production, marketing and financial analysis were used to reduce the possibilities to six options. Farmers reviewed these options prior to planting.

All six options from the Market Opportunity Identification survey were tested by some farmers. Project staff found that the more progressive farmers, located on the main road wanted to try more exotic ideas, whereas the poorer farmers in the remote areas were not keen to try any new ideas. The major point is that the marketing study clearly encouraged innovations to take place, but farmers wanted to match their risk profile with their investments.